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Anvil	11
Argco	15
Core & Main	12
CST	14
Decoshield	76
Ferguson	ВС
Harrington	3
Hose Monster	50
JG Innovations	84
Metraflex	69
Potter	67
Reliable	IFC, 46-47
Тусо	IBC
Victaulic	5
Viking	2

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National Fire Sprinkler Magazine

May/June 2020 • No. 220

FEATURES

- 27 **SAM Buyer's Guide**
- **PRO Buyer's Guide**
- 68 The Chemistry of Corrosion Control and Benefits of **Glycerin-based Antifreeze** by Manny Silva
- 70 **Advancements in Training** by Kevin Hall
- 74 10 Myths About Fire Sprinklers-and How to Refute Them by Lainey Liotta

DEPARTMENTS

- Calendar
- From the President's Desk by Shane Ray Opportunities with Difficulties
- From the Chairman's Desk by Kent Mezaros Crazy Times
- 10 **Contractor's Cue**
- 13 Codes Corner - by Jeffrey M. Hugo, CBO Changes for NFPA 13R and Podium Buildings from 2015 to 2021 IBC
- 16 **New Members**
- Notes from the Fire Scene by Vickie Pritchett A Force to be Reckoned With
- 22 **Fire Sprinkers in Action**
- 26 ITeM - by Vince Powers The Value of Training
- 76 Social Scene - by Joanne Genadio Get Ready for Our Member Takeover Issue
- **HQ News**
- 79 **People**
- 81 **Chapters in Action**
- 86 **Sprinkling of News**
- 90 **Regional News**





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Navigating the ITM Liability Requirements

Plantsville, CT

6/9/2020

Sprinkler System Plan Review

Madison, WI

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Exton, PA

6/23/2020

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7/2/2020

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(1 day)

Baltimore, MD

8/6/2020

NFPA 13, 14, 20 Update 2016

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Requirements

Baltimore, MD

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10/1/2020

Pumps for Fire Protection

Baltimore, MD

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Hydraulics for Fire Protection

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Navigating the ITM Liability

Requirements

Baltimore, MD

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NFPA 13, 14, 20 Update 2016

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John Norman

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Pete Schwab, Wayne Automatic

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Harold Nothhaft, L. Nothhaft & Son
Kevin Ortyl, Viking Corporation

Thank you to the NFSA Awards Committee:

Buck Buchanan (Chair), Jim Boulanger, Bob Bussiere, James Golinveaux, John Kauffman, Vickie Pritchett, Jack Thacker, Terry Victor

From the President's Desk

Shane Ray

Opportunities from Difficulties

hat a difference can be made in a matter of weeks, days and hours. I even feel like minutes might be appropriate when describing the reality we are dealing with in our nation and world. The coronavirus has reminded us that life is indeed fragile, and it has also reminded us of the value of our industry and association.

The first article I wrote for this issue was full of information about our conference and how excited I was to have President Harry S. Truman as our keynote speaker. Ok, it was actually his grandson, Clifton Truman Daniels. This conference was slated to be one of our best ever non-expo years, with lots of great technical sessions and big room sessions on the economy and current issues within our industry. A slate of well-deserving awardees that were selected by our Awards Committee and presented to our Board of Directors were to be honored.



This was before a national emergency declared by the President of the United States, and before the World Health Organization declared a world-wide pandemic. It is safe to say that COVID-19 disrupted our plans, our country, and our world.

NFSA's staff was working hard prior to your Board of Directors convening in Clearwater, Florida because the President of the United States made a declaration of a public health emergency. As we monitored the leadership in Arizona, as they had one case at Arizona State University, they had not declared a state of emergency or had they had a major outbreak. However, the state of Washington was leading the way with a state of emergency and an outbreak. We did not cancel the board meeting because of all the factors we monitor in making decisions. I am glad we didn't. However, the information available to our Executive and Finance Committee and staff was enough by the time we gathered on March 13th to make the decision that our 2020 Annual Seminar and Business & Leadership Conference would be cancelled.

The seminar committee met and has plans for a virtual version of the conference, and quickly shifted its thoughts to our 2021 conference in Las Vegas, which will be an Expo year. Make sure you follow us on our social media channels to stay up to date on our conference plans, as well as online training opportunities.

During the first week of the declared emergency, Team NFSA ensured our staff and members were as safe and secure as possible to fit their personal and family situations. We kept NFSA headquarters opened with limited staff and opened a coordination center in Tennessee where we had a team of people and access to governmental information.

Our teams in offices and at home engaged and created resources using new tools to keep our industry at work. I was in meetings in Washington, D.C. prior to flying to the board meeting and our team was on calls with the United States Fire Administration (USFA) and the Federal Emergency Management Agency (FEMA) immediately following the declaration of a national emergency. We utilized the Department of Homeland Security Cybersecurity & Infrastructure Security Agency list of essential services, as originally called out in the Homeland Security Act of 2002. Immediately, we began to help our members continue working and getting materials and product across the country. We wrote letters to the "Big 7" (government officials associations in D.C.) to remind them of the essential service that fire sprinkler contractors, suppliers, and manufacturers provide.

On the next page is the letter that I sent to the Directors of the big policy organizations, including League of Cities, National Association of County Officials, National Association of Governors, Conference of Mayors, and ICMA. I am proud of the National Fire Sprinkler Association, our staff, our Board, council and committee members, and all that we serve. As my mentor and retired Senior Policy Advisor to the President Jim Dalton said in a note he sent me during the board meeting, tough times don't last, but tough people do. Those words have guided us as we have navigated these uncharted waters on your behalf. We have realized the difference that our voices can and do make by utilizing the tools, staff, and members for a common cause. It was great to see that we are the true Voice of the Industry.

Thank you to our members who engaged in our campaigns that we conducted in every state, imploring Governors to classify the fire sprinkler industry as an essential service. It was the first time in my five years as your president to see our staff and so many members so engaged in one focus. We all owe a lot of thanks to the NFSA staff for preparing us to work remote, communicate with one another and our members so effectively, and to have the tools to monitor legislation and regulations like never before. Of course, this would not have been possible without the investment of our members and the full support of our Board of Directors.

continued on page 8

From the President's Desk Shane Ray

We stand ready to continue our efforts on your behalf for as long as they are needed. We are reminded daily of the important nature of your work and our work in service to you. As the time of this writing, we had executive orders of some type in every state and your team at NFSA is not only aware of them, we are interpreting them and reaching out to officials on your behalf. However, that isn't enough. We are already beginning plans for coming out of this and we are preparing to do our part to ensure that fire sprinklers are elevated as essential services and as essential to fire- and life-safety in America.

I hope that by the time you are reading this communication the worst is behind us and that you and your family are safe from the coronavirus and its deadly impact. I hope we are united and moving forward, knowing that working together we will play a key role in the resurgence of our great country.

I thank you all for your continued support of NFSA, and I pledge

that our team is focused on the future and ready and willing to serve with care. I'll close with a quote from Harry S. Truman, who said it well when he shared, "A pessimist is one who makes difficulties of the opportunities and an optimist is one who makes opportunities of the difficulties." It's an honor to focus on opportunities, even in the midst of an international crisis.

In service.

NFSA COVID-19 resources may be found at: https://nfsa.org/covid-19/

March 19, 2020



Dear Official.

The National Fire Sprinkler Association and our member companies (contractors, manufacturers and suppliers) are playing a very important role in the response to the President's National Emergency declaration.

Along with the ongoing public health emergency, questions have arisen regarding which businesses and industries will be allowed to continue to operate in interstate commerce. Many Executive Orders and legislative actions have been implemented and enacted in recent days.

Having reviewed to the best of our ability, our interpretation is that fire protection is a vital "critical infrastructure industry," in accordance with the Homeland Security Act of 2002. We further believe that the guidance found in the attached memo from the Director of the Cybersecurity and Infrastructure Security Agency reinforces this interpretation.

The fire sprinkler industry is delivering vital products and services to hospitals, schools, shelters, data centers, grocery and drug stores, fire stations, and emergency operations centers around the country. Maintaining fire protection systems is a critical component to public safety, and they play a significant role in the overall Community Risk Reduction (CRR).

Employees from our member companies operating during these trying times are well aware of the importance of observing all government advisories, as well as regulations and declarations. We are committed to following all safeguards and to doing our part to prevent others from being at risk from the virus while we protect all from fire.

Thank you for your service to your community, state, and our country.

A grateful,

Shane Ray

PRESIDENT NATIONAL FIRE SPRINKLER ASSOCIATION

From the Chairman's Desk

Kent Mezaros

Crazy Times

ot one to want to go on record as breaking the "4th Wall" (The fourth wall is a performance convention in which an invisible, imagined wall separates actors from the audience. While the audience can see through this "wall", the convention assumes, the actors act as if they cannot) but with what has recently occurred because of the Coronavirus Pandemic I feel that it is okay for me to do so just this one time. This article is being written as I have just returned from our March Board of Directors meetings.

First, I hope that you all are healthy. It would be naïve of me to think that no one we know will have suffered loss from the pandemic that took a stranglehold over the world. For those that have suffered, my deepest sympathies go out to you. I sit here wondering what we will be dealing with when this publication actually makes it to your desk. I'm hopeful that the worst will be behind us and that the scars have not cut too deep.



The reality and effect of the Coronavirus Pandemic changed quickly while we were at our Board meeting. If it had turned a couple of days earlier, we would have no doubt rescheduled our meeting, most likely gone virtual.

You can reach me at: kmezaros@qrfpss.com kent@quickresponsefireprotection.com However, while together your Board of Directors and President of the Association acted quickly and decisively, cancelling our 2020 Annual Seminar, Engineering and Standards Committee meetings, training events and limiting travel for our staff. In the following days we saw others in the United States do similar and you all know better than I at this time how the unprecedented course of events played out afterwards.

Whatever short-and long-term effects on our nation, economy and industry that come along with this tragedy, please know that NFSA will be here to provide support for all our members. The NFSA President is quick-thinking and swift on his feet and I know he is steering us in the proper direction. It is during difficult times that our membership needs NFSA most. When the crap hits the fan, we most need to be there to provide support. We have a strong and diverse group making up the Board of Directors. Contractors, Manufacturers and Suppliers all sit on the Board. Therefore, we have input from multiple factions when making the difficult decisions events like this force us to do.

As you read on in this edition of NFSM you will notice that this is our annual Buyers Guide edition. I encourage you to do what you can for our Manufacturer and Supplier members who support our industry. Without their generous support, NFSA would not be able to continue to promote and grow the industry that we, our employees and our families depend on to earn a living. The thousands of lives we have collectively saved and the billions of dollars of property losses as well can all be attributed to the hard work of those that came before us, and we all should strive to do the same for those that follow behind us.

History has proven we Americans to be resilient. Our people, our economy and our industry has always bounced back from whatever curves were thrown at us. This time will be no different. We will again be further changed, and hopefully what we learn will only make us better afterwards both as an industry and a society.

God bless and thank you to all NFSA members for your continued support and the opportunity to continue to serve.

Respectfully yours,

Kent Mezaros, Chairman

CONTRACTOR'S CUE

Is Teamwork Important at **Your Place of Business?**

by Robert S Grossman

reat employees are motivated by commitment. They care about the work they do, know that they are valued by their organization and can make a significant contribution to its success. Their organization reaps vitality and excellence.

High-Performance teamwork is more than a group of people working together to accomplish a common task. They have a shared vision and purpose that inspires their performance. They feel accountable for their work, solve problems, make decisions and fully invest themselves in the organization. For a team to achieve highperformance, they must be allowed the time to set their purpose, operating norms, characteristics and desired performance results.

High-Performance teams have been defined as self-managing, multi-functional groups of people who are organized around a whole process and empowered with full responsibility for their success. To achieve high-performance teamwork, certain elements must be present.

Within the teamwork model, three elements must be understood by team members. These include the charter, design, and relationship.

- The CHARTER (or the "why") is the definition of why the team is in existence and provides clarity for team members. It focuses on the customers, purpose, team goals and team vision.
- The DESIGN (or the "what") is the architecture of the systems and structure of the team. It focuses on the core work processes, roles and responsibilities, procedures and norms, and systems.
- The RELATIONSHIP (or the "how") is the area in which team members understand how to relate to each other. In this element, the focus is on trust and respect, communications, cohesion, and synergy.

In High-Performance teams, these areas are not independent. They all impact each other, and the outcomes expected of the team. However, there is a sequence that must drive their development. The charter must be clear before a team can be designed, and a team must be designed well to reduce relationship problems.

Once the team's charter, design, and relationship are established and agreed upon, the team will show the following characteristics:

- A shared mission
- Autonomy and authority
- Interdependence and shared leadership
- Broadly defined jobs
- Meaningful participation in decisions
- Higher performance

In a teamwork environment, the group is enabled to become self-governing with facilitative guidance. This is possible because it is organized around core processes and employees possess multiple skills, are governed by principles and view each other as partners. They also demonstrate an atmosphere of shared leadership and can make decisions.

High-Performance leaders create teamwork by helping them understand their charter, their design, and their relationship. Empowering leaders have a vision and the ability to develop and share it with the entire team. They are driven by a strong motivation and passion for this shared vision.

Additionally, such leaders can establish high levels of rapport and trust among team members. They avoid controlling and coercing team members. Rather, they inspire and induce a high degree of enthusiasm from team members toward meeting the agreed-upon goals.

However, to get to this point, leaders and team members must work through certain processes. The processes that go into building teamwork includes:

- Understanding how teams work
- · Learning effective meeting management skills
- Delegating
- Clarifying team members' roles and responsibilities.
- A system for measuring performance, setting goals and tracking progress

When a team has successfully moved from high potential to high performance, three results are visible. They can:

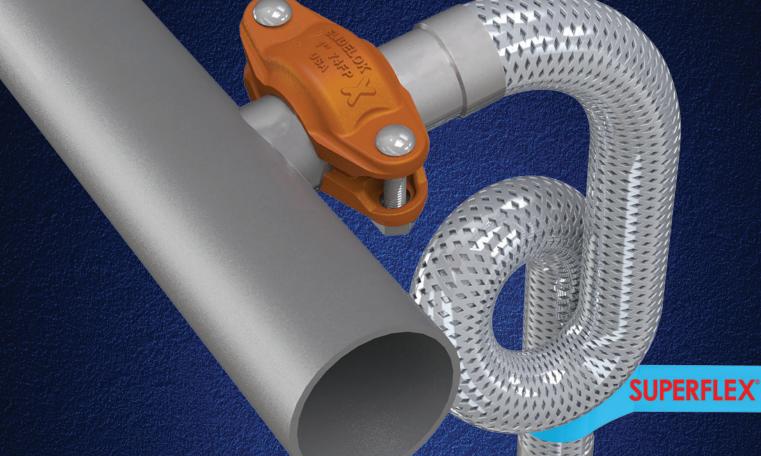
- Raise their goals to meet new business demands
- · Successfully identify and eliminate the most threatening problems and obstacles
- Effectively develop and implement action plans to reach established goals

Is your team performing at this level? If so, you will be better prepared to face the ever-changing dynamics facing organizations across the globe.

Robert S. Grossman is a business growth consultant, trainer/facilitator, coach and speaker with decades of experience. Having achieved success in both the corporate world and as an entrepreneur Robert has helped hundreds of companies with high-performance strategic consulting, training and communications. He coaches business leaders, CEOs, presidents, entrepreneurs and sales professionals.

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Changes for NFPA 13R and Podium Buildings from 2015 to 2021 IBC

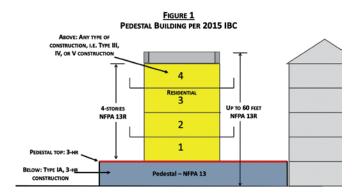
by Jeffrey M. Hugo, CBO, Vice President of Codes and Public Fire Protection



What is a pedestal or podium?

The term *pedestal* or *podium* is not defined by, or found in, the International Building Code (IBC). Rather, these terms refer to a popular style of construction that is a special provision in Section 510 of the IBC which allows a three-hour fire-rated horizontal assembly that forms the pedestal or podium top. The podium top is supported by three-

hour construction, otherwise know as Type IA construction. The podium top can be likened to a horizontal fire wall and the buildings above and below are considered separate, just like buildings on each side of a true fire wall.



Fire sprinkler requirements in the 2015 IBC

Occupancies and buildings below the podium top are required to be sprinklered per NFPA 13. Buildings above and below the podium top are, "...considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction...", according to Section 510.2 of the IBC. This means, in terms of automatic fire sprinklers, above the podium top:

- 1. Occupancies above the podium top may or may not be sprinklered. A business occupancy under the height and area threshold would not be required to be sprinklered.
- 2. Residential occupancies are required to be sprinklered. A residential building of four stories could use the NFPA 13R standard if the total height (60 ft) isn't exceeded.

2018 IBC Changes

The 2018 IBC inserted additional criteria for attics in residential occupancies protected by NFPA 13R systems. These requirements stem from discussions at the December 2015 NFPA 13R Summit hosted by NFPA, after some significant multi-family fires. It is important to note that the Edgewater fire happened after the code change proposal deadline for the 2018 IBC. The technical changes to the IBC are to require sprinklers in occupied attics and attics used for storage, and a single sprinkler when fuel-fired appliances are installed.

The biggest change for pedestal or podium type buildings is where the attic of the NFPA 13R protected building is over 55 feet from the lowest level of required fire department vehicle access. When this height is exceeded, the attic is required to have one of the following:

- 1. Fire sprinklers
- 2. Constructed of fire-retardant-treated wood
- 3. Constructed of non-combustible materials
- 4. Filled entirely with non-combustible insulation

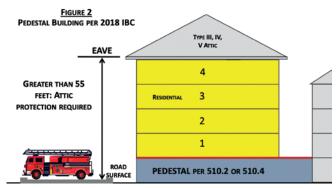
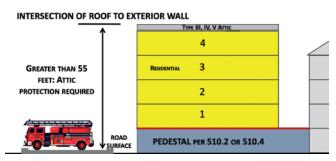
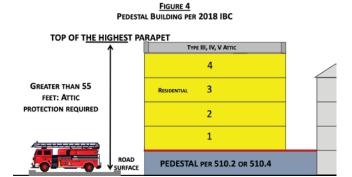


FIGURE 3
PEDESTAL BUILDING PER 2018 IBC



continued from page 13

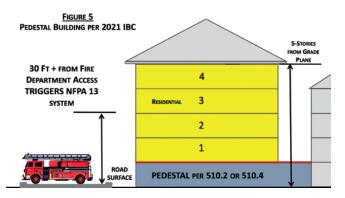


Vertical offsets are addressed in the 2018 IBC. Section 510.2 added a requirement in Condition 1 to require any vertical offset of the 3-hr podium top (horizontal assembly) to maintain the 3-hr continuity. This means that a vertical offset due to grade changes or ceiling heights is treated with the same fire rating as the supporting structure of the podium top. The code was mute on providing this extension of the podium rating in past editions and the designer and code official were left to handle them as alternative methods or modifications.

2021 IBC Changes

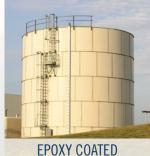
The 2021 IBC, in Section 903.3.1.2 for NFPA 13R protected residential occupancies, has several new thresholds. NFPA 13R has always been permitted to be used in lieu of a NFPA 13 system for residential occupancies however, the traditional thresholds of previous editions of the IBC has changed dramatically. The 2021 IBC has lowered NFPA 13R thresholds to the following:

- 1. Four stories or less above the grade plane. This changes the measurement of stories from the pedestal to the grade plane.
- 2. The floor level of the highest (or lowest) story is 30 feet or less above (or below) the lowest level of fire department vehicle access. This threshold is the same as for standpipes, meaning, if the building is required to have standpipes, it is beyond the NFPA 13R standard and must increase to a NFPA 13 fire sprinkler system.



The changes to the 2021 IBC do not just affect NFPA 13R resi-









FIRE WATER TANKS FOR COMMERCIAL, INDUSTRIAL AND MUNICIPAL APPLICATIONS

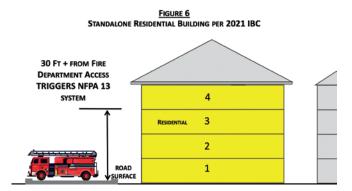
With over 125 years of history, CST is the firmly established leader in bolted and factory welded steel tanks.

- > Constructed in 1/3 the time of field welded saving time and money
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WORLD RECOGNIZED LEADER IN FIRE PROTECTION WATER STORAGE TANKS CST Industries | 903 E 104th Street, Suite 900 | Kansas City, MO 64131 | 844-44-TANKS

continued from page 14

dential buildings on top of a podium building, it affects standalone residential multifamily buildings. The average fourth-floor height of most US hotels and apartments is over 30 feet and the 2021 IBC application (#1 above) to these structures would trigger the increase to install a NFPA 13 system.



The 2021 IBC also addressed combustible interior exit stair construction that has the potential to reduce construction costs. Previous editions of the IBC require a transition from wood exit stair enclosure in the upper building (Type III, IV, V) to a noncombustible material for the stair enclosure of the non-combustible (Type IA) building below. Like the concept for vertical offsets explained above in the 2018 changes, the 2021 IBC, Section 510.2, will allow wood construction for interior exit stair enclosures all the way through both the upper and lower buildings if:

- The building above the podium top is permitted to be Type III, IV, or V construction
- The stair enclosure below the podium top (in the Type IA portion) is enclosed with 3-hr fire rated construction with 3-hr opening protection, such as doors.

NFPA 13 versus NFPA 13R

The NFPA 13R standard provides a sprinkler system for life safety, whereas the NFPA 13 standard provides property protection and life safety. Where NFPA 13 traditionally installs sprinklers in concealed combustible spaces, such as floor/ceiling and attics, there are some exceptions such as using non-combustible, fire retardant treated wood (FRTW) or filling the space with insulation. NFPA 13R installs sprinklers in occupied spaces, such as dwelling units, hallways, and common spaces to protect the occupants.

Balcony sprinklers using NFPA 13

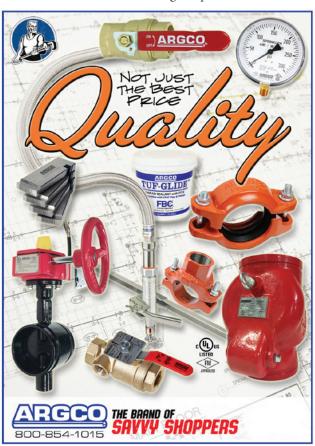
The 2021 IBC change for four-story buildings using NFPA 13 systems changes balcony sprinkler installation. Since the 2003 IBC, sprinklers are required on all residential balconies using NFPA 13R. No edition of the IBC specifically mandates balcony sprinklers for residential using NFPA 13. NFPA 13 requires sprinklers under combustible balconies that are over four feet in width (projection) or under projections two feet in width where combustibles are stored. For example, a six-by-eight-foot balcony with a roof above, constructed of or covered with non-combustible, limited-combustible, or fire-retardant treated wood (FRTW) would be exempt from sprinklers.

Cost of the 2021 IBC Changes

National Multifamily Housing Council members and fire sprinkler contractors estimate that moving from NFPA 13R to NFPA 13 sprinkler systems would carry an incremental installed cost increase of approximately \$1.00/sq. ft. \$4.00/sq. ft. of overall building area on average across the US. This does not include final cost with markup to the building owner or adding a fire pump to the NFPA 13 system. Greater density and spacing of sprinklers, larger pipe diameter, sprinklers in concealed spaces, and especially, requirements for attic protection all contribute to the added cost. Costs associated with requirements for attic protection in NFPA 13 systems not only include the additional sprinklers and piping but also costs associated with increased hydraulic demand and water supply as well as necessary freeze protection in cold and even moderate climates. Price quotes and completed projects have shown that installing a NFPA 13 system can add approximately 50% to the cost compared to a NFPA 13R system.

Summary

The 2018 IBC addressed combustible attics in NFPA 13R protected residential buildings on pedestals by applying increased fire protection to attics over 55 feet in height. These changes were made to address fire department access concerns. The 2021 IBC tied the standpipe threshold of 30 feet to trigger NFPA 13 coverage in all residential buildings on pedestals and on grade four-stories and above. This means NFPA 13R is applicable in buildings up to three stories, measured from the grade plane.



NEW MEMBERS

Contractor

Max Moody

IMC Fire Protection LLC *Middleburg, Florida*

Lloyd Ernst

Bay Cities Pyrotector, Inc. *Emeryville, California*

Global Fire Protection Company

Downers Grove, Illinois

Joshua Bersine

Progressive Mechanical *Ferndale, Michigan*

SAM

Trina Campbell

Xerxes Corporation Fort Washington, Maryland

Professional

Michael Burke

Pensacola Bay Support Services Pensacola, Florida

Robbie Robers Protech

Columbia, Maryland

David Kish

Purdue University Glen Allen, Virginia

Kimberly Connor

Frederick County Government/Planning and Permitting/Office of Life Safety Frederick, Maryland

Craig Sloma

Fire and Life Safety America *Houston, Texas*

Daniel Slone

Stuart, Florida

Melvin Litle

MSL Design Service, LLC Merchantville, New Jersey

Lee Rebodos

Paragon Risk Engineering Brick, New Jersey

Jeremy Jones

State Systems, Inc. *Memphis, Tennessee*

Maria Queirolo

Fort Washington, Maryland

Subscriber

Chris Pasternak

Denver Building Department Denver, Colorado

Justin Leaf

Colorado State Plumbing Board Denver, Colorado

Tim Slaughenh

Fremont County Building Dept. Canon City, Colorado

William Jones

Beavercreek, Ohio

Paul Schneider

Lawrence Douglas County Fire Marshal *Lawrence, Kansas*

Chet Olson

Colorado State University Fort Collins, Colorado

Steve Boyle

Leadville Fire Dept. Leadville, Colorado

Chuck Altvater

Colorado Division of Fire Prevention and Control *Lakewood, Colorado*

Victor Meraz

Glenwood Springs Building Dept. Glenwood Springs, Colorado

Theresa Reifinger

Poudre Fire Authority Fort Collins, Colorado

Frank Rudecoff

Roaring Fork Fire Department *Carbondale, Colorado*

Greg Bak

Glenwood Springs Fire Department Glenwood Springs, Colorado

Roger Camper

Town of Silver Cliff Silver Cliff, Colorado

Kevin Shulman

City of Lafayette Building Safety Division *Lafayette, Colorado*

Samantha Everett

City of Loveland Building Division Loveland. Colorado

Robert Fries

Greeley Fire Department *Greeley, Colorado*

Morgan Matthew

Windsor Severeance Fire Rescue Windsor, Colorado

Todd Gilgren

Arvada Fire-Rescue Department *Arvada, Colorado*

Gary Yarno

Benton County Fire Services Rogers, Arkansas

Katie Quintana

Golden Fire Department Golden, Colorado

Brent Almon

No. Little Rock Fire Marshal's Office No. Little Rock, Arkansas

Kevin Fussell

Lawrence Douglas County Fire Medical Dept. *Lawrence, Kansas*

Susan Smith

City of Springfield Springfield, Missouri

Raymond Torres

New Mexico State Fire Marshal Office Sante Fe, New Mexico

Amanda Thibodeau

Louisiana Arson and Fire Prevention Assn Chauvin, Louisiana

Edward Kostowski

State of Connecticut Dept. of Education

Keith Watson

Marysville Fire Division Marysville, Ohio

Lewis Austin

Grandview Fire Dept. Grandview, Missouri

Kip Lamotte

New Brighton Fire Division New Brighton, Minnesota

Adam Lee

University of Maryland Boyds, Maryland

Adalmira Maldonado

Carlsbad Fire Department Carlsbad, California

Louie Marschik

OKC Fire Dept. Oklahoma City, Oklahoma

Dan Burke

Independence Fire Department Independence, Missouri

Jeffrey Hevey

Harris County ESD No. 48 *Katy, Texas*

Dan Burr

Inspections Cherokee, North Carolina

Gia Eley

City of Shakopee Shakopee, Minnesota

David Hauer

City of Savage New Prague, Minnesota

Jacob Martin

City of Mounds View Mounds View, Minnesota

David Skallet

St. Louis Park St. Louis Park, Minnesota

Brian Olson

FireMeasure, Inc. *Leavenworth, Kansas*

Andrew Brooks

Leavenworth, Fire Dept. Leavenworth, Kansas

Tim Linot

Olathe Fire Dept. *Olathe, Kansas*

John Droppelman

Kansas City Fire Dept. Kansas City, Kansas

George Turvill

Independence Fire Department *Annapolis, Maryland*

Bud Zapata

Annapolis Fire Dept. *Annapolis, Maryland*

NEW MEMBERS

continued from page 16

Sandra Friedrichsen

Windsor Severance Fire Rescue Windsor, Colorado

Tim Oates

Coppell Fire Department Coppell, Texas

Donald Marr

Town of East Lyme Niantic, Connecticut

Greg Johnston

Travis County Emergency Service District #1 Lago Vista, Texas

Pedro Corneio

Culver City Fire Dept. Inglewood, California

Nick Rogne

City of Brookfield Fire Dept. Brookfield, Wisconsin

George Martinez

City of Mercedes Mercedes, Texas

Tony Trevino

Mission Fire Department *Mission, Texas*

Cynthia Vargas

Univ. of Houston Houston, Texas

Scott Marion

Portland Fire Dept. Portland, Texas

Neil Fick

City of Warrenton Warrenton, Missouri

Greg Miller

Union Fire Protection District *Union, Missouri*

Larry Moore

Portage Fire Dept. *Portage, Michigan*

Bobby Perkins

State of Alaska FAI Fairbanks, Alaska

Jay Curless

Claycomo Fire Dept. *Claycomo, Missouri*

Eric Miles

Claycomo Fire Dept. *Claycomo, Missouri*

Sydney Kern

Ellington Fire Marshal's Office Ellington, Connecticut

William Walterscheid

St. Louis County Govt. *Clayton, Missouri*

Adam Hansel

High Ridge Fire Protection District St. Clair, Missouri

Greg Meyer

Maryland Heights Fire Protection District Maryland Heights, Missouri

Travis Sheltra

Palm Beach County Fire Rescue West Palm Beach, Florida

Donald Gregory

Ozark Fire Protection District Ozark, Missouri

William Penney

City of Des Pres St. Louis, Missouri

Denis Drozkowski

Maryland Heights FPD *Troy, Missouri*

Jim Simone

Bloomfield Center Fire Dept. Bloomfield, Connecticut

Marc Wacheter

Gladstone Fire Gladstone, Missouri

Brian Fineberg

Town of Wheatfield No. Tonawanda, New York

Anthony Riojas

Edinburg Fire Edinburg, Texas

Mitch Amatrudo

East Hartford Fire Dept. East Hartford, Connecticut

Michael Luna

McAllen Fire Dept. McAllen, Texas

Herbert Gross

Montgomery County Rockville, Maryland

Chris Buchanan

Dallas Fire Rescue Dallas, Texas

Jason Perez

Edinburg Fire Marshal's Office McAllen, Texas

Paul Ayres

Williamson county Fire Marshal's Office Georgetown, Texas

Salvador Erivez

City of Maricopa Casa Grande, Arizona

Sergio Diaz

City of Edinburg Edinburg, Texas

James Miller

Redding Fire Dept.

Northampton, Pennsylvania

Fiifi Baidoo

University of Maryland College Park, Maryland

Eric Johnson

University of Maryland College Park, Maryland

Ed Shirley

Enfield Fire District #1 Enfield, Connecticut

Roger Nelson

Bloomfield Center fire District Bloomfield. Connecticut

Tommy Jackson

University of Maryland *Bel Air, Maryland*

Liz Riel

Minneapolis Code Services Minneapolis, Minnesota

Richard Bloom

Levy County Dept. of Public Safety *Bronson, Florida*

Holly Haight

Town of Cortlandt Cortlandt Manor, New York

Daniel Peeler

Warehouse Point fire
District
East Windsor, Connecticut

Rob Ellison

Salt Lake City Fire Dept. Salt Lake City, Utah

Marshall Andrews

Salt Lake City Fire Dept. Salt Lake City, Utah

Cathy Moeck

Salt Lake City Fire Dept. Salt Lake City, Utah

Paul Carey

Salt Lake City Fire Dept. Salt Lake City, Utah

Kenney Christensen

Salt Lake City Fire Dept. Salt Lake City, Utah

Jose Vila

Salt Lake City Fire Dept. Salt Lake City, Utah

Emelii Gonzalez

Salt Lake City Fire Dept. Salt Lake City, Utah

Nicole Cover

Salt Lake City Fire Dept. Salt Lake City, Utah

Jamey Bumgarner

Tri-Lakes Monument Fire Protection District Monument, Colorado

Andy Rose

Colorado Springs Utilities Colorado Springs, Colorado

Robert Gerry

Cheyenne Mountain Airforce Station Colorado Springs, Colorado

Anthony Pinal

Culver City Fire Department Culver City, California

Martin Keefe

Maryland State fire Marshal Easton, Maryland

Don Buckley

Draper City Fire Dept. Draper, Utah

Earl Rollins

New Castle County Govt. Center New Castle County, Delaware

NEW MEMBERS

continued from page 17

David Rodriguez

Lake Cities Fire Department Corinth, Texas

Blair Bullard

Dallas Fire Rescue Dallas, Texas

Tony Martinez

Dallas Fire Rescue Dallas, Texas

Lola Page

Dallas fire Rescue, Dallas, Texas

Jose Salinas

McAllen Fire Dept. *McAllen, Texas*

Lance Ludtke

North Richland Hills Bedford, Texas

Kyle Turner

Univ. of Maryland College Park, Maryland

Stephen McDermott

Lawrence Township Construction Office Lawrence Township, New Jersey

Nicole Plunkett-Reid

University of Maryland *Bowie, Maryland*

Kevin Quinn

Nat'l Volunteer Council Wakefield, Rhode Island

Ed Richards

Enfield Fire District No. 1 Enfield, Connecticut

Cherie Wellmon

Park City Municipal Corp. Building Dept. Park City, Utah

Catey Mackenzie

City of Bend Bend, Oregon

David Ober

Waterbury, Fire Dept. Waterbury, Connecticut

Julian VandenBerghe

University of Maryland *Riverdale, Maryland*

Noah Chong

University of Maryland Laurel, Maryland **Tony Mobley**

Anchorage School District Anchorage, Alaska

Richard Schaffner

Austin Fire Department Austin, Texas

Benjamin Flick

Austin Fire Department Austin, Texas

Cody Bryant

Anchorage School District Anchorage, Alaska

Steven Colvin

Directorate of Public Works Ft. Wainwright, Alaska

Steven Wade

Directorate of Public Works Ft. Wainwright, Alaska

Dennis Kennedy

Directorate of Public Works Ft. Wainwright, Alaska

Edward Trent

Austin Fire Dept. Austin, Texas

Jason Buhler

Salt Lake City Fire Dept. Salt Lake City, Utah

Stuart Montague

Payson fire & Rescue Payson, Utah

Jim Berlin

Wasatch Academy Mt. Pleasant, Utah

Steve Spencer

Payson Fire & Rescue Payson, Utah

Thomas Pinder

Schertz Fire Department Schertz, Texas

Douglas Zordan

State of Connecticut Hartford, Connecticut

Monae Boyd

City of Daytona Beach Daytona Beach, Florida

Martin Botello

Austin Fire Department Austin, Texas

Mike West

Georgetown Fire Department *Georgetown, Texas*

Fawad Malik

University of Maryland Middle River, Maryland

Sheila Taridona

OEDM

Hartford, Connecticut

Tim Gilbertson

Duluth Fire Dept. Superior, Wisconsin

John Boden

City of Daytona Beach Daytona Beach, Florida

Muhammad Jalani

University of Maryland College Park, Maryland

Darrell Wright

Round Rock Fire Department Round Rock, Texas

Wei Shueh

University of Maryland Columbia, Maryland

Nathan Mendenhall

Guadalupe County Fire Marshal's Office San Antonio, Texas

Randy Koger

Riverdale Fire Dept. *Riverdale, Utah*

Bob Gobert

City of San Antonio San Antonio, Texas

Robert Ayoub

University of Maryland College Park, Maryland

Dhiraj Sonar

University of Maryland Hyattsville, Maryland

Emily James

University of Maryland Port Deposit, Maryland

Brian Noe

State of Wisconsin DSPS Oshkosh, Wisconsin

Michael Newell

Middle Tennessee State University *Richmond, Texas*

Ken Gilliam

La Crosse Fire Dept. La Crosse, Wisconsin



A Force to be Reckoned With



by Vickie Pritchett, Executive Officer

o say that I am disappointed to have to re-write my article for this issue of NFSM is an understatement. As we all work to deal with the COVID-19 pandemic, we are reminded that our association is needed more than ever. In the midst of the beginning cycle of the coronavirus, your NFSA team sprang into action in Arizona when a bill was filed that would prohibit fire sprinklers in bars and nightclubs of 300 occupancy and greater. Within hours, we had brought together a team that assessed the situation and within days we had hired a lobbyist and secured an advocate to provide testimony. Rob Feeney, a Common Voices advocate and a survivor of the Station nightclub fire, agreed to fly cross-country to testif. Before he boarded his flight, we learned that they would not allow testimony, so we pulled the flight. However, he did send the following testimony to every member of the Senate committee that was hearing the bill.

As you read Rob's words... I hope you realize that the work you do is making a difference. Rob is an advocate today because of associations like ours and Common Voices. We have created a synergy and collaborative partnership that is a force to be reckoned with. So, during these very unsettled times, I share with you a story of hope.

Working together, we will continue to educate policymakers across our country. Our cause is one to believe in, and I hope you all realize this as we navigate through these uncharted waters.

In conclusion, please mark your calendars for Vegas in 2021. Phoenix may have been cancelled for 2020, but we will make up for lost time next year when we gather for *#fastestwater* on the strip! Yes, that's right, we will be at the Cosmopolitan and it will be awesome!

Thank you all for your support of NFSA, our team and the work that we do on your behalf.

Until next time, stay safe,

Members of the Arizona Senate,

I am writing in response to the recent bill proposal by Rep. Travis Grantham *calling for a ban on municipalities* from enforcing fire sprinkler requirements in large occupancy restaurants and nightclubs (HB 2313). I understand that people testifying typically have 3 minutes to speak. Ironically, in 3 minutes about 96 people had died in the Station Nightclub fire, including my fiancé and two of our friends. I am a survivor of the Station fire. If the Station fire had started when you began reading this letter, by now the fire would be climbing the walls to the ceiling, causing lights to explode and the power to go out. People were piling up at the main entrance, which for many, was the only exit still somewhat visible. The fire was now rolling over our heads, depleting oxygen was being replaced by thick, black smoke and the heat was reaching the point where our skin was beginning to melt. People were literally burning around me. The floor was covered in bodies as anyone who was still standing, quickly collapsed. Few people beyond this point were able to get out. The fire spread quick and the death toll climbed almost as fast. The ceiling was starting to fall in. My fiancé was now unresponsive on the floor, just out of my reach as part of the ceiling struck me in the head, leaving me with only the ability to move my arms and continued on page 20

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continued from page 19

pull myself to her. I laid there listening to the fire alarm become silent, the screams fade to memories and I prayed each breath I took was my last, in hopes the pain I was enduring of being burned alive would cease. The silence broke by the crackling of burning wood. I began to crawl and found a hole in a wall just inside the front door. This led me to the parking lot, where I watched fire crews attempting rescues before being pulled away to start fire suppression and later, recovery efforts. As I was being led to an ambulance, about 5 ½ - 6 minutes after the fire started, I watched the roof collapse into the engulfed shell of the nightclub. Twelve days later, I awoke from an induced coma, on the day of my fiance's funeral.

My story is not unique, unfortunately. There are many people, too many, who can testify on their surviving a fire and losing loved ones in a fire. The fires we would talk about were preventable. Had there been a sprinkler system in the Station fire, conversations like this may not be happening. Not until the next tragic fire in a bar, nightclub or public assembly venue happens. I promise it will happen, just as it did before The Station fire. The Cocoanut Grove – 492 deaths, Beverly Hills Supper Club – 165 deaths, Happy Land Social Club – 87 deaths, Rhythm Club – 207 deaths, Upstairs Lounge – 32 deaths, Gulliver's Nightclub – 24 deaths. These are just some of the tragic fires that took place before The Station fire. None of them had sprinklers. None of them should have happened, but just like in Rhode Island, people didn't learn from history. Similar fires have continued to happen around the world since The Station, from Brazil to Russia and China to Oakland, CA. None of them had sprinklers. The fires that usually don't make the news are the ones that sprinklers systems put out. Including right here in Phoenix as recent as this past month. You have an obligation to the citizens of Arizona and the people who visit this state to provide the best means of safety possible. It's expected of you. The 100 victims and over 200 injured survivors of The Station fire expected safety, but we were failed by the city officials and the owners. Don't be another failure. Don't make the news because of a preventable fire in one of these establishments devastates one of your communities because you didn't learn from the history before you. Furthermore, many of us fought for years for the Federal Fire Sprinkler Tax Incentive, Section 179 (P.L. 115-97) to be used by business owners. A responsible lawmaker would be educating the business owners on this bill and not propose a new bill that could ultimately lead to multiple deaths and tens of millions of dollars in medical and court costs afterward. Please vote this down.

Respectfully,

Robert P. Feeney Burn Survivor East Wareham, MA

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

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

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



CommonVoices1

fireadvocates.org

Fire Sprinklers Save Lives



Did you see us on Fox & Friends and Good Moring America?











ROCHESTER, MN

Fire Sprinkler Save at Rochester, Minnesota Strip Mall Nail Salon

Thank you to Rochester Fire Department Acting Fire Marshal Jason Whitney for sending us this unreported sprinkler save!





Rechargeable nail buffing unit had a failure within a compartment of desk. Fire spread to desk and contents. Sprinkler head directly above area of origin activated and did not allow fire to extend beyond desk.

Nuts and Bolts:

Structure:	Multi-tenant strip mall
System:	Full wet
Heads Activted:	1 (one)
Installation Contractor:	Summit Fire Protection

ST. CLOUD, FL

Family with Special Needs Children Saved by Residential Fire Sprinkler System

Thank you to Fire Marshal Richard Tonks of the City of St. Cloud, Florida for sending in this sprinkler save, complete with a great backstory!



On February 8th, at 1:36 a.m., the St. Cloud Fire Department was dispatched to a residential structure fire with reports of occupants trapped inside the home. Members of the fire department were familiar with the homeowners and realized the gravity of the situation. The family had adopted children with debilitating illnesses, several who are bedridden and on ventilators, unable to evacuate on their own.



In 2008, the City's previous Fire Marshal, David Ennis, realized the life-safety concerns for the family and convinced the owner to install a residential sprinkler system. The sprinkler permit was approved on February 12, 2008, almost 12 years to the day of continued from page 22

the fire. NFSA member Wayne Automatic Fire Sprinklers, Inc. donated the parts and installation for the project. The home is also equipped with fire alarms, that operated early in the fire, alerting the family of the danger.

When crews arrived, they found heavy fire at the rear of the home with



flames quickly spreading through the attic. When they reached the second floor, where seven occupants were found, crews observed that although there was a raging fire a few feet above their heads in the attic, the fire sprinklers that had activating were keeping the temperature in the room down. The fire department reported that the fire sprinkler system bought firefighters time for safe evacuation of the occupants and allowed for a survivable environment for both occupants and firefighters.



Marshal Tonks inspected the home after the fire and noted that seven sprinklers activated on the second floor, and two on the first. He credited the first-floor sprinklers with keeping the fire from entering through the downstairs windows. "Had the sprinklers not been in place, the fire would have spread through the house rapidly, killing all of the bedridden children and two nurses on the second floor," said Tonks. "The sprinklers on the second floor most likely activated due to the heat from the attic," he went on to say. "These sprinklers protected the means of egress. I strongly believe that this fire had several opportunities to enter the structure killing everyone inside. The sprinkler system kept the fire outside allowing our firefighters to get everyone out."

COPPELL, TX

Sprinkler Save at Coppell, Texas Daycare

Thank you to Tim Oates, Deputy Chief of the Coppell, Texas Fire Department for sending us this great save!

On January 20th, at 8:45pm, Coppell Fire Department was



dispatched on an automatic fire alarm to a daycare facility.

CFD units arrived approximately four minutes later with very light smoke inside the structure. Crews began a search at the front door, immediately hearing the activated fire sprinkler. Firefighters saw remnants of a ceiling mounted exhaust fan burning. They 'pulled the ceiling', exposing burned roof members and the activated automatic fire sprinkler. The single fire sprinkler extinguished the fire.



Nuts and Bolts:

Approximately \$7,000 damage (not including water restoration) Potential loss if building did not have protection – approx. \$650,000 (structure and contents, not including loss revenue)

MOORESVILLE, NC

Hotel Kitchen Fire Extinguished by Fire Sprinkler System

Thank you to Mooresville, North Carolina Fire Marshal Geoff Wolard for submitting this sprinkler save!

Occupants and \$11 million in property protected Mooresville, NC-Significant damage was averted on March 1st, when a grease fire ignited in the kitchen of Hilton Garden Inn in Mooresville, North Carolina. Although the hood suppression system activated, the fire spread to nearby cardboard boxes. The fire was then suc-

continued on page 24

Fire Sprinklers in Action

continued from page 25



cessfully extinguished by the building's fire sprinkler system when three sprinklers activated. According to Assistant Fire Marshal Jeff Sickles, Mooresville Fire-Rescue was dispatched to an automatic fire alarm shortly after 5:30 p.m. that afternoon. A grease fire in the kitchen caused the hood suppression system to activate but was unable to keep the fire from spreading to nearby cardboard boxes. Thankfully, when the hotel was built in 2007, building codes in effect at the time required the installation of a fire sprinkler system. In this case, three sprinklers activated and extinguished the fire before firefighters arrived keeping the hotel's occupants and the \$11 million building protected. Damage was limited to a small area of the kitchen and water from the sprinkler system.

According to the US Fire Administration, each year, there are an estimated 3,900 hotel and motel fires that cause 15 deaths, 100 injuries, and \$100 million in property losses. Fire officials recommend when traveling that you select only hotels and motels with fire sprinklers installed for your safety. Use the Hotel-Motel National Master List to find hotels and motels with both smoke alarms and fire sprinklers at https://apps.usfa.fema.gov/hotel/#searchlist

Nuts and Bolts:

Value of Building:	\$11,363,090
Value of contents:	unknown
Value saved:	\$11,360,000 (estimated)

KATY, TX

Single Sprinkler Saves Katy, Texas **Apartment Complex**

Thank you to Fire Chief Jeffrey S. Hevey of the Harris County, Texas ESD No. 48 for submitting this sprinkler save!

On February 21st, Tower 4 ("TW4") was dispatched to a fire alarm to a Katy, Texas apartment complex. TW4 went en route emergency traffic from Station 4 without delay. TW4 was notified while en route that there was smoke coming from an apartment unit. TW4 arrived on location without incident. TW4 arrived on location to find a large, three-story apartment building with nothing showing; investigative mode; established Colonial Parkway Command. Water Gong and Fire Alarm audible upon arrival. Upon exiting apparatus, a bystander said that there was

smoke coming from the third floor Alpha Bravo occupancy. TW4 relayed information to crew and grabbed a pump can and irons to go to the Alpha Bravo occupancy. TW4 requested chauffeur to find the riser room and attempt to complete 360. TW4 found a locked door and forced entry into the apartment. TW4 made entry to find smoke banked down to the floor and a dog right by the front door. The dog was removed from the apartment. TW4 did a primary search and ventilation. Upon investigation, the fire appeared to be confined to the stove and surrounding areas, but was suppressed and extinguished by a single sprinkler.

"The one sprinkler controlled and extinguished the fire, saving building occupants, the pet dog and an expensive building." Fire Chief Hevey

Nuts and Bolts:

Type of system:	Wet Pipe
Number of sprinklers activated:	one
Value of building	\$1,500,000.00
Value of contents	\$25,000.00
Value saved	\$1,500,000.00 (est)

McKINNEY, TX

Sprinklers Snuff Kitchen Fire Sparked by Fried Chicken Grease in McKinney **Apartment**

Thank you to Merit Ossian, McKinney Fire Dept. Public Information Officer for alerting us to this great sprinkler save!

On March 3rd, the McKinney Fire Department responded to a report of a structure fire in the early afternoon. A resident was frying chicken when splashing grease ignited. The two fire sprinklers in the kitchen were activated and quickly extinguished the flames. No one was injured and damage was limited to the area around the stove.



Fire Sprinklers in Action

MEMBER-TO-MEMBER:

By Dale Chapman, V.P. Fire Protection Sales, Pace Corp.

Sprinkler Save at Assisted Living Facility and Members That Go Above and Beyond

FROM NFSA PRESIDENT SHANE RAY:

This is the best member-reporting of a sprinkler save that has been shared with me since being President of NFSA, and the greatest example of fulfilling the NFSA mission.

This is a great example of what happens when we go above and beyond to make the fire sprinkler concept acceptable after a fire sprinkler save. Often, If we fail to quickly restore the "normal" after a save, the inconvenience the building owner may experience often outweighs the absence of devastation that would have occurred if a properly functioning sprinkler system was not in place.

Thank you goes to Dale M. Chapman, V.P Fire Protection Sales for Pace Corporation in Appleton, Wisconsin for taking the time to write to fellow member David Rosso of Reliable Automatic Sprinkler Co. to tell him of the outstanding customer service a Reliable team delivered to one of Dale's customers.

I am sure we have a lot of other members who have similar stories of above and beyond customer service, please share them with me so I can share them with all our members. I know there will be some fire officials who read this story and see the commitment of our industry. Perhaps they can assist with some firewatch as the process unfolds. Read on and remember this great example of our *Buy NFSA* initiative and one fantastic sprinkler save!

FOLLOWING ARE EXCERPTS OF DALE'S EMAIL:

Good morning David,

I just wanted to make you aware of an absolutely amazing thing your team at Reliable did for us and one of our customers this weekend. On Friday night I was called around 7:00 p.m. by our Service Manager regarding a fire that had happened in a Senior Living facility located in Allouez, Wisconsin. The fire was controlled by one sprinkler head (a Reliable head)!

Several factors led to the fact that Pace was not able to put the system back into service without Reliable's help, and Dale continues his email:

The local fire department made the facility evacuate the elderly residents, placing a huge burden on the owner. Again, this was all happening around 7:00 p.m. Friday night. I told our Service Manager that it was probably going to be impossible to get anything going on this project until first thing Monday morning.

So, at around 8:30 Friday night I tried to contact David Fisher, just hoping that he might be able to get back a hold of me. I left David a message of what was all happing. Within five minutes David was calling me back!!

Dale let David know what was needed, and the whole Reliable team came through in a big way! Read the rest of Dale's story: David was able to get a hold of Jacqui from your office, at her home on Saturday morning. Jacqui actually took her Saturday and went into the office to verify whether or not you had all the materials we needed! Which you did, at the Chicago office. Jacqui also contacted Jeff "Tugboat" Lukacs, one of your drivers, to see if he would be available to deliver everything up to us here in Appleton. Jeff gave up his Sunday to deliver the materials here to our shop by 8:00 a.m. Sunday morning... meaning he had to be at the Chicago office probably around 2:30 a.m. or so on Sunday to get loaded up and head out to our shop in order to be here by 8:00 a.m.!!!!

I just want to pass along our MOST SINCERE thank you to David Fisher, Jacqui, and Jeff "Tugboat" Lukacs, from the Reliable team for going completely out of their way for us and our customer this weekend! I thought you should know of how extraordinary of an effort this was by each and everyone one of these individuals!

Thank you to again to David, Jacqui, and Jeff for everything you did for us this weekend!!!! Because of your efforts, we were able to get our customer back in service by 8:00 p.m. last night. They are moving the residents back into the facility this morning! Thank you! Thank you! Thank you!!!!

-Dale M. Chapman



Bishops Court, the site of the fire



The Pace Team that worked at Bishops Court to get the facility back into service. Starting from left to right: Troy Pflugradt – Service Manager, Jason Rice – Sprinkler Fitter, Mike Buchholz – Sprinkler Fitter, Steve Sauter – Sprinkler Fitter

The Value of Training

by Vince Powers, NFSA's ITM Specialist





Can a monetary value be placed on training? Probably, but at what value? There is a different value for every company, but training is certainly one of the most valuable assets in any business. Many companies like to boast that they have X number years of experience, but does that mean they are skilled at their tasks? Ever hear the quote "skilled labor isn't cheap and cheap labor isn't skilled"? Great words

to live by. Many companies out there, not only in the sprinkler industry, want to charge top dollar but do not have top technicians to accompany that hourly rate. Most companies cannot survive on top paid techs only, they need to have a mixture of skill levels to sustain the average hourly costs incurred. This doesn't mean they should not have inexperienced techs performing specific tasks. Take inspections and testing of fire sprinkler systems as an example. A service provider could have a technician that knows all there is to know and pay that tech top dollar and at the same time could also have a relatively new technician that is only trained on wet systems. This less experienced technician would certainly not make the same hourly wage as the more experienced technician, however the service provider would charge the same hourly rate for both technicians. NFPA 25, The Standard for Inspections, Testing, and Maintenance of Water-Based Fire Protection Systems, allows technicians of differing skill levels as long as the person conducting ITM on a fire protection system is qualified in the tasks they are performing. The definition of qualified in NFPA 25 is:

3.3.34 Qualified. A competent and capable person or company that has met the requirements and training for a give field acceptable to the AHJ. [96,2014]

NFPA does not require a certification or license to perform any tasks required by NFPA 25. Any of these requirements would come from laws or ordinances adopted by the local Authority Having Jurisdiction (AHJ). NFPA 1 (The Fire Code) and the IFC (International Fire Code) say that the AHJ has a right to ask for proof that someone is qualified at the task that they are performing, although this is seldom verified. Many states have adopted a license requirement either for the company or as an individual. For example, in state A, to be able to conduct ITM of a fire protection system only one person on company staff must have a NICET II or equivalent in water-based inspections and testing to meet the requirements of the state, while in state B each individual technician must have a NICET II or equivalent. As you can see, these are two very different requirements. If a service provider was conducting ITM in both states would they have noncertified personnel conduct these tasks in state A and keep their certified labor for state B? To be competitive in both markets, the answer is likely yes. Does this also mean that state A building owners are getting a lesser service? Maybe not, again, based on the requirements of NFPA 25, all techs conducting ITM must be trained for a specific field. With that being said, where individual license requirements do not exist, it is possible that the labor could be less skilled to a degree. Can your company provide proof that your tech has met the requirements of "qualified"? Recall the quote "skilled labor is not cheap and cheap labor is not skilled" and understand that there are differing levels of skill. This is how all service industries operate and there is a need to train the less skilled employees. If employees are not trained, qualified, or certified, you many find yourself in court without a solid defense. There is a risk is in sending non-qualified (trained) employees to conduct an ITM that they may not have been properly trained for but have seen done, possibly even helped conduct, and assume that they can complete it properly. When these less experienced technicians are sent to complete the task it may be found that they were not qualified for the task and the result is a fire pump that is burned up or a flooded building. This doesn't mean that you will not find yourself in court with skilled labor, but the chances are lessened.

The question is how do we properly train techs and run a business? One way is through on-the-job training to gain experience. This is a good method but could take some time. Another question is how do we gauge on-the-job training? This is always a juggling act, but it is a necessary juggling act. On-the-job training can take much longer than other methods of training. Certifications are a way to determine qualifications, but certified doesn't always mean qualified. Technology is making training an easier accomplishment. Many companies are developing different ways to provide training to help combat the increasing demand for skilled labor to meet the increasing volume of work.

NFSA has a wide variety of online training, including ITM, that includes an optional "hands-on" portion. A training like this can compact years of on-the-job with in-class training into a few weeks.

Visit www.nfsa.org/training/ for more information.

Running a business is expensive. However, training of personnel is a necessary expense Training personnel is vital in any successful business. If you wait until it's too late you may find that what you have saved in training expenses could cost much more in lawyer fees.

900 Industries, Inc.

16 Deborah Drive Sutton, Massachusetts Tel: 508.865.9800

Website:

www.900industries.com

The Academy of Fire Sprinkler Technology

301 N. Neil Street 4th Flr Champaign, Illinois 61820 Tel: 217.60.-0325

Email: cecil@sprinkleracademy.com

Website:

www.sprinkleracademy.com

Accu-Fire Fabrication, Inc.

8 Progress Drive Morrisville, Pennsylvania 19067

Tel: 215.428.2400 Toll-Free: 800.641.0005 FAX: 215.428.0355 Email: AccuFire@aol.com

Wehsite:

www.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:

Deardra 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

Email: ejensen@aegistechnologiesinc.com

www.aegistechnologiesinc.com

Founded:

2007

Primary Products/Services:

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

Market Area:

No. 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 speciality 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

Email: jmchugh@testandrain.com

Website:

www.agfmanufacturing.com.

Founded:

1986

Primary Products/Services:

Fire Protection Valves and Accessories

Market Area:

International

Management:

Jim McHuah George McHugh Rich Pancoast

Sales Contact:

Jason Uder, National Sales Email: juder@testandrain.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™, COLLEC-TANDRAIN®, 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: roe.dr@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 Michael Chambon, Director, Business Development

Sales Contact:

David Roe, Business Unit Mgr, Fire Protection

Tel: 775.552.1430 Email: roe.dr@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 Email: sales@262apex.com

Website:

www.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, MN, FL. NE, IA, ND, SD

Hours of Operation:

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

Management:

Brad Clemmons, President Vince Rodriquez, 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, Thread Sealants, Hangers & Fasteners, Pipe Fittings

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, pipe hangers & seismic sway bracing, valves, thread sealants, grooved pipe fittings and a great selection of fire sprinkler specialties.

Asurio, Inc.

8181 Arista Place Suite 100 Broomfield, Colorado 80209 Tel: 877.444.1488 Email: info@asurio.com

Website:

www.asurio.com

Founded:

2007

Primary Products/Services:

Mobile Inspection & Data Collection System

Market Area:

Global

Hours of Operation:

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

Management:

Top Myers, President

Kelly Murphy, Business Development Manager

Sales Contact:

Kelly Murphy, Business Development Manager Email: kmurphy@asurio.com

Company Profile:

BirdDog from USA-based Asurio, Inc. is a cloudbased, mobile inspection & data collection system. One of the most powerful and versatile mobile inspection systems on the market, BirdDog is easily configurable for multiple industries, regions & inspection and data collection needs. The BirdDog Mobile 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. BirdDog operates on the top three standard technology platforms: Apple, Android and Microsoft. The BirdDog Mobile Inspection System results in streamlined, more accurate inspections, improved compliance, minimized risk, savings in time & money, improved productivity and more.

BlazeMaster® Fire Protection Systems— Lubrizol

9911 Brecksville Road Brecksville, Ohio 44141 Tel: 216 447 5330

Email: blazemaster@lubrizol.com

Website:

www.BlazeMaster.com

Founded:

1984

Primary Products/Services:

BlazeMaster® Fire Protection Systems

Management:

Lainey Liotta, Fire Protection Market Mgr., North America

Connect with us at BlazeMaster.com/blog

Company Profile:

BlazeMaster® Fire Protection Systems are approved for light hazard residential and

commercial applications, as defined by NFPA 13, 13R and 13D. BlazeMaster® Pipe and Fittings are lightweight, making installations easier and faster as pipe can be cut on-site, saving money on labor and material costs. Their resistance to corrosion means less maintenance, better hydraulic performance and a lower lifecycle cost.

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

Fax: 770.495.9331

tel:770.495.9331>

Website: www.buildingreports.com

Founded:

1999

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 Fax: 770.495.9331

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 10 billion square feet of floor space in over 630,000 buildings, and over 280 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

Email: julie.childress@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:

Jim Charmley, CEO Sushmit Patel, CFO Jeff Strobach, VP Sales

Sales Contact:

Dave Weinrich, General Sales Manager

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 saw 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.

For more information, go to www.bullmoosetube. com.

C-Aire Compressors

380 West 1st Street

Dresser, Wisconsin 54009-9042

Tel: 651.462.3440

Website: www.c-aireinc.com

Chicago Backflow, Inc

12607 S. Laramie Avenue Alsip, Illinois 60803

Tel: 708.389.5600 Fax: 708.389.5632

Email: dsmith@backflow.com

Website:

www.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 Email: contact@backflow.com

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.

CLARKE

Clarke Fire Protection Products, Inc.

100 Progress Place Cincinnati, Ohio 45246 Tel: 513.475.FIRE

Email: mmathes@clarkefire.com

Website:

www.clarkefire.com

Founded: 1964

Primary Products/Services:

Diesel Engine Fire Pump Drivers

Market Area:

Global

Hours of Operation:

24/7

Management:

Dane Petrie - President and CEO Justin Strousse - Director of Global Sales Ken Wauligman - Engineering Manager Brandon Cushman - Production Manager

Sales Contact:

Scott Noyes, US/Canada Regional Sales Manager

Email: snoyes@clarkefire.com

Company Profile:

Clarke Fire Protection Products is a global supplier of UL/FM diesel fire pump drivers, meeting NFPA20 and country-code requirements. Products include the pressure-limiting driver (PLD) and Tier 3 EPA-certified engines. Manufacturing locations are Cincinnati, Ohio and Coatbridge, Scotland.



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

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:

Phoenix, Arizona

1450 E Buckeye Road Phoenix, AZ 85034 Tel: 602.256.0050 Fax: 602.256.7117

Hayward, California

2407 Industrial Parkway West Hayward, California 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, California 95815 Tel: 916.565.0466 Fax: 916.565.1852

Fresno, California

4710 E. Commerce Ave. Fresno, California 93725 Tel: 559.441.7171 Fax: 559.441.7175

La Habra, California

751 E. Lambert Rd. La Habra, California 90631 Tel: 562.690.8800 FAX: 562.690.1419

Lodi, California

1625 S. Stockton St. Lodi, California 95240 Tel: 209.334.9768 Fax: 209.334.9773

Fontana, California

15535 Arrow Route Fontana, California 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

1430 Massaro Blvd. Tampa, Florida 3361 Tel: 813.620.9058 Fax: 813.626.6912

Orlando, Florida

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

Palm Beach, Florida

1751 Avenue L Riviera Beach, Florida 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. West Jacksonville, Florida 32256 Tel: 904.260.4705 Fax: 904.260.4644

Atlanta, Georgia

2157 Tucker Industrial Road Tucker, Georgia 30084 Tel: 770.414.1212 Fax: 770.414.1883

Bedford Park, Illinois

5144 West 73rd St. Bedford Park, Illinois 60638 Tel: 708.728.9793 FAX: 708.728.9826

Indianapolis, Indiana

8615 East 33rd St. Indianapolis, Indiana 46226 Tel: 317.898.4879 Fax: 317.898.4868

Columbia, Maryland

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

Glen Burnie1, 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

Cleveland, North Carolina

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

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

60 Cohoes Ave. Ste 100 Albany, 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. 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, North Carolina 28027 Tel: 704.784.4700 Fax: 704.789.9288

Las Vegas, Nevada

4035 W. Oquendo Rd. Las Vegas, Nevada 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, 1Rhode Island 1195-B Broad St. Providence, 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 OKC, OK 73128 Tel: 405.506.6206 Fax: 405.495.2016

Salt Lake City, Utah

275 West 2855 South Salt Lake City, UT 84115 Tel: 385.419.3950 Fax: 801.467.4099

Springfield, VA

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

Renton, Washington

875 SW 7th St. Renton, WA 98057 Tel: 800-270-2235 Fax: 425.228.0162

Kent, Washington

18802 72nd Ave S Kent. WA 98732 Tel: 253.518.2560 Fax: 425.241.0362



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 Email: info@croker.com

Website:

www.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 main warehouse is in Elmsford, New York. We maintain inventory in Dallas, Texas; Detroit, Michigan; Miami, Florida; Cleveland and Cincinnati, 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, Inspection and Testing Equipment, and much more. Because our equipment is critical for the protection of 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 Ohio

4690P Interstate Drive Cincinnati, Ohio 45246 Tel: 513.870.0517 Fax: 513.870.0363

Bob Orth, Regional Sales Manager

Croker Florida

4038 NE 5th Terrace Unit C Oakland Park, Florida 33334 Tel: 954.314-8973

Fax: 954.314.8974

Leon Benlolo, Regional Sales Manager 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

Email: info@decoshield.com

Website:

www.decoshield.com

Primary Products/Services:

Decorative cover for fire sprinkler systems

Management:

Linda Camm, President

Sales Contact:

Linda Camm, President Email: linda@decoshield.com

W.S. Darley & Company

325 Spring Lake Drive Itasca, Illinois 60143 Tel: 630.735.3538

Website:

www.darley.com

Founded:

1908

Primary Products/Services:

Fire and Emergency Services

Market Area:

International

Hours of Operation:

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

Management:

Paul Darley, CEO

Jeremy Taylor, Chief Engineer Kevin Sofen, Business Development Sales Contact: Kevin Sofen

Email: kevinsofen@darley.com

Company Profile:

The Darley StarterPaq™ provides a one stop solution for your NFPA 13D fire sprinkler pump needs. The StarterPaq™ makes your life easier by coming fully assembled, meets all your demands and delivers within 24 hours. Darley is a family owned company involved with the fire industry since 1908. We understand the fire industry and strive to provide the highest level of customer satisfaction. We are dedicated to excellence and offer a diverse line of quality products and services through progressive design, manufacturing and distribution. Darley can design a custom NFPA 13D or 13R around your needs. Darley also specializes in the Hydrant Booster, a decentralized pump station for rural fire departments.

DEWALT

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

Website:

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

Email: pedro.valdez@edcos.com

Website:

www.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

Email: baroo coacoc

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, Novec1230. We also cover mechanical contractors.

Give us an opportunity. Se Habla Español.

Engineered Corrosion Solutions

11336 Lackland Road St. Louis, Missouri 63146

Tel: 314.432.1377

email: sales@ecscorrosion.com

Website:

http://ecscorrosion.com

Founded:

2003

Primary Products/Services:

Corrosion management, nitrogen generators, air vents, corrosion monitoring

Market Area:

Worldwide

Management:

Jeff Kochelek, CEO

Sales Contact:

Andrew Loeffelman, VP-Sales Email: aloeffelman@ecscorrosion.com

Company Profile:

The de facto standard in fire sprinkler corrosion control. Engineered Corrosion Solutions (ECS) is a corrosion engineering firm specializing in helping clients manage risk associated with leaking fire sprinkler systems. We provide scientifically proven nitrogen inerting technology to stop corrosion and extend the useful life of wet, dry, and preaction fire sprinkler systems. Our solutions prevent leaks before they occur.

ECS sells direct to fire sprinkler contractors and offers a suite of corrosion management products for water-based fire sprinkler systems that include:

- ECS Protector Nitrogen Generation System
- ECS In-line Corrosion Detector
- ECS Protector Nitrogen Inerting Vent
- ECS Ejector Automatic Air Vent

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. Ferguson Fire & Fabrication is a complete source for all fire protection needs

Firepro365

20 Meridan Road Ste 2 Eatontown, New Jersey 07724-2270 Tel: 752.704.1775

Website:

www.firepro365.com

Fire Tech Productions, Inc. 7986 B Clyo Road

Centerville, Ohio 45459 Tel: 937.434.3473

Website:

www.firetech.com

Contact:

Donna Pierron

Providing Training to the Fire Protection Industry since 1987!

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.

FERGUSON FIRE & FABRICATION

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.

FormLink Systems

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

Fax: 317.735.3342

Email: sales@formlinksystems.com

Website:

www.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, Wisconsin, Minnesota, North & South Dakota

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:

Scott Sandfox. President Daniel Sandfox, Secretary of Corporation Dan Rossol, Operations Mgr. Sales Contact: Danielle Sandfox, Sales Mgr.

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.



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!

Globe Fire Sprinkler Corporation

4077 Air Park Drive Standish, Michigan 48658Tel: 989.846.4583 Fax: 989.846.9231

Website:

www.globesprinkler.com

Founded:

1914

Primary Products/Services:

Manufacturer of fire protection valves, sprinklers, and system accessories

Market Area:

Worldwide

Hours of Operation:

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

Globe Fire Sprinkler Corporation is a ISO-9001 certified manufacturer of fire protection valves, sprinklers, and accessories. Globe offers a complete range of USA-produced products for use in residential, commercial, storage, and special hazards applications.

Globe has rapidly developed game-changing new products as the world market demands, including the Universal Manifold/Universal Manifold Check (UM/UMC), the RCW Dry/ Deluge/Preaction Valve, and a revolutionary attic protection scheme that reduces hydraulic demand by up to 70%.

Our 100% USA factory-tested products meet the stringent guidelines of various approval authorities, such as Underwriters Laboratories (UL), Factory Mutual (FM), Conformité Européene (CE), and the Loss Prevention Certification Board (LPCB

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 Fax: 814.838.7339 Email: paulc@harrinc.com

Website:

www.hydrantstorz.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:

Dave Harrington, President

Sales Contact:

Dave Harrington, President Email: daveh@harrinc.com

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

Hilti, Inc.

7250 Dallas Parkway Ste 1000 Plano, Texas 75024 Tel: 800.879.8000

Website: www.hilti.com



The Hose Monster Company

1330 Ensell Rd Lake Zurich, II 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.hrssystems.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.

For further information, please e-mail hass@ hrssystems.com.

Huguenot Laboratories, Inc

101 Riverdale Road Port Jervis, New York 12771 Toll Free: 800.228.3793 Fax: 845.858.8821

Founded:

1998

Primary Products/Services:

Fire Protection Corrosion Solutions

Market Area:

North America, South America, New Zealand, Australia

Hours of Operation:

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

Management:

Tim O'Leary, President

Sales Contact:

Tim O'Leary, President

Company Profile:

Huguenot Laboratories, Inc. is the leader in providing Microbiological Influenced Corrosion analysis testing to identify and provide mitigation options to address corrosion problems in wet and dry fire sprinkler systems. Huguenot Laboratories has a full suite of portable and permanent Chemical Injection Systems, Wet System Air Release Systems, Corrosion Monitoring Stations, test kits and nitrogen generation equipment to address all of your fire sprinkler corrosion management requirements. Huguenot Laboratories patent pending dry gas inhibitor technology is the industry's first new technology for dry and pre-action systems that allows for a complete corrosion management solution for the treatment of the air source. This new technology out-performs nitrogen and is a fraction of the cost of nitrogen equipment. Please call us at 800.228.3793.



Hydratec, Inc.

64 Haverhill Road Windham, New Hampshire 03087 Tel: 603.434.0502

Fax: 603.434.1348 Email: al@hydracad.com

Website:

www.hydratecinc.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 Bill McKenna, Design Manager

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 Email: al@jgius.com

Website:

www.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 InterlockTM concealment systems for the purpose of concealing Fire Sprinkler Systems, Piping, Plumbing, HVAC, Ductwork and Cable. The Soffi-Steel® and Interlock™ Concealment Systems are made in the USA, produced from A60/G90 galvannealed 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:

Rekha Agrawal, G.M.,

Sales Contact:

Michael Mottice, Director of Sales, Americas

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

Kennedy Valve

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

Email: barry.obrien@kennedyvalve.com

Website:

www.kennedyvalve.com

Founded:

1877

Primary Products/Services:

UL FM Gate Valves. Grooved Check Valves. Wafer BFVs, 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.

Knox Company

1601 W Deer Valley Rd Phoenix, Arizona 85027-2112

Tel: 623, 687, 2300 Fax: 623.687.2283 Contact: Cynthia Jones

Website:

http://knoxbox.com

Master Control Systems, Inc.

PO Box 276

Lake Bluff, Illinois 60044

Tel: 847.295.1010 Fax: 847.295.0704

Email: sales@mastercontrols.com

Website

www.mastercontrols.com

Founded:

1965

Primary Products/Services:

Fire Pump Controllers

Management:

William Stelter, President Lisa Villa, Sales Support Brian Urbanik, Technical Support

Company Profile:

Master Control Systems, Inc. manufactures the world's first UL/FM Variable Speed Electric Fire Pump Controller. In addition, we manufacture all types of NFPA 20, UL/FM approved, fire pump controllers. We offer electric controllers from 5-400 hp at 200-600 vac. We also offer diesel fire pump controllers and accessory items. Five-year warranties are standard on EC-series controllers or DEC-series diesel controllers.



The Metraflex Company

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

Email: zekeb@metraflex.com

Website:

www.metrafire.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



Newburgh Windustrial

65 Jeanne Drive Newburgh, New York 12550

Tel: 845 566 5300 Fax: 845.566.5340

Website:

www.newburghwindustrial.com

Management:

Dean Lucas. President James Lucas, Vice President Bob Lopuzzo, Sales and Business Development Manager

Senior Account Representative:

David J. Vandevar Cell: 914.646.3283

Company Profile:

As part of a national wholesale distribution organization, known as WinSupply Inc., Newburgh Windustrial specializes in wholesale distribution of pipes, valves, and fittings for the fire sprinkler industry. From its 60,000 sq. ft. facility in the mid-Hudson Valley, Newburgh Windustrial provides fire sprinkler contractors throughout the northeast with customized fabrication of fire sprinkler systems. With a sharp focus on personalized service. Newburgh Windustrial has the expertise to be knowledgeable about the products they sell as well as the technical requirements of their customers.

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:

George Rudolph, National Sales Mgr. -Engineered Fluids

Dave Wormmeester, Vice President

-Sales & Marketing

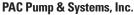
Sales Contact:

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.



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 Santa Rosa, California 94928 Tel: 877.934.3473

Email: twiitala@pacesupply.com

Website

www.pacesupply.com/divisions/fire-protection/

Founded:

1994

Primary Products/Services:

Plumbing, Fire Protection & Fabrication, Pump & Water Well, 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!

Perimeter Solutions

1520 Brookfield Avenue Green Bay, Wisconsin 54313 Tel: 920.593.9445

Website

www.perimeter-solutions.com



Permabond Engineering Adhesives

223 Churchill Ave. Somerset, New Jersey 08873 Tel: 800.714.0170 Fax: 732.868.0267 Email: info.americas@permabond.com

Website:

www.permabond.com

Founded:

1978

Primary Products/Services:

Adhesives, Sealants

Market Area:

Worldwide

Hours of Operation:

M-F 8:00 a.m.-5:30 p.m. EST

Company Profile:

Permabond, a leading manufacturer of engineering adhesives, supplies high-quality industrial adhesives to customers in virtually every industry worldwide, including products specifically designed for the Fire Protection Industry. Permabond Pipe Sealants use anaerobic technology to prevent leaks in sprinkler systems. Used in fabrication and installation, Permabond Pipe Sealants replace pipe dope and sealing tapes with a complete and reliable seal. Cure is initiated by the presence of metal and the absence of air. Permabond's sales and technical experts are ready to assist you with all of your bonding and sealing needs.

PHD Manufacturing, Inc.

44018 Columbiana-Waterford Rd. Columbiana. Ohio 44408

Tel: 330.482.9256
Toll-Free: 800.321.2736
Fax: 330.482.2763

Website:

www.phd-mfg.com Founded: 1972

Primary Products/Services:

PHD's products include pipe hangers, bean clamps, roller supports, clamps, brackets, threaded accessories, nuts, bolts, fittings, braces, as well as strut product that include channel, clamps, nuts, inserts fittings, braces, brackets, bases and more. PHD also carries Fire Protection and Seismic products featuring CPVC straps and sway brace fittings.

Market Area:

U.S.,

Hours of Operation:

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

Management:

Joe Corvino, President Jonathon Corvino, Vice President of Sales 330.921.9362

Rick Persing, Nat'l Sales Manager, Sprinkler Division

Gene Hancock, National Sales Manager, Electrical Division

Sales Contact:

Rick Persing, Nat'l Sales Manager, Sprinkler Division

Tel & Fax: 574.536.3857

Company Profile:

PHD Manufacturing, Inc. is a leading domestic manufacturer in the commercial and industrial plumbing, mechanical, electrical and fire protection industries since 1972.

Known for its service, PHD takes pride in providing quality products, problem solving solutions and on-time deliveries. With one of the largest inventories in the industry, the company's 23+ stocking warehouses make PHD products accessible throughout the United States and worldwide.

To find solutions to fit your need. Call 1-800-321-2736 or send an e-mail to customerservice@ phd-mfg.com today!

Pipe Fabricators

8580 Valley Forge Lane N Maple Grove, Minnesota 55369

Tel: 763.488.8100 Toll-Free: 866.747.7473 Fax: 763.488.8140

Website:

www.pipefabricatorsps.com

Founded:

1984

Primary Products/Services:

Sprinkler supplier with fabrication

Market Area:

Minnesota, North Dakota, South Dakota, Nebraska, Illinois, Wisconsin, Iowa

Hours of Operation:

6:00 am - 5:00 pm Mon-Fri

Sales Contact:

Mark Augustson, General Manager

Tel: 763.488.8100 Fax: 763.488.8140

Company Profile:

Pipe Fabricators is a supplier of fire protection products and fabrication. Since its establishment, Pipe Fabricators has evolved from a fabricator to a sprinkler supplier with fabrication. Our company has emerged over the years and will continue to grow as we enter new markets and expand our product line.

Plumbers Supply Company

920 Washington Cove Lane Indianapolis, Indiana 46229-3917

Tel: 317.557.1559

www.plumbers-supply-co.com

Primary Products/Service:

Plumbing, Hydronics, HVAC, Fire Protection

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

INSIDE SALES: LOUISVILLE, KENTUCKY

Inside Sales Manager:

Mike Newton Tel: 502 540 0332 Cell: 502.817.2079

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

Sam Alvev Tel: 502.540.0223 Cell: 502.550.2053

Email: Sam.Alvey@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 Mabrev 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

5757 Phantom Drive St. Louis, Missouri 63042 Toll-Free: 314.595.6900 Fax: 314.595.6999

Email: orders@pottersignal.com

Website:

www.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

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 unequaled 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.grfs.com



Reliable Automatic Sprinkler Co., Inc.

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

Email: info@reliablesprinkler.com

Website:

www.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:

Celebrating our 1920-2020 Centennial, Reliable Automatic Sprinkler Co., Inc. is one of the world's largest manufacturers of fire sprinklers, fire protection valves, accessory products, and an international distributor of a complete line of system components required for a code-compliant sprinkler system. Reliable provides innovative, quality fire protection solutions for commercial, industrial, and residential properties while maintaining the highest level of customer service.

CORPORATE OFFICE:

103 Fairview Park Drive Elmsford, NY 10523 Tel.: 800.431.1588

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 (Hanover Park, II) 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 866.927.7776

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

> 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 +44 13 4231 4679 fax

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 503.282.5506 Tel 503.282.0092 fax

Response Fire Supply

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

Website:

www.responsefiresupply.com

RJB Wholesale, Inc.

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



Solberg/Perimeter Solutions

1520 Brookfield Ave Green Bay, Wisconsin 54313-8808 Tel: 920.593.9445

Email:

david.pelton@perimeter-solutions.com

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

Joe Stonecypher - Southern Region Sales Manager

Todd Wayshville - Western Region Sales Mgr.

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 fluoropolymerfree 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

2940 Orville Wright Way Wilmington, North Carolina 28405 Tel: 910.332.4173

Spears Manufacturing Company

15853 Olden Street Svlmar, 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@spppumps.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@spppumps.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

Wehsite:

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.

TLX Technologies

N27w23727 Paul Rd #200 Pewaukee, Wisconsin 53072 Tel: 262.970.8660

Website:

www.tlxtech.com



Talco Industries

6040 NE 117th Ave. Portland, Oregon 97220-1012

Tel: 503.668.1231 Fax: 503.688.1234 Email: ks@talcofire.com

Website:

www.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 a residential fire pump and tank for your home 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.tankconncetion.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

Email: PVF@titusindustrial.com

Website:

www.titusindustrial.com

Founded:

2016

Eaton's TOLCO™ & B-Line Series Products

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

Email: SeismicQuotes@Eaton.com

Website:

www.Eaton.com/TOLCO

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.

Unimech Flow, Inc.

7075 FM 1960 Rd W. Ste 16 Houston, Texas 77069 Tel: 713.885.6757

Website:

www.unimechflow.com

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

United Brass Works, Inc.

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

Email: jim.sattler@ubw.com

Website:

www.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.

Uponor Inc.

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

Email: kate.olinger@uponor.com

Website:

www.uponor-usa.com

Founded:

1620

Primary Products/Services:

Residential Fire Sprinkler Systems

Market Area:

North America

Management:

Kate Olinger, Sr. Manager, Residential Segment

Company Profile:

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. Visitwww.victaulic.com and follow us on LinkedIn, Facebook, Twitter, and YouTube.



Viking Group, Inc.

5150 Beltway Dr. SE Caledonia, MI 49316 TeleTel: 269.945.9501 Toll Free: 800.968.9501 FAX: 269.945.9599

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
- 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

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: Jim Gudger, Dave Swanson, 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 Havward, CA 94544 TeleTel: 510-429-7295 Fax: 510-429-7297 vfshayward@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 vfscolumbus@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 vfshouston@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
- $\cdot \ Romania$
- · 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

viking sing apore @viking corp.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

Water Storage Tanks, Inc.

PO Box 942 Dripping Springs, Texas 78620 Tel: 512.516.4304

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

Email: scott.dimmick@wheatland.com

Website

www.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 Bussiere, Technical Consultant Sales Contact: Scott Dimmick. Southeast Regional

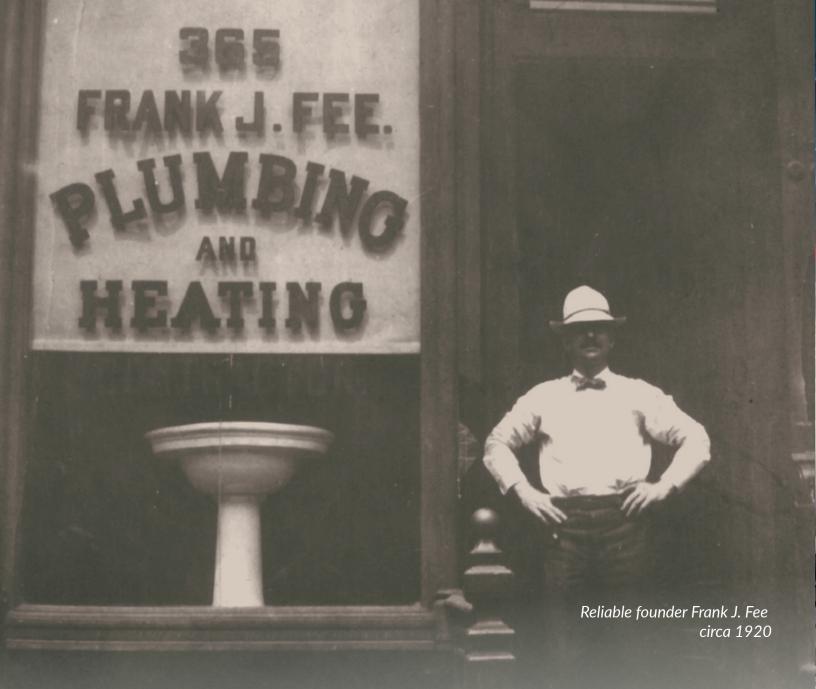
Manager

Email: scott.dimmick@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



From humble beginnings...





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.

ZCL/Xerxes

7901 Xerxes Avenue South Minneapolis, Minnesota 55431 Tel: 403.828.4147

Website:

www.zcl.com



NFSA PROFESSIONAL MEMBERS GUIDE

INDIVIDUALS

Naim Ali

D'Abadie, West Indies

David Arvin

Springfield, OH

Vinny Bove

Wading River, NY

Brad Boyland

Greensboro, NC

Tom Christman

Knoxville, TN

Kathryn Cifa

Ashburn, VA

Dwayne King

Rincon, GA

Aron Lefkowitz

Brooklyn, NY

Peter Neilio

Atlantic Beach, FL

Danette Parker

Lubbock, TX

Matthew Peterson

Belle Mead, NJ

Edward Raczkowski

Flushing, NY

Angela Sosnosky

Youngstown, OH

Businesses

ABG Contracting

315 White Avenue Cove City, NC 28523 Phone: 252-649-6774 Contact: William Jones

Email: jonesfireprotection@yahoo.com

Aero Automatic Sprinkler Co.

21605 N Central Ave Phoenix, AZ 85024-5103 Phone: 623-580-7840 Contact: Thomas Orozco Email: torozco@aerofire.com

Allfire Equipment

7337 NW 79th Terrace Medley, FL 33166 Phone: 305-688-1998 Contact: Mr. Carlos E. Soto Email: sales@allfireusa.com

Website:

https://allfireusa.com/

Services:

Sale and Distribution of fire protection equipment

- Fire Extinguisher Sprinklers Fire Pump Detectors (Fire, Flame, Thermal, Smoke and more)
- \bullet Alarms \bullet Horns \bullet Fire Suppression System \bullet
- Clean agent system Foam System Fittings Valves and Hydrant Iron Pipes Seismic
- Clamping Pipe And More

Accent Fire Engineering Int'l, Ltd.

4001 Office Court Dr. Ste 606 Santa Fe, NM 87507 Phone: 800-503-1961 FAX: 505-474-4184

Contact:

Jerry D. Watts, President

Email: accentfire@aol.com

Services:

Fire protection engineers since 1991. NICET designers & inspectors, third-party plans review, code consultation. Licensed in AZ, CA, CO, NM, TX, NV. Expert witness/legal services.

Affiliated Engineers, Inc.

5802 Research Park Blvd Madison, WI 53719-1249 Phone: 608-441-6672 Contact: Felipe Hernandez

AFP

3815 Bunker Hill Rd Brentwood, MD 20722-1517 Phone: 301-985-3031 Contact: Mehran Mohammad Email: alliedfireinc@msn.com

Allied Services Integrated Healthcare

100 Abington Executive Park Clarks Summit, PA 18411 Phone: 570-881-9870 Contact: Fran Walsh

Email: fwalsh@allied-services.org

Accord Solutions Group, LLC

233 SW Greenwich Drive #145 Lee's Summit, MO 64082 Phone: 913-735-0373 Contact: Brandon Folse Email: brandon@accordsg.com

Alarm Association of Florida

1830 N University Dr Ste 329 Plantation, FL 33322-4114 Phone: 954-748-7779 Contact: Sean Guthrie Email: sguthrie@fla-alarms.org

Alvine Engineering

1201 Cass Street Omaha, NE 68102 Phone: 402-346-7007 Contact: Nicholas Bernard Email: nbernard@alvine.com Website: www.alvine.com

APEX Fire Design, LLC

1860 Frost Circle Brunswick, OH 44212 Phone: 440-537-1850 Contact: Christopher Beleal Email: chris@apexfiredesign.com

Apex Safety Solutions Ltd

Unit 1, Deacon House, Leeward Hwy Providenciales. Turks & Caicos Islands Phone: 1-649-342-6824

Website:

https://www.facebook.com/apex.safety. solutions.tci

Contact:

Khama Coalbrooke, Director Email: info@apexsafetysolution.com

Fire Protection Equipment Sales - Fire Protection Equipment Maintenance - Fire Protection Equipment Installations - Fire Extinguisher Training - Fire Warden Training - First Aid, CPR & **AED Training**

Aquatech, Inc.

680 Heacock Rd. Ste. 204 Yardley, PA 19067-6346 Phone: 215-783-5510 FAX: 215-790-0404 Contact: Rocco Diilio Email: rdiilio@ag2000.com

Artisan's Construction & Renovations, Inc.

8130 E 7th St Tulsa, OK 74112 Phone: 918-527-1579

Associates Engineering Systems LLC

5445 Wakefield Ave. Mount Pleasant, WI 53406 Phone: 262-898-9160

Website: www.associatesengineering.com Contact: Mark E. Miller, P.E., President

Services: Consulting and design of fire protection

systems. Please see website for details.

As-Tech Industries, Inc.

2016 Sabinal Street Mission, TX 78572 Phone: 609-442-3372 Contact: Greg Loomer

Astor Park Designs

1721 Villa Contesa Drive NW Los Lunas, NM 87031 Phone: 920-883-1047 Contact: Samuel Nelson

Email: sam@astorparkdesigns.com

Automatic Fire Suppression Design

4622 Cleveland Avenue Saint Louis, MO 63110 Phone:314-226-6454 Contact: William Woodward

Baja Design Engineering S.C.

1224 Jasmine Street Calexico, CA 92231 Phone: 686-905-9855

Website:

www.bajadesign.com.mx

Contact:

Frank Guzman

email: fguzman@globalmechanical.com.mx

Products/Services:

Fire protection systems. Systems designed according to international codes, norms and local ordinances on fire protection. Automatic sprinkler systems. Protection systems with hose cabinets. Pumping systems and storage tanks. Special extinguishing systems. Special risks, Hydraulic calculations. Seismic calculations. Fire Alarm systems. We provide engineering to develop special projects of fire protection alarms. Notification systems (pull-down stations and sirens). Monitoring systems and sprinkler systems, supervision, pumping equipment and water reservoir tanks. Smoke detection systems. directional/conventional. Proiected beam detection, detection by smoke aspiration. Special gases detection. Intelligent control panels, Remote events monitoring. Smoke Control and handling.

Battelle Energy Alliance

1955 Fremont Avenue Suite 550 Idaho Falls, ID 83404 Phone: 208-526-2842

Contact:

Michael Cates, Norman Reece, Dustin Stokes

Email: norman.reece@inl.gov

BCE Engineers, Inc

6021 12th Street E. Ste. 200 Fife, WA 98424

Phone: 253-922-0446 FAX: 253-922-0896 Contact: Fred Blanchard

Email: fred.blanchard@bceengineers.com

BCER Engineering

5420 Ward Road Arvada, CO 80002 Phone: 303-422-7400

Contact: Savannah Donarski, Claire Mestler

Email: sdonarski@bcer.com

Benchmark Group, Inc.

1805 N 2nd Street Rogers, AR 72756 Phone:479-986-1230 Contact: Orrin Marcano Email: ohm@teamofchoice.com

Bety Experts-Conseils Inc.

146 Rue Lacrochelle

St. Narcisse de Beaurivage, Quebec

Phone: 418-475-4502 Contact: Jacques Bety Email: jbety@bety-experts.com

Bolstad Design Associates, Inc.

5461 38th Ave S Fargo, ND 58104-8986 Phone: 206-661-0506 Contact: Jason Bolstad Email: jdbully3671@gmail.com

Bouthillette Parizeau et Associés

8580 Avenue de l'Esplanade, suite 200 Montreal, Quebec Canada H2P 2R8 Phone: 514-383-3747

Website:

www.bpa.ca

Contact:

Claude Décary, President

Email:

info@bpa.ca

Services:

Building Condition Reports and Capital Planning Due diligence studies Diagnostics and troubleshooting Plans and specifications Modeling (BIM) Detailed engineering Implementation strategy and phasing Estimates Managing of tenders Quality control of installations Performance verification Cost and schedule control

BRG Fire Sprinkler Design

12650 Blosser Road North Lima, OH 44452 Phone: 330-207-4312 Contact: Benjamin Pahanish

Briggs & Stratton

4321 S Griffin Ave Milwaukee, WI 53207-5041 Phone: 414-256-5170 Contact: George Borowski Email: borowski.george@basco.com

Brodz Sale & Engineering Company

10751 Indian Head Industrial Blvd. St. Louis, M0 73132-1101 Phone: 314-890-8201 Contact: Robert Carey

Builder's Book, Inc.

Email: bcarey@brodz.com

8001 Canoga Ave Canoga Park, CA 91304 Phone: 818-887-7828 Fax: 818-887-7990 Contact: Oussa Awad Email: sales@buildersbook.com

Burns & McDonnell

8201 Norman Center Drive Suite 500 Bloomington, MN 55437-3460 Phone: 952-656-6003

Website:

www.burnsmcd.com

Contact:

Paul Watercott

Fmail:

fire@burnsmcd.com

Services:

Burns & McDonnell provides fire protection solutions for commercial, aviation, manufacturing, industrial, military, healthcare and education clients. Our full-service capabilities include studies, planning, design, permitting support, procurement support and construction administration services. Our specialized team of individuals, solely dedicated to fire protection, have experience supporting complex project types including oil and gas plants, aircraft hangars, food processing facilities and hospitals. Founded by two entrepreneurs in 1898, Burns & McDonnell is a family of companies made up of 7,000 engineers, architects, construction professionals, scientists, consultants and entrepreneurs with offices across the country and throughout the world. We strive to create amazing success for our clients and amazing careers for our employee-owners. Burns & McDonnell is 100% employee-owned and is proud to be on Fortune's 2019 list of 100 Best Companies to Work For. For more information, visit burnsmcd.com.

CAFT Fire Services

1575 Mendocino Dr, Unit 8 Chula Vista, CA 91911-6039 Phone: 664-311-4551

Contact: Carlos Alberto Flores Torres

Calico-Sterling Company

1015 Acacia Lane Davis, CA 95616-3213 Phone: 530-219-1960 Contact: William Greene

Email: billgreene@calico-sterling.com Products/Services: Fire Protection Consultant

Campus Canopies, LLC

1016 Saint Georges Road Baltimore, MD 21210 Phone: 443-841-6980 Contact: Debra Williams

Email: debra@campuscanopies.com

Carlson Design

55 Red Stone Drive Weatogue, CT 06089-9608 Phone: 860-651-0622 Fax: 860-651-1221 Contact: Leslie Carlson

Cedarville Engineering Group

126 Main Street Denver, PA 17517-1612 Phone: 717-572-6069 Contact: Brian Nicarry

Centerline Design, LLC

6361 W. 800 N. McCordsville, IN 46055 Phone: 317-410-2200 Contact: Patrick Murray, Owner Email: pmurray@centerlinedesignIlc.com

Central Kitsap School District

9102 Dickey Road NW Silverdale, WA 98383-8860 Phone: 360-662-8260

Contact: Winston Danseco, Alarm Technician

Email: winstond@ckschools.org

Website:

http://www.ckschools.org/

Charles G. Michel Engineering PC

470 Mamaroneck Ave. Ste 411 White Plains, NY 10605 Phone: 914-949-5112 FAX: 914-949-5116 Contact: Charles Michel

Email: cmichel@cgmengineering.com

Chromalox

1347 Heil Quaker Blvd. Lavergne, TN 37086-3518 Phone: 615-213-8173 Contact: Chris Myers

Email: chris.myers@chromalox.com

Cinnco, Inc.

621 E. Grand Ave. Fruita, CO 81521 Phone: 970-261-0660 Contact: Gary Curtis Email: gcurtis@cinnco.com

City of Decatur, IL

1 Gary K Anderson Pl Decatur, IL 62523-1005 Phone: 217-424-2787 Contact: Eric Watkins

Cloninger Consulting

2793 Lake Shore Road South Denver, NC 28037 Phone: 714-616-7425 Contact: Richard Cloninger

Coastwide Fireguard, Inc.

3050 Boulder Ridge Rd Webster, MN 55088 Phone: 651-248-5148 Contact: Linda French

Code Consultants, Inc.

2043 Woodland Parkway, Ste 300 St. Louis, MO 63146 Phone: 314-991-2633 Fax: 314-991-4614

Website:

www.codeconsultants.com

Contact:

Will Smith, FPE

Services: Internationally recognized fire protection and life safety consulting firm, providing a diverse range of crucial fire protection and life safety

consultation and design services. Email: wills@codeconsultants.com

Codes-Based Solutions, LLC

1224-B Columbia Ave. Ste 110 Franklin, TN 37064 Phone (615) 804-1349

Website:

www.codesbasedsolutions.com

Fmail:

rtrotter@codesbasedsolutions.com

Contact:

Robert Trotter, Owner, Sr. Fire Protection Consultant

Services:

Codes-Based Solutions, LLC. —an independent consulting firm specializing in a broad range of fire protection, life safety, and codes-based consulting services, locally and nationally. The firm provides codes-based solutions for the built environment and our expertise ranges from homes to high-rise.

Coffman Engineering

751 Osterman Dr #104 Bozeman, MT 59715 Phone: 406-582-1936

Website:

www.coffman.com

Contact:

Mark Gouveia, Engineer

Email:

gouveia@coffman.com

Columbine Health Systems

802 W Drake Rd Fort Collins, CO 80526-5567 Phone: 970-566-2956 Fax: 970-482-9148 Contact: Roy Malaske

Concordia Lutheran Church

17906 Garden Ln Hagerstown, MD 21740-7908 Phone: 301-797-5955 Contact: TL Bowman

Consulting Engineering Services, Inc.

811 Middle St. Middletown, CT 06457 Phone: 860-632-1682 FAX: 860-682-1768

Contact: Delbert Smith, Jr. Principal Email: dsmith@cesct.com

Contreras International, Inc.

733 Colchester Dr El Paso, TX 79912 Phone: 915-316-4397 Contact: Daniel Contreras Email: daniel@contreras1.com

Crook County Building Dept.

300 NE 3rd St. Prineville, OR 97754-1919 Phone: 541-447-3211 Contact: Jeremy Thamert

Email: Jeremy.thamert@co.crook.or.us

CrossFire Group, Inc

15116 East 117th Avenue Brighton, CO 80603 Phone: 303-898-0301

Contact

RJ Dussart, PE, FP Engineer

Email:

rjdussart@xfireinc.com

Services

Fire Protection Engineering Consulting, plan review, fire suppression design, High-Piled Storage Permits.

Dave Watson Associates

1325 West Beecher Rd. Adrian, MI 49221 Phone: 517-263-8988 FAX: 517-263-2328 Contact: Dave Watson

Davidson Associates

PO Box 4002 Greenville, DE 19807 Phone: 302-994-9500 Fax: 302-994-3414 Contact: James Davidson

Email: jdavidson@davidsonassociates.net

Davis Design Services

5508 Fountain Gate Rd. Knoxville, TN 37918 Phone:865-456-7466 Contact: Mark Davis Email: mark@davisfire.us

DeMars Fire Protection Design LLC

4159 Valley View St, PO Box 245 St. Bonifacius, MN 55375 Phone: 952-451-9767 Contact: Greg DeMars, Owner Email: greg@demarsfire.com

Design Learned, Inc.

PO Box 703 Columbia, CT 06237-0703 Phone: 860-234-4000 Contact: Ronald Miles

Design Line

7910 171st Lane NW Ramsey, MN 55303 Phone: 763-274-0768 Cell: 612-309-0554

Contact: Bruce Thomas, Owner

Products/Services:

All types of design @ 3D coordination. 31 years in the trade.

Design West Engineering

Address: 5294 Sierra Drive San Bernardino, CA 92407-3239

Phone: 818-519-2215 Contact: David Marghezi

DFPS. Inc.

5270 Princeton Road Liberty Twp, OH 45011-8412 Phone:513-887-0016 Fax:513-887-0059 Email: dfps@fuse.net

Contact:

Ralph Davidson

Services:

State of Ohio and NICET Certified, 48 years' experience in all types of water based fixed fire sprinkler systems and associated appurtenances. Use AutoSPRINK for hydraulic calculations and input to Navisworks models.

Donald Mayo-Fire Protection Consultant, Inc.

150 Grove Circle Pleasant Hill, CA 94523 Phone: 925-933-6299 Fax: 925-933-6288

Website:

www.donaldmayo.com

Contact:

Donald Mayo, President

Services:

Code consulting, fire detection & suppression systems specifications, risk and hazard assessment, plan review for code and standards compliance, property inspections and life safety analysis.

Email: donmayofpc@aol.com

Down Home Sprinkler Design Code

17452 Hibiscus Ävenue Lakeville, MN 55044 Phone: 952-212-99655 Contact: Daniel Haley

Email: danhaley.design@gmail.com

Draw 4 Me Fire Systems

4045 Almendro Ct. Modesto, CA 95356 Phone: 209-543-6190 FAX: 866-927-3129

Contact: Aaron Juarez, Kaleb Porter, Beau Juarez,

Trevor Baum

Email: draw4mefire@att.net



Dyne Fire Protection Labs

2357 Ventura Drive Ste. 108 Woodbury, MN 55125-1944 Phone: 651-917-0644 Fax: 651-917-0646

Website:

www.dyneusa.com

Contact:

Julie Bunch

Email:

julie@dyneusa.com

Products or Services:

Dyne Fire Protection Labs is an independent compliance testing laboratory serving customers throughout the world and is ISO-9001 certified. Dyne specializes in testing Fire Sprinklers, Firefighting Foam (NFPA and International Maritime Organization Standards), Dry Chemical and Antifreeze Solution for Sprinkler Systems. Dyne makes it easy for you to stay compliant with critical NFPA 25 fire protection and safety codes by offering: unmatched customer service, guaranteed 5 business day turn-around times for your test results, with 24 to 36-hour rush services available for most services. Free sample test kits for standard fire sprinklers, firefighting foam, dry chemical and anti-freeze solution, postage-paid ground shipping to you, and for your samples shipped to our lab from locations within the continental (lower 48) USA (for most types of testing). Direct communication with our chemists and technical staff. Laminated tank or system tags available to you by mail and reports emailed (pdf). Free reminder services. Online access to test reports. Dyne Fire Protection Labs... partnering to protect lives and property by helping you meet your NFPA 25 testing requirements.

EAG Fire Systems

168 Wynntry Circle Henderson, NV 89074-3356 Phone: 702-371-9625 Contact: Eric Gonzales Email: eric@eagfiresystems.com

EBL Fire Engineering-Div. of EBL Engineers

8005 Harford Rd. Suite A Parkville, MD 21234 Phone: 410-668-8000 Fax: 410-668-8001

Contact: Jeffrey Paul McBride, Daniel Bentzen

Email:

jmcbride@eblengineers.com

Products/Services:

EBL's fire protection division includes licensed fire protection engineers specifically trained in risk analysis, hazard assessment and the design of fire protection and detection systems.

Encova Insurance

471 E Broad Street Columbus, OH 43215 Phone: 563-321-2832

Contact: William Doornbos, Ron Lucarelli Email: william.doornbos@encova.com

Engineered Design Group

31 Nathan Hale Pl. Freehold, NJ 07728-1386 Phone: 732-761-0108 FAX: 732-761-0109 Contact: Paul Schwartz

Engineered Fire Systems, Inc.

11832 Tammy Way Grass Valley, CA 95949 Phone: 530-274-9400 Fax: 530-274-9488

Website:

www.engineeredfiresystems.com

eprice@efs1.com

Contact:

Eric Price, SET, President Products/Service: Fire sprinkler system shop drawings, calculations and material lists. Plan review and consulting services.

Engineering Dynamics Corp.

900 Eha Street Wailuku, HI 96793 Phone: 808-242-1644 FAX: 808-242-0838 Contact: Douglas Gomes, P.E.

Email: edc@maui.net

Eriksberg Engineering Ltd.

470 East 10th Avenue Vancouver, BC V5T2A1 Phone: 604-209-2594

Website:

www.eriksberg.ca

Exp

2601 Westhall Lane Maitland, FL 32571 Phone: 407-660-0088

Website: www.exp.com

Contact:

Christopher Zwicky

Exponent

17000 Science Drive Suite 200 Bowie, MD 20715

Phone: 301-291-2525 Contact: Nicholas Nava

Email:

nnava@exponent.com, yutiskul@exponent.com

Exponent, Inc.

17000 Science Dr. Ste. 200 Bowie, MD 20715 Phone: 301-291-2501 Fax: 301-291-2599

Contact: Richard Long, Jr., Principal Engineer

& Office Director

Website:

www.exponent.com/fire_protection_engineering

Provide engineering failure analysis and forensic fire protection engineering services for subrogation and litigation purposes. Also perform traditional fire/life safety evaluations/analyses.

F2M Fire & Drafting Designs INC

1231 Lafayette Ave (2nd floor)

Bronx, NY 10474 Phone: 914-510-3236 Fax: 718-228-6515

Name: Fernandez McKenley, President

Email: info@f2mfadds.com

Website:

www.f2mfadds.com

Services:

Fire sprinkler design & calculations standpipe layout & calculations seismic design & calculations fire pump layout 2D & BIM coordination material listing.

Farris Engineering

650 1st Street Colorado Springs, CO 80907-5458

Phone: 719-635-0900 Contact: Ashley Davis Email: adavis@farris-usa.com

FCCI Insurance

6300 University Parkway Sarasota, FL 34240 Phone: 1-800-226-3224 Contact: Greg Hare Email: ghare@fcci-group.com

Fire Designs Concepts, LLC.

895 Millrace Way Sugar Hill, GA 30518 Phone: 678-478-2741 Contact: Ray Vance

Fire Design, Inc.

600 W. Bypass Hwy 19E Suite 202

Burnsville, NC 28714 Phone: 828-284-4772

Website:

www.fire-design.com

Contact:

Cliff Whitfield, President

Email:

cliff@fire-design.com

Products/Services:

We offer fire sprinkler design based on experience, cost effectiveness and common sense. Our owner, Clifford R. Whitfield, has been in the fire sprinkler contracting industry since 1985. He holds a NICET Level IV certification in Fire Protection Engineering Technology - Automatic Sprinkler System Layout

Fire Pro Tech. LLC

6830 N Eldridge Pkwy Houston, TX 77041 Phone: 832-207-2727 Contact: Brent Adams

Fire Protechs, Inc.

512 Sanford Avenue Sanford, FL 32771 Phone: 407-608-5604 Contact: Chris West Email: cwest@fptechs.com

Fire Protection Design Consultant

2294 Georgetown Circle Aurora, IL 60503 Phone: 630-638-0265

Contact: Joseph M. Henk, Fire Sprinkler Designer

Fire Protection Design, Inc.

14 Denver Dr.

New City, NY 10956-2305 Phone: 845-634-2133 Fax: 845-623-1533

Contact: Michael Koutsoftas

Email: fireprotectiondesign@verizon.net

Fire Protection Engineering

1062 Central Avenue Albany, NY 12205 Phone: 518-275-0791 Contact: Chris Geer Email: cgeer@ranfpe.com

Fire Safety Consultants, Inc.

2420 Alft Ln. Elgin, IL 60124 Phone: 847-697-1300

Contact: Keith S. Frangiamore, President

Email:

kfrangiamore@firesafetyfsci.com

Fire Safety Solutions

1405 E Omaha Ave Fresno, CA 93720-2250 Phone: 559-274-3925 Contact: Matthew Tarr Email: fss.tarr@gmail.com

Fire Suppression Design Services, LLC

33428 Azalea Ridge Dr Wesley Chapel, FL 34545-5110 Phone: 813-428-5996 Contact: William Roy Email: wroy@fsdsllc.com

Fire Suppression Design, Inc.

891 South Second Street Ronkonkoma, NY 11779 Phone: 631-885-5042 Fax: 631-737-3884 Contact: Howard Flood Email: HFlood6020@aol.com Services: Fire Suppression Design

Fire-Ex Systems Engineering, Inc.

500 N. 3rd St. Suite 112 Wausau, WI 54403 Phone: 715-359-5684

Website:

www.firexsys.com

Contact:

Russ Slaby

Email

russ@firexsys.com

Services:

Engineering & Design

What We Do:

On time, coordinated 3D design from plan or on-site survey anywhere in the world. Hydraulic

calculation and/or analysis of new or existing systems for purposes of new design approval, occupancy changes or system evaluation. Production of detailed and pre-coordinated shop drawings for submittal to AHJ for approval, prefabrication and installation. AS-built drawings can be provided if desired as part of the order. Composite listing of all materials required to fabricate and install the system. In addition, we can provide a list of piping to be prefabricated and group by line and main designation. Preconstruction planning and preliminary drawing preparation. This can include help in developing budgets for the purpose of submitting project AFEs. Our company provides real world application and design intended for the prefabrication and finally installation by others. While we do not offer installation, we do provide completed design with stock lists and shop drawings that can be issued for true "apples to apples" bid results. You can be in control of your installation and know that every installer was bidding from plans and specs indicating material and an installation you have already approved.

Fireline Corporation

4605 Hollins Ferry Rd Baltimore, MD 21227-4609 Phone: 410-247-1422 Contact: Ted Reitterer Email: treitterer@fireline.com

Firestein & Firestein

5900 Sepulveda Suite 350 Van Nuys, CA 91411-2575 Phone: 818-785-1999 Contact: Martin Firestein

Email: mfirestein@firesteinlaw.com

First Priority DKI

301 N Woodbury Street South Elgin, IL 60177 Phone: 847-931-1600 Contact: T.J. Seiffert

Email: tjseiffert@firstprioritydrs.com

Flagship Fire

2810 Notre Dame Drive Titusville, FL 32780 Phone: 321-289-2889 Contact: Jeff Trew

Florida Fire Protection Associates Inc.

4781 N Congress Avenue Boynton Beach, FL 33426 Phone: 561-963-8258 Contact: Nick Scolaro

Email: nscolaro@floridafireprotection.org

FP Engineer

13485 NW Skyview Ave Kansas City, MO 64163 Phone: 816-500-5477 Contact: Daniel Smith Email: dsmith@fpengineer.com

Fullerton Fire Dept.

Yucca Valley, CA 92286

Contact: David Rodriguez

Phone: 760-401-0521

PO Box 1192

Global Fire & Mechanical Supply, LLC

10634 Grand Riviere Dr. Tampa, FL 33647 Phone: 813-760-3860 Contact: George Benitez

Email: georgebenitez.gfmsp@gmail.com

Florida Fire Protection Consultants, Inc.

4330 Raggedy Point Rd Fleming Island, FL 32003 Phone: 904-579-1335 Email: jduke@flfire.com

Website:

www.flfire.com

Contact:

Jim Duke, President

Services:

Fire Protection Design and Consultation Services, 3 D BIM Coordination, Stocklisting.

Furman Insurance Agency

1314 E. Atlantic Blvd.
Pompano Beach, FL 33060
Phone: 954-943-5050
FAX: 954-590-9964
Contact: Carlos Chinchilla

Email: carlos@furmaninsurance.com

GoCad, LLC.

3168 Willow Springs Circle Venice, FL 34293-1448 Phone: 941-244-0252 Contact: Gus Olson

Email: gus@gocad-design.com

Fluor Federal Solutions LLC

4050 Peppers Ferry Rd Radford, VA 24141 Phone: 864-281-8398

Contact: Dylan Reid, CSP, CET, CFPS Email: dylan.reid@fluor.com

Carlos Chinchilla Contact

G. Tim Stone Consulting, LLC

117 Old Stage Rd. Essex Junction, VT 05452-2518 Phone: 802-434-2968

Contact: Tim Stone

Gagnon Engineering

Phone: 301-461-6949

Contact: Robert Gagnon

Fax: 401-489-0140

Woodbine, MD 21797,8126

2660 Daisv Rd.

Goshen Park Capital, LLC.

4445 Willard Ave Ste 630 Chevy Chase, MD 20815 Phone: 240-506-6701 Contact: BJ Jacobs

Email: bjacobs@goshenparkcapital.com

Fortier Engineering

5889 Forbes Avenue Suite 330 Pittsburgh, PA 15217-1652 Phone: 412-521-1880

Website:

www.fortierengineering.com

D - -- ' - I

Daniel Fortier, Principal

Email:

dfortier@fortierengineering.com

Services:

Fire Suppression systems design, HVAC & Plumbing systems design, Energy Modeling, Commissioning & LEED consulting.

Garver, LLC.

4701 Northshore Dr North Little Rock, AR 72118-5325 Phone: 501-376-3633

Contact: Joseph Kaminski Email: jbkaminski@garverusa.com

Great Plains Fire Specialists. Inc.

106 S. 6th Street Plattsmouth, NE 68048 Phone: 402-660-8167

Email: jeremy@greatplanis-fire.com

Website:

http://greatplains-fire.com

Contact:

Jeremy Hadfield, Mike Zechmann

Services

Great Plains Fire Specialists, Inc. provides fire sprinkler submittal & shop drawings prepared in 3D format using AutoSPRINK design program. Our team of NICET level certified designers with broad knowledge of all water-based fire sprinkler system types. We focus on design, material, and labor costs on both new construction and site surveys. Complete listing of all materials necessary to fabricate and install a system can be provided. 3D coordination is offered as well. Also, we provide property loss control consulting for facility owners and fire protection consulting for engineering firms.

Fox Valley Fire

510 W Tanglewood Dr Arlington Heights, IL 60004-1908 Phone: 847-344-2195

Contact: Eric Tatum Sr.

Greenstreet

112 E 82nd Street Lubbock, TX 79404 Phone: 806-745-9444

Website:

www.ggreenstreet.com Contact: Mike Kemp

Guardian Security Systems, Inc.

2600 Seward Hwy Anchorage, AK 99503-2805 Phone: 907-274-5275 Contact: Danielle Bowman

HFS Design

359 Shockdrake Ct. Wentzville, MO 63385 Phone: 636-332-9578

Website:

www.hfsdesign.mysite.com

Email

tonyh@hfsdesign.net

Contact:

Tony Hakenwerth, Owner Services: Water based Fire Sprinkler system engineering. Complete design, PE seal and material list.

Hampton Fire Design, LLC

4950 NW 55th Ct. Tamarac, FL 33319-3287 Phone: 954-994-6692 Contact: Jim Hampton Email: hfdllc@outlook.com

Service:

Design, Hydraulic Calculation & Stocklisting of Water Based Fire Sprinkler Systems.

Haverford College Campus Safety

370 Lancaster Ave Haverford, PA 19041-133 Phone: 610-896-1111 Contact: Mark Sweeney Email: msweeney@haverford.edu

Hawk Fire Design, Inc.

177 Jupiter Trail Weatherford, TX 76088 Phone: 817-594-4454 Contact: Mark Davis

Email: hawkfirepro@gmail.com

Services:

Fire sprinkler system design services.

Henderson Engineers, Inc.

8345 Lenexa Drive Suite 300 Lenexa, KS 66214-1777 Phone: 913-742-5539 Contact: Mike Phillips

Email: mike.phillips@hendersonengineers.com

Wehsite

www.hei-eng.com/

Hernandez Fire & Safety, Inc.

Calle 163 CX 29 Carolina, Puerto Rico 983 Phone: 787-447-1437 Contact: Wascar Hernandez

Holley-Navarre Fire District

8618 Esplande St Navarre, FL 32566-2137 Phone: 850-939-5236 Contact: Joe Early Email: inspector@hnfd.org

Honda North America

24000 Honda Parkway Marysville, OH 43040 Phone: 937-538-0517 Contact: Rick Paulus Email: rick_paulus@hna.honda.com

Honda of America Mfg., Inc.

227 Rutherford Ave Delaware, OH 43015-1193 Phone: 937-642-5000 Contact: Brian Zyskowski

Email: brian_zyskowski@ham.honda.com

Hubbell Realty

6900 Westown Pwky West Des Moines, IA 50266 Phone: 515-210-5630

Website: www.hubbellrealty.com

Contact: Tom Stockdale, Senior Project Manager

Icon Fire Systems Design

92-324 Pueonani Pl. Kapolei, Hl 96707 Phone: 808-672-7214 FAX: 808-672-7214 Thomas Burtness, Owner Email: tom@iconfire.com

International Code Consultant

8207 Asmara Drive Austin, TX 78750-7857 Phone: 512-795-2900 Contact: Jeffrey Shapiro, PE

Email: jeff.shapiro@intlcodeconsultants.com

Interwest Consulting Group

9016 Biplane Way Fair Oaks, CA 95628 Phone: 916-726-0404 Contact: Vernon Brown

Janus Fire Systems

1120 Rupcich Dr Crown Point, IN 46307-7542 Phone: 630-827-9107 Contact: Sean Meehan

Jason M. Scates, PE

1805 N. 2nd St., Suite 5274 Rogers, AR 72756-2423 Phone: 479-631-5274 Contact: Jason Scates Email: jms@bgark.com

JEM Design Group, LLC

490 W. Rolling Meadows Suite C Fond Du Lac, WI 54937-8643

Phone: 920-238-9380 Contact: James Michels Email: jamesmichels@charter.net

Jensen Hughes

47 Ryerson Rd Warwick, NY 10990-3321 Phone: 312-879-7200

Website:

www.jensenhughes.com

Contact:

James Levitsky, Jim Zimmerman, Andrew Danick

jlevitsky@jensenhughes.com

JM Design Group

916 W 54th Street Los Angeles, CA 90037 Phone: 323-907-3423 Contact: Jorge Mejia

Johnson Controls/TFPP

1467 Elmwood Avenue Cranston, RI 02910-3849 Phone: 845-235-7088 Contact Name: Kacee Paige Email: kaceelpaige@gmail.com

JS Consulting

Blanchard, OK 73010 Phone: 405-476-4737 Contact: Jairo Soto

Email: firesystemspro@live.com

JW Fire Sprinkler Design

5 Mezabish Pl. Unit 201 Monroe, NY 10950 Phone: 845-234-4599 Contact: Joel Werzberger

K & E Fire Protection

14 Plaza 9

Manalapan Township, NJ 07726

Phone: 732-303-1717 Email: sales@kefire.com Contact: Ed Kay Jr. Email: edkayjr@kefire.com

Website:

www.kefire.com

Services:

CAD Drawings, Working Drawings, Estimate Lay-outs, Cost Estimates, Special Hazards, Hydraulic Calculations, New and Retrofit, 3D BIM Coordination, P.E. on staff- Registered in 45 States

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Kvlie Sievert

Krim Associates

45 Eisenhower Drive Suite 550

Contact: Jonathan Peters, David Scher Email: jpeters@krimassociates.com

Paramus, NJ 07652-1425

Phone: 201-632-2026

Lake Helen, FL 32744 Phone: 386-804-2651 Email: ksievert4@gmail.com

K & N Fire Protection

613 Cedarside Way Melbourne, FL 32940-1730 Phone: 321-745-0816 Contact: Megan Knoblock Email: megan@kandnfire.com

L.U.669

7050 Oakland Hills Rd, Suite 200 Columbia, MD 21046 Phone: 401-381-4300 Contact: Michael Manwiller

Kelly P. Reynolds & Association

PO Box 5518

Goodyear, AZ 85338-0609 Phone: 800 950 2633 Contact: Kelly Reynolds Email: codexperts@aol.com

Leadbetter Design

4 Bidwell Farm Rd Collinsville, CT 06019-3601 Phone: 571-226-0503 Contact: Chris Leadbetter Email: cleadbetter@chsprinkler.com

Kohler Ronan Engineers

93 Lake Ave. Danbury, CT 06810 Phone: 203-778-1017 FAX: 203-778-1018 Contact: Kevin Czarmecki

Leo A Daily

730 Second Avenue S Suite 1100 Minneapolis, MN 55402 Phone: 952-367-6910 Contact: Emily Gascho, Melisa Rodriguez, Nic Johnsen

Email: eagascho@leoadaly.com, marodriguez@ leoadaly.com, nsjohnsen@leoadaly.com

Kossfire, LLC

184 Laura Drive Gahanna, OH 43230 Phone: 614-687-6062 Contact: Richard Kossler Email: rick@kossfire.com

Lockheed Martin

7829 Windover Wav Titusville, FL 32780-3706 Phone: 321-225-4113 Contact: Kerry Hammers

Email: Kerry.l.hammers@Imco.com

Lund Fire Protection, Inc.

PO Box 459 Norwalk, IA 50211 Phone: 515-981-0912 Fax: 515-981-0913 Contact: Jonathan Lund Email: jlund@lundfp.com

Meridian Fire and Security, LLC

10200 East Easter Ave Centennial, CO 80112 Phone: 303-790-2520 Contact: George McNeill, CEO Email: info@meridianfire.com Website: meridianfire.com

Midwest Sprinkler Design, LLC

2911 S Englewood Avenue Evansville, IN 47714 Phone: 812-453-8648 Fax: 812-477-3366 Contact: John Kohtala. Owner

Email: johnk@midwestsprinkler.net

Services: Hydracad Fire Sprinkler Design Hass

Hydraulic calculations

Mack Fire Protection

15 Industrial Park PI Middletown, CT 06457-1501 Phone: 860-893-4414 Contact: Brian Sargent Email: sargent@mackfire.com

MeverFire

1316 Bridge Creek Trail Ellisville, MO 63021-4610 Phone: 636-299-0339 Website: www.meyerfire.com Contact: Joseph Meyer

Mile High Design Group, LLC

5151 Bannock St. Denver, CO 80216 Phone: 303-291-1012 Fax: 303-383-5023

Contact: Timothy N. Trostel, Jr., SET-President

Malek & Associates Consultants, Inc.

3560 S. Iowa Ave. St. Francis, WI 53235 Phone: 414-483-0100 FAX: 414-483-1211

Contact: David Malek, President Email: macifp@aol.com

MFP Design, LLC

3356 E Vallejo Court Gilbert, AZ 85298 Phone: 480-505-9271 Fax: 480-430-6107 Contact: Travis Mack Email: tmack@mfpdesign.com

Services:

Fire Sprinkler layout, design and consulting, all CAD design-3D design, NAVIS coordination, Hazen-Williams, Darcy-Weisbach formula calcs,

stock listing, plan reviews. Email: timjr@amsprink.com

McCombie Group

901 Ponce De Leon Blvd Coral Gable, FL 33134-3070 Phone: 703-861-1833 Contact: Rob Regan

Email: rregan@mcombiegroup.com

MG Fire Design, Inc.

19511 Progress Drive, Suite 2 Strongsville, OH 44149 Phone: 440-878-9621 Fax: 440-878-3939

Contact: Mark G. Karr, President, Sissy Long

Services:

Fire System design service. Commercial, industrial, residential, retrofit, and limited area. NICET Level IV and State of Ohio certified. BIM coordination experienced. Design exclusively with the AutoSPRINK software. Alternate to Cecil Bilbo, Jr. on the NFPA Technical Committee on Sprinkler System Installation Criteria (AUT-SSI).

Email:

mark@mg firedesign.com

MK Fire Protection & Supply, LLC

12749 Irelands Corner Drive Galena, MD 21635-1510 Phone: 856-816-5711 Contact: Barbara Baccile

Email: barb.baccile@mkfireprotection.com

MEP Associates Design Group, Inc.

717 W Houston St Tyler, TX 75702-7932 Phone: 903-597-3444 Contact: Lowrie Floyd Email: lowrie@mepgroup.net

MTCI Private Provider/Safebuilt

34680 SW 219 Avenue Homestead, FL 33034 Phone: 305-986-2854 Contact: Michael T. Causley

MEP Associates, Inc.

2720 Arbor Court Ste A
Eau Claire, WI 54701
Phone: 715-832-5680
Fax: 715-832-5668
Contact: Timothy Coach
Email: timc@mepassociates.com

Midwest Automatic Fire Sprinklers

4910 F St Ste 400 Omaha, NE 68117-1424 Phone: 402-558-7080 Contact: Tim DuBay

Email: omahasales@midwestfiresprinkler.com

Myers Fire Sprinkler Design LLC

475 Spice Bush Dr Liberty, TN 37095 Phone: 321-200-2071

Contact: Robert Myers, President

National Fire Control

2427 W. Lake Hazel Rd. Meridian, ID 83642 Phone: 208-284-5339 Fax: 866-807-5083 nationalfire@overarch.com Contact: Nick Anderson

Services:

Fire sprinkler design, NICET Level IV.

Nationwide Insurance

25W735 White Birch Ct Wheaton, IL 60189-5923 Phone: 630-520-3825 Contact: Jeff Brassel Email: jrbrassel@comcast.net

Nationwide Insurance

8777 N Gainey Center Dr Scottsdale, AZ 85258 Phone: 720-990-4248 Contact: Diana Craig

Email: diana.craig@nationwide.com

Nationwide Insurance

114 Devonshire Dr Lansdale, PA 19446-6318 Phone: 215-853-4977 Contact: Alex Olimpo

Neptune Fire Protection Engineering

60 Ocean Blvd. Ste 15 Atlantic Beach, FL 32233 Phone: 904-652-4200 Fax: 904-212-0868

Contact: Stephen Kowkabany, Owner

Services:

Design of fire sprinkler systems, fire alarm systems, site fire protection, smoke control systems, passive fire protection systems, life safety and special hazard systems. Email: steve@neptunefpe.com

Norfire Design, Inc.

23802 Gaberdine Road Saint Augusta, MN 56301 Phone: 320-492-3941 Contact: Eduard Meijer Email: emeijer@norfire.com

NorTech Fire Protection, Inc.

16409 Currie Rd SE Unit A110 Monroe, WA 98272 Phone: 425-898-9111 Contact: Jorge Miyagi

Northeast Fire Systems

140 Union St. Vernon, CT, 06066 Phone: 860-894-7447 Fax: 860-896-7448 Contact: William Cieslak Email: wcieslak@nefiresystems.com

Northern Support Services

1399 W 34th Ave, Suite 103 Anchorage, AK 99503 Phone: 907-952-4964

Website:

www.aknss.com

Contact: Steve O'Hara

Fmail:

sohara@aknss.com

Northwest Sprinkler Designs

3950 Palisades Park Drive Billings, MT 59102-0184 Phone: 406-534-6726 Fax: 406-534-6727 Contact: Bryan Kendrick Email: nwsdmt@gmail.com

Northwest Sprinkler Designs, LLC

18207 E. 10th Ave. Spokane Valley, WA 99016 Phone: 509-924-0520 Fax: 509-924-5348 Contact: Rene Gordon Fmail: nwsdl@comcast net

OLA Consulting Engineers

50 Broadway Suite 2 Hawthorne, NY 10532-1253 Phone: 914-919-3206 Contact: Christine DiSisto Email: cdisisto@olace.com

Olymbec USA

1004 E Brooks Rd Memphis. TN 38116 Contact: Peter DeGloma Email: pdegloma@olymbec.com

Omicron

595 Burrad St, 5th Floor Vancouver, BC V7X1L4 Phone: 604-632-1114 Contact: Jack Zhang

Optimum Low Voltage

6624 Gordon Rd Ste L Wilmington, NC 28411 Phone: 910-239-3085 Contact: Gary Ketelsen

Email: gary.ketelsen@optimumlowvoltagellc.net

PAE Consulting Engineers

522 SW 5th Avenue Suite 1500 Portland, OR 97204-2116 Phone: 503-542-0541

Contact: Dan Somlea

Email: dan.somlea@pae-engineers.com

Panacea Group

W746 County Road Vv Seymour, WI 54165 Phone: 262-343-1966

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Email: peterthomas.ptc@gmail.com

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Contact: Philip Sconyo, P.E., President

Email: phiscon@snip.net

Poole Fire Protection, Inc.

19910 W 161 Street Olathe, KS 60062-2700 Phone: 913-747-2050 Contact: Jack Poole, PE Email: jpoole@poolefire.com

Princeton University/Office of Design & Construction

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Professional Engineers Ontario

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Professional Fire Protection Design, LLC

11 Eva Cir Vernon, CT 06066 Phone: 860-617-1515 Contact: Ron Roark, Owner

Services

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Project Management and Engineering Consultancy

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Phone: +297-584-3223 Contact: Meier Maduro

Email: mmaduro@pmearuba.com

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Contact: David Tran

Email: dtran@prosperous-law.com

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Email: kenny.cieslak@providence.org

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Email: ethomas@pyralis.org

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Roseberg Forest Products

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PO Box 709 Warren, MA 01083 Phone: 413-436-5500 FAX: 413-436-5563

Contact: Carl Koslowski, President Email: cck@rybak-fpc.com

Website:

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Email: sam@seztechfiredesign.com Contact: Sezgin Mafizer, Owner

Website:

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Email edl@summitfptech.com

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Superiorland Electronics, Inc.

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2976 Palmarie Dr.

Email: msalmi@chartermi.net

Sylvester Design Consultants

Poland, OH 44514 Phone: 330-757-9259 Fax: 330-757-9259 Contact: John Sylvester, V.P. Email: john@sylvesterdesign.com Services: Fire Protection Design Services

Website

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US Fire Service LLC

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United Fire

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University of Alaska Fairbanks

PO Box 757380 Fairbanks, AK 99775 Phone: 907-474-2491

Contact: Ben Johnson, Manager Email: bpjohnson2@alaska.edu



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WSP USA

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Email: tyler.mobley@wspgroup.com

Young Fire Protection, Inc.

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The Chemistry of Corrosion Control and Benefits of Glycerin-based Antifreeze

by Manny Silva, Chief Engineer, Fire Suppression Products, Johnson Controls

ne commonly known advantage of using an antifreeze solution in a wet pipe fire sprinkler system is response time. A wet pipe system responds much faster than a dry system since the antifreeze solution is discharged immediately after a sprinkler is activated.

Certain antifreeze solutions, specifically glycerine-based solutions, can provide additional benefits such as corrosion control. Corrosion is an issue that has long plagued the fire protection industry. Corrosion of pipes, valves, sprinklers, and other components used in a fire sprinkler system has been a costly problem, not only because the systems themselves need to be replaced if corrosion occurs, but because leaking systems can cause property damage. When an application calls for freeze protection, contractors must evaluate cost, corrosion risk, and system response time as factors in the search for the right solution.

Propylene glycol and glycerin are the two freeze protection components used in antifreeze solutions. The maximum percentages of these components in a solution are limited by NFPA 13, NFPA 13D, NFPA 13R, and NFPA 25 as a result of combustibility testing. While both offer advantages over dry pipe fire protection systems, corrosion can be a drawback to antifreeze, especially with propylene glycol-based solutions. Additionally, it should be noted that NFPA 13 requires the use of a listed antifreeze in all new systems and NFPA 25 requires that existing systems be replaced with listed antifreeze by 2022. As of the writing of this paper, there is only one listed antifreeze product on the market: TYCO® LFP® Antifreeze, a glycerin-based solution from Johnson Controls.

In addition to the cost benefit of NFPA allowing glycerin-based antifreeze solutions to be used in CPVC fire sprinkler systems, glycerin offers the significant advantage of lower corrosion risk attributed to its electrical conductivity and pH stability.

Keeping Electrical Conductivity Low

In any metallic wet pipe sprinkler system, corrosion can occur between the different types of metals that make up the system. Corrosion in fire sprinkler system piping or components occurs due to an electrochemical cell forming and electrons (a type of subatomic particle) being transferred from the surface of one metal to the surface of another. The loss of electrons causes the metal to deteriorate. Over time, this deterioration can reach a point where

the metal can no longer sustain its integrity.

The rate at which fire sprinkler systems corrode through the formation of electrochemical cells is directly related to the electrical conductivity level of what fills the system — or the ability of electrical currents to flow through a material. The lower the electrical conductivity of the fluid in the system, the slower the system will corrode and the higher the electrical conductivity, the faster the system will corrode. UL 2901 requires the corrosion rate of a listed antifreeze solution to not exceed 0.025 mm/yr.

Electrical conductivity is determined by the level of salt in the liquid, which is measured in microsiemens per centimeter (μS/cm). Propylene glycol-based antifreeze solutions typically have a much higher electrical conductivity than glycerin-based antifreeze solutions, with a range of about 1800-2500μS/cm. As a result, using propylene glycol- based antifreeze in a fire protection system could increase the rate of corrosion versus using a glycerin-based antifreeze.

UL 2901 requires the conductivity of listed antifreeze solutions to not exceed 2200 microSiemens/cm. The LFP® Antifreeze formulation has an electrical conductivity value ranging from 1000-1400 $\mu\text{S/cm}$, lower than some municipal water providers in the United States. As a reference, fresh water is typically a range of 50-1500 $\mu\text{S/cm}$). This means that using LFP® Antifreeze in a wet pipe sprinkler system could potentially decrease the corrosion rate of the system versus a system filled with water, depending on the municipality water supply.

Electrical Conductivity Levels of Antifreeze Solutions vs. Water

SOLUTION	ELECTRICAL CONDUCTIVITY
Propylene antifreeze (glycol-based)	1800-2500 μS/cm
LFP® antifreeze (glycerin- based)	1000-1400 μS/cm
Fresh water	0-1500 μS/cm
Sea water	50,000 μS/cm

continued on page 69

continued from page 68

Maintaining pH Levels

The measure of acidity—or pH level—of an antifreeze solution is another method through which corrosion may occur in antifreeze systems. Propylene glycol-based antifreeze solutions will chemically react after extended exposure to heat and oxygen, both abundantly present in many fire protection systems. These reactions cause the propylene glycol to form acidic by-products which lowers the pH of the antifreeze solution. The reduction in pH can cause acidic corrosion which can rapidly deteriorate a metal fire sprinkler system.

LFP® Antifreeze has been formulated using pH buffers to maintain the stability of the solution throughout the life of the product. This has been demonstrated by UL accelerated life testing in which

the antifreeze was subject to extreme temperatures for an extended period of time. The LFP® Antifreeze solution did not form any acidic by-products and maintained its pH level throughout the duration of the test.

In the development of LFP® Antifreeze, many chemical properties and formulations were considered and tested. With corrosion being a major pain point related to antifreeze systems, lowering corrosion risk was a key factor in determining the final formulation. The use of glycerin allowed for a solution that meets UL Listing requirements while providing a high-quality product that can reduce corrosion risk and associated maintenance issues.

For more information on UL Listed antifreeze solutions, go to: http://www.tyco-fire.com/LFP. •



MFSM's Member Takeover Issue Request for Submissions

Our **Sept/Oct issue** is the annual Member Takeover Issue Help us continue what has become a great NFSA tradition! We're taking submissions now.

Deadline July 1st.

email submissions to:

NFSM Editor Joanne Genadio at genadio@nfsa.org

Advancements in Training

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

ecent advancements in training are apparent throughout NFSA and its members. Whether it is the new Training Room at NFSA Headquarters, a side-by-side burn trailer, or the new valve trailer which will begin touring the nation in the near future, there are plenty of advancements being made with respect to training. Hands-on, visual training is key to cater to the various learning styles of our members. This is most notable in the resent refurbishment of the 8-riser valve lab and updated training program developed for the Maryland Fire and Rescue Institute (MFRI).

The MFRI valve lab, sponsored by the University of Maryland (UMD), the Office of the Maryland State Fire Marshal (OMSFM), and the Capital Region Fire Sprinkler Association (CRFSA) incorporates eight separate sprinkler and foam-water risers to provide a fire protection playground for UMD as well as MFRI students and local AHJ's and inspectors to get familiar with many systems that would be present in their day to day operations. The valve lab specifically includes two dry pipe valves, two preaction valves

(single/double), a wet shotgun riser, a deluge valve, a foam system, and a standpipe riser featuring Class I, Class II, and Class III connections and a floor control assembly tied in.

The lab is configured to include risers for different system types, and the program details the basics for each system with the installation requirements provided in the classroom training along with the operational training of each system during the hands-on portion of the class. The remainder of this article will discuss the basic curriculum associated this the MFRI Valve Lab.

Risers 1 and **2** (*next page*) contain dry pipe valves (Tyco DPV-1 and Reliable Model EX). When reviewing the dry pipe valves, it is important to note that their intended use is for areas subject to freezing that cannot be reliably maintained above 40°F. With pipes being filled with air under pressure, there is no risk of freezing as long as the system is drained adequately each time the valve trips. While the protection area of the sprinklers may be exposed to colder temperatures, NFPA 13 requires the valve to be installed

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OREAL COUPMON LICENS - THE PRINCIPLE RISER ASSUMANTS

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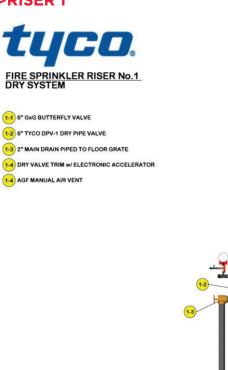
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>RISER 1



>RISER 2



FIRE SPRINKLER RISER No. 2 DRY SYSTEM

- 2-1 6" GxG BUTTERFLY VALVE
- 2-2 6" RELIABLE MODEL EX LOW PRESSURE DRY VALVE
- 2-3 2" MAIN DRAIN PIPED TO FLOOR GRATE
- 2-4 DRY VALVE TRIM w/ HYDRAULIC ACCELERATOR



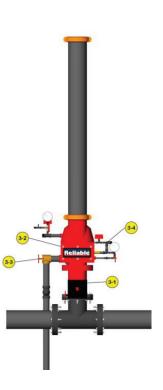
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>RISER 3



FIRE SPRINKLER RISER No. 3 SINGLE INTERLOCK PREACTION SYSTEM

- 3-1) 6" GxG BUTTERFLY VALVE
- 3-2 RELIABLE MODEL DDX SINGLE INTERLOCK PREACTION VALVE
- 3-3) 2" MAIN DRAIN PIPED TO FLOOR GRATE
- 3-4 SINGLE INTERLOCK PREACTION TRIM



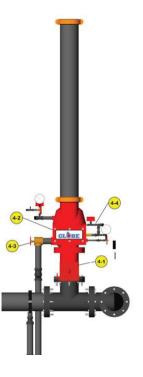
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PREACTION SYSTEM

- 4-1) 6" GxG BUTTERFLY VALVE
- 6" GLOBE RCW
 DOUBLE INTERLOCK PREACTION VALVE
- 4-3 2" MAIN DRAIN PIPED TO FLOOR GRATE
- 44 DOUBLE INTERLOCK PREACTION TRIM



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and maintained in a heated space. This comes without exception. Heat trace or other insulation methods are not permitted in lieu of a heated enclosure for the valve(s).

Risers 3 and 4 (see previous page) are installed with two types of preaction valves. There is a single interlock Reliable Model DDX preaction valve in Riser 3 and a double interlock Globe RCW preaction valve in Riser 4. It is key to note the differences between the actuation of the two valves. For the single interlock, the system admits water to the sprinkler piping upon operation of detection devices pre-priming the system piping prior to the actuation of a sprinkler. For double interlock, in addition to the activation of a detection device, a sprinkler must also operate to release water into the system. This imposes a lag in the delivery of water to the open sprinkler due to water transit. This is why a 30% increase in design area is required – similar to a dry pipe system.

There is often confusion with cross-zoned detection as it relates to single or double interlock preaction systems. Cross-zones consist of two independently spaced detection arrangements tied into the same control panel. Upon actuation of at least one detector in each zone, the control panel will send a signal to open a solenoid valve, releasing pressure on the preaction valve's diaphragm, allowing water to flow into the system in a single interlock system. For a double interlock, a sprinkler needs to open too. Each detection zone must completely cover the protected space per NFPA 72. Even though two devices are actuating, this only constitutes a single action when determining if the preaction valve will release.

Preaction systems can be an effective tool in the fire sprinkler industry, but only if it is used for the right application. Just because a system has more bells and whistles than another does not necessarily mean that it provides a greater level of protection. Additional mechanical and electrical components increase the points of failure and decrease reliability of the system.

Wet sprinkler systems allow the option to install either an alarm valve or a shotgun riser assembly. **Riser 5** (page opposite) utilizes a shotgun riser consisting of a control valve, check valve, and riser manifold connecting to flow switch and main drain. In this instance, the riser manifold is installed upstream of the flow switch, so an additional inspector's test connection would be required to be installed downstream of the flow switch for a system compliant with the installation standards. As with most valve labs, it is difficult to comply with both the standard and the needs for training. Deviations from the standard are nearly impossible to avoid in hands on training labs; however, the differences can become a teaching point during the training classes.

A deluge system is installed on **Riser 6**. The Tyco DV5 Deluge Valve can be used to supply an array of open nozzles to protect a high hazard or adjacent structure from exposure to a high hazard. With the water being held back by the deluge valve, activation occurs in a similar manner to the preaction valves where automatic detectors (flame, heat, or smoke) installed in the protected area operate to send a signal to the fire alarm control panel which in turn will send a signal to the solenoid valve on the deluge valve,

relieving pressure on the diaphragm and actuating the deluge valve.

Unique to this valve lab is the Foam System installed in **Riser** 7. The Viking Deluge Valve and Proportioner can be used to supply foam-water sprinklers per NFPA 16, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems. Utilizing a low expansion foam, these systems are useful in protecting higher hazard commodities such as those specified and prescribed in NFPA 30, Flammable and Combustible Liquids Code and NFPA 409, Standard on Aircraft Hangars. Systems utilizing medium- or high-expansion foam should be referred to NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam.

Riser 8 was furnished by Potter Roemer and contains Class I, Class II, and a combined Class III hose connections. As defined by NFPA 14, Standard for the Installation of Standpipe and Hose Systems, a Class I connection contains 2-1/2 in. hose valves for fire department use; a Class II connection contains a 1-1/2 in. hose station for use by the fire department or a trained fire brigade; and a Class III connection contains both a 2-1/2 in. hose valve and a 1-1/2 in. hose station. A Class III connection can be accomplished in two ways, either by installing a 2-1/2 in. hose valve and a separate 1-1/2 in. hose station or by installing a 2-1/2 in. hose valve with a 2-1/2 x 1-1/2 in. reducer. Either method is acceptable. Other key features to note on this riser are the floor control assembly, corrosion monitor, and the automatic air vent. The addition of the control valve, drain, and flow switch in the floor control assembly creates a separate sprinkler system as defined in NFPA 13-2019:

3.3.206* Sprinkler System. A system, commonly activated by heat from a fire and discharges water over the fire area, that consists of an integrated network of piping designed in accordance with fire protection engineering standards that includes a water supply source, a water control valve, a waterflow alarm, and a drain. The portion of the sprinkler system above ground is a network of specifically sized or hydraulically designed piping installed in a building, structure, or area, generally overhead, and to which sprinklers are attached in a systematic pattern.

This definition, added in the 2013 edition, had great significance when applying NFPA 25 inspection requirements. As an example, each floor of a high-rise structure would be considered an individual sprinkler system in the eyes of the ITM standard and would require the prescribed tests on each floor. Of course, there are provisions to alleviate some of those requirements, but that is a discussion for another article.

As a whole, the MFRI Valve Lab is a great tool for contractors, AHJ's and ITM personnel. After years of stagnant progress, the valve lab had its "Grand Reopening" on February 12th of this year with a CRFSA sponsored "Developed for the Inspector" training series. Over 70 local AHJs and inspectors came out to hear presentations on the valve lab and the basic components of sprinkler systems. In addition, a number of representatives from local contractors attended the event. The participants were then able to apply and enhance their knowledge with live, hands-on demonstrations showing how the systems operate and how the valves are reset.

>RISER 5



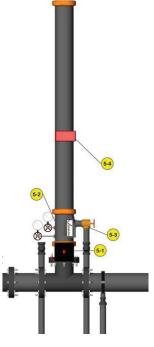
FIRE SPRINKLER RISER No. 5 WET SYSTEM

5-1 6" GxG BUTTERFLY VALVE

5-2 6" VICTAULIC 717R RISER CHECK VALVE

5-3) 2" MAIN DRAIN PIPED TO FLOOR GRATE

5-4 6" WATERFLOW DETECTOR



>RISER 6



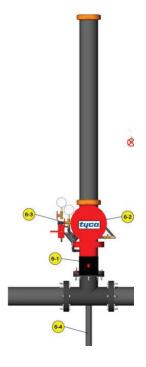
FIRE SPRINKLER RISER No. 6 DELUGE SYSTEM

6-1 6" GxG BUTTERFLY VALVE

6-2 6" TYCO DV5 DELUGE VALVE

6-3 DELUGE VALVE TRIM

6-4 2" MAIN DRAIN PIPED TO FLOOR GRATE



https://www.victaulic.com/ https://www.tyco-fire.com/

>RISER 7



FIRE SPRINKLER RISER No. 7 FOAM SYSTEM

7-1 6" GxG BUTTERFLY VALVE

7-2 6x2 GROOVED CONCENTRIC REDUCER

7-3 2" DELUGE VALVE w/ TRIM

7-4 2" PROPORTIONING DEVICE - RATIO CONTROLLER

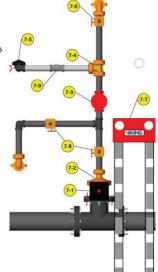
7-5 STRAIGHT THRU CONCENTRATE CONTROL VALVE (CCV)

7-6 SYSTEM ISOLATION VALVE

7-7 FOAM SYSTEM CONTROL PANEL

7-8 2" BUTTERBALL CONTROL VALVE

7-9 2" CHECK VALVE



>RISER 8



FIRE SPRINKLER RISER No. 8 STANDPIPE SYSTEM

8-1 6" GxG BUTTERFLY VALVE

8-2) 21/2" POLISHED CHROME FIRE HOSE VALVE

8-3 21/2" PRESSURE REDUCING HOSE VALVE

8-4 21/2" HOSE RACK

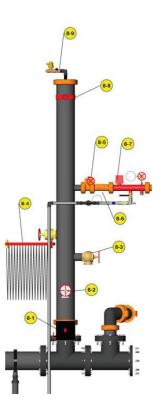
8-5 2" BUTTERFLY CONTROL VALVE

8-6 2" CHECK VALVE

8-7) 2" AGF COMMERCIAL MANIFOLD W/ TEST AND DRAIN

8-8 AGF CORROSION MONITOR

8-9 AGF AUTOMATIC AIR VENT



https://www.agfmanufacturing.com/

https://www.vikinggroupinc.com/

10 Myths About Fire Sprinklers —and How to Refute Them

by Lainey Liotta, Lubrizol Advanced Materials

very day, fire sprinkler systems save lives, prevent injuries and protect property by controlling and extinguishing fires before they can spread. Unfortunately, these life-saving sprinkler systems are not as widely used as they should be because outdated, inaccurate information causes many builders, homeowners and commercial building managers to resist installing them.

Here are 10 common myths and misconceptions about sprinkler systems and tips on how to share the facts to broaden acceptance.

1. Fires are rare, so a sprinkler system isn't necessary.

In fact, fire strikes all too often. A May 2019 FEMA report tells us that fire departments in the United States respond to more than 370,000 residential fires annually. These have resulted in more than 2,600 deaths and nearly 11,000 injuries. Financial losses equate to \$7.8 billion. A residential fire sprinkler system is like having a firefighter on duty 24 hours a day. In fact, the risk of dying in a home fire is 85 percent lower if sprinklers are present, according to NFPA.

2. Smoke alarms provide enough protection.

Smoke alarms can deliver an early warning, but fires spread rapidly and can turn deadly in just two minutes. Senior citizens, the physically challenged, children and infants may not have time to move to safety. By contrast, sprinklers control the fire early and ensure safety even if residents have not heard or responded to the

Too often, smoke alarms are inoperable because the batteries or alarms were not replaced on time or were removed by the occupant. Smoke alarms must be replaced after 8-10 years. Newer smoke alarms come with built-in, no-replace batteries, but they still have a limited lifespan after which the entire detector should be replaced.

3. A sprinkler system can be activated prematurely from everyday household heat/smoke sources such as burning toast, candle smoke, steam or cooking vapors.

Ordinary household activities such as cooking do not emit enough heat to activate a sprinkler head. Fire sprinklers are only activated by heat in excess of 135 degrees Fahrenheit for ordinary temperature rated sprinklers and up to 225 degrees Fahrenheit for intermediate temperature rated sprinklers. To alleviate these concerns, contractors may want to install intermediate temperature

sprinklers throughout as permitted by all sprinkler installation standards.

4. When a fire occurs, every sprinkler will activate.

Forget what you've seen in the movies – a fire does not cause all the sprinklers in a building to go off at the same time. Each sprinkler protects the area below it, so heat from a fire activates only those sprinklers nearest the flame. The vast majority of residential fires are contained with only one sprinkler.

Sprinklers deliver less water than a fire hose, which further limits damage. The property loss in a sprinklered home fire is a small fraction of the typical loss in an unsprinklered home fire. In addition, an item damaged by fire is typically not salvageable, while a water-damaged item may often be repaired or restored

5. A sprinkler system is costly to install and makes selling a home or building more difficult.

In fact, a fire sprinkler system in a new home adds about 1-2 percent of the total construction cost, according to the NFPA. This modest investment, that can be paid over the life of a mortgage, dramatically improves safety.

It's an investment that can pay off when a property is sold. A Johns Hopkins study reveals that 75 percent of homeowners said they were more likely to buy a home with sprinklers.

6. Sprinkler systems often go off accidentally and cause water damage.

Sprinkler mishaps are generally less likely and less severe than home plumbing system problems. Just as with any mechanical system, occasional maintenance is required to ensure that a sprinkler system continues to function properly. Depending on the quality of the local water supply, some pipe and fitting materials need more regular service and maintenance than others. The system designer and/or sprinkler contractor is the best resource for selecting the right materials for a specific installation.

7. There's no way to install a sprinkler system in an existing home.

Fire sprinkler systems can be retrofitted into just about any home or commercial building. CPVC offers significant advantages for retrofits, as it fits into tighter spaces more quickly, easily and quietly. While a retrofit is somewhat more expensive than installing in a new building, it's a great way to improve safety.





8. If I'm not required by law to have a fire sprinkler system in my home, there is no reason I should consider installing one.

Installing a fire sprinkler system doesn't always have to be about keeping up with fire codes and standards. There's nothing wrong with going above and beyond those standards to protect people and property, especially when it's your family.

9. CPVC will melt in a fire, so it is not the ideal material choice for a fire protection system.

It's a fact – BlazeMaster CPVC does not melt in a fire. A major advantage of CPVC over other thermoplastics is its resistance to heat and fire. It ensures that sprinklers will activate properly because it holds its structural integrity and maintains internal water pressure when directly exposed to a flame.

Some brands of CPVC form a charring layer on the pipe's outer diameter when exposed to flame. That layer then acts as a thermal barrier that reduces heat conduction. Water flowing within the pipe cools the pipe's inner diameter surface and prevents it from burning through.

CPVC also limits smoke generation and, because it does not melt as other plastics do, will not produce flaming droplets that may cause a fire to spread.

Other construction materials that come into contact with CPVC will cause it to fail.

It's a critical issue – the CPVC in a sprinkler system must be chemically compatible with ancillary products such as thread sealants and system accessories. To ensure long-term reliability, all components should go through a well-designed process for formulation screening and physical testing. For instance, BlazeMaster's FBCTM System Compatible Program requires manufacturers to submit products for third-party testing and have their facilities audited. To eliminate guesswork when planning a sprinkler system, the listing of approved products that are compatible with BlazeMaster CPVC is available free online.

Yes, a fire sprinkler system is an added expense. It's also an investment in the lives and safety of loved ones, tenants, neighbors and first responders.•

Lainey Liotta, Fire Protection Market Segment Manager at Lubrizol Advanced Materials, has more than five years' experience in the fire protection industry. She has worked at Tyco Fire Protection Products (Johnson Controls) – a BlazeMaster CPVC manufacturing partner – and then in HVAC-R before joining Lubrizol in 2019. Lainey is passionate about her role in advancing the awareness and benefits of fire sprinkler systems across all residential, multifamily and commercial market segments. Lainey is a regular contributor to the BlazeMaster® Fire Protection Systems blog.





Get Ready for Our Member Takeover Issue —An NFSA Tradition!

The September/October issue of NFSM will be our third annual member takeover issue. This wildly popular issue hands the reigns over to our members. You choose the topics, you send in the photos, you write the text. Never mind the old

adage that your name should only appear in print when you are born and when you die! We want you to have the opportunity to show us what you've got, and to share it with your fellow NFSA members.

Start dusting off that old Smith-Corona and sharpen your pencils. Don't wait! We're accepting submissions now. Our goal is to surpass the submissions received for the last two issues, and we need you to make that happen. As Vickie Pritchett is fond of saying, we are family! Take this opportunity to share and let's get to know each other better. Together we can accomplish great things. Getting up close and personal with fellow members helps to allow us to grow together and remain strong, and increases our ability to move the fire sprinkler industry forward.

Past issues have focused on topics ranging from why members chose to work in the industry, to great recipes for cheesecake and mac and cheese. Let's continue what's become a great tradition. We know you love reading this issue. Now it's time for you to contribute. Did you have an interesting project you've worked on this past year? Do you have an exceptionally great sprinkler save you want to share? Is there an employee in your organization that's gone above and beyond that should be recognized? The possibilities are endless and the chance to showcase your news only comes around once a year.

The NFSM Member Takeover issue is all about supporting our members. We cheer on your successes, sympathize with your heartaches and work to create a bond that drive an industry like nothing else. Have you contributed before? Wasn't it a great feeling to see your story and your name in print? Please consider another contribution this year. We know there's plenty of Hemingways and Dickens among us. Use your talents and take a break from your day-to-day! Feel like writing isn't your forte? Every article is proofread and edited to make it flow like champagne from a Cristal bottle and is sent back to the author for final approval.

Submissions for the issue are due on June 25th. Writing guidelines are available on the last page of each issue of NFSM. Any photos must be sent as separate files. Please do not embed them in the document. Submissions can be as long as a feature article, or as easy as a photo and a caption. There's a way all members can contribute and we look forward to seeing what you've been up to this past year, and what you have coming up on the horizon.

Send questions and submissions to me at genadio@nfsa.org, and let's get this thing rolling! Last year's Member Takeover issue won the prestigious MarCom Gold Award for Excellence, and I know we can do it again in 2020.

Thank you to those who take the time to make our association, and our award-winning magazine, the best of the best of the fire sprinkler industry.



Concealment Systems for Fire Sprinkler Piping, Plumbing Lines Hydronics, HVAC, Cable and **Conduit**

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NFSA Contractor Members -It's Your Turn to Shine!

In an effort to increase our contractor members' visibility in **NFSM Magazine**, we're looking to showcase your work that dovetails with the themes of our remaining issues. Got some great photos of the work you do? Able to shoot us a quick description? We'd love to feature our members' work on the cover of each issue, as well as within. Themes for the issues follow.

Send materials to NFSM editor Joanne Genadio at genadio@nfsa.org.

Please do not embed photos into a document. We need hi-rez images sent as attachments to an email. For the cover shot, we're looking for portrait-oriented photos.

Any questions, shoot Joanne an email and she'll get right back to you. We can't wait to see what you've been up to!

JUL/AUG

Storage and Shipping

Deadline May 15th

SEPT/OCT

Member Takeover-your choice!

Deadline July 15th

NOV/DEC

Sprinkler Acceptance Initiatives -What Are You Doing to Advance the Industry?

Deadline September 16th











HQ NEWS

Special send off for Jim "JD" Dalton held March 2nd in Washington, D.C.

It was an honor to wrap up a day of meetings in our Nation's Capital with a gathering for JD at his favorite watering hole, the Dubliner Pub. Many of you know that JD always referred to the Dubliner as his "office"in Washington, D.C.

We were fortunate to have Congressman Steny Hoyer and Senator Jon Tester stop by to wish JD well. Others present included Bill Webb, Ron Siarnicki, Vickie Pritchett, Jenna Pritchett, Kathy Dalton, Stephen Tramel, Sara Yerkes, Karl Fippinger, Seth Statler, Meghan Housewright, and Michaela Campbell.

Congratulations JD! 60 years in the fire service, countless differences made and lives saved! We appreciate your service to the fire sprinkler industry and wish you a happy retirement.



Side-by-Side Burn **Demo at Alabama State Capitol** Witnessed by 75 Legislators

On February 26th, NFSA Field Operations teammates were part of a live burn demonstration at the Alabama State Capitol sharing the effectiveness of fire sprinklers and the consequences of not including them in the adoption of code. The highly successful burn, conducted by the Alabama Fire College, was witnessed by 75 members of the Alabama State Legislature. We received some great media coverage of this textbook burn!









IFSA Names Paul Sincaglia as Managing Director

Following an exhaustive search, the IFSA has announced that Paul Sincaglia, P.E. became the organization's first full-time Managing Director effective March 1, 2020. A fire protection engineering graduate of Worcester Polytechnic Institute, Paul brings a broad range of experience to the IFSA. Most recently he has served as



Director of Industrial, Fire and Life Safety for Osborn Engineering in Cleveland, Ohio. Prior to that he was the Vice President of Engineering for Efectis USA, where he launched fire protection engineering and code consulting services in North America and supported Efectis' business units in Europe and the Middle East.

Altogether, Paul has over 25 years of experience as a managing design professional, fire ground officer, and code enforcement official. He is well aware of the obstacles in areas where the regulatory infrastructure, limited workforce, and cultural norms have not yet accepted the adoption of water-based suppression as the best and most reliable means of improving fire-related life safety and property protection.

Asked to comment on his appointment, Paul offered the following: "I recognize that this position is a one-of-a kind opportunity to lead an organization that fosters and grows the use of water based fire protection technologies across the world. Based on my past domestic and international work experience, I know that formal and informal education, the presentation of technical research, and good faith negotiations with the design, construction, insurance and regulatory communities are the stepping stones to wider recognition and adoption of the frameworks that promote the use of water based fire protection."

Russ Fleming, who has served as a part-time IFSA Managing Director since stepping down in 2015 from the presidency of National Fire Sprinkler Association, will continue for a year as part-time Technical Director and Secretary to assist with the transition. He welcomed Paul to the organization: "Having served on the search committee, I am very excited that Paul has agreed to take over the helm of the IFSA. He brings an enormous amount of talent and experience to the position, and the IFSA will benefit greatly from taking the important step of hiring a full-time Managing Director to lead the organization into the future."

Information on the IFSA can be found at www.ifsa.global, and Paul can be reached at psincaglia@ifsa.global

Reliable Automatic Sprinkler Co., Inc. **Announces New** Personnel

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

Rebecca McIntyre has been promoted to Regional Sales Manager of Region 17, including Florida, Puerto Rico, the Caribbean and South America. Reporting

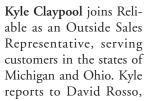


to Territory Director Dan Merritt, Ms. McIntyre succeeds Bob Poulton in this position.

Reliable thanks **Bob Poulton** for his years of service and wishes him a happy retirement. Ms. McIntyre has over fourteen years' outside sales experience with Reliable and earned a BS degree in Computer Information Systems from Walsh College in Troy, Michigan.

Daniel De Dominic joins Reliable as an Outside Sales Representative in the Northeast, reporting to Regional Sales Manager Ralph Fuchs. Dan brings over 20 years' experience in the fire sprinkler industry, where he has held positions in project management, regional sales, and national accounts management. He holds a BBA in Business Administration from Temple

University.



Midwest Regional Sales Manager.

Kyle has over 15 years of experience in the fire sprinkler industry, previously representing his family's 3rd generation of fire protection contractors. Mr. Claypool completed a 4-year fire protection trade program at Grand Rapids Community College, after which he began his career as an apprentice, working his way up to Field Foreman. Kyle has also held the positions of Service Technician and Service Manager.

Erin Holleran is welcomed as the new Sales Pricing Manager for the Americas. A native of Binghamton, New York, Erin attended Le Moyne College

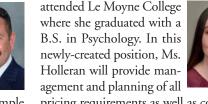
pricing requirements as well as compiling reports for specific products. Erin reports to Kevin T. Fee Jr., Vice President of Sales for the Americas.

Clint Williamson joins Reliable as the Western Regional Sales Manager, reporting to Territory Sales Director Mark Connor. Clint brings 10 years' outside sales experience in in-



dustrial products to Reliable. Most recently, Clint specialized in growing emerging markets with SouthTek Systems nitrogen generators. Mr. Williamson earned a BA in Journalism and Public Relations from the Indiana University of Pennsylvania.

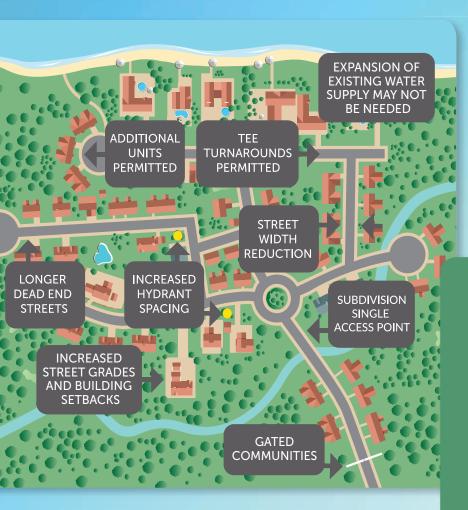
For additional information and Reliable news visit Reliablesprinkler.com/news/. For information on career opportunities at Reliable visit Reliablesprinkler.com/careers.



These Incentives

Improve Community Safety and Provide Developer Savings

In exchange for installing home fire sprinklers in entire developments, authorities having jurisdiction can offer locally negotiated trade-ups as incentives to developers. These incentives may include:



- Street-Width Reduction
- Longer Dead-End Streets
- Tee Turnarounds Permitted
- Increased Street Grades and Building Setbacks
- **Additional Units Permitted**
- Expansion of Existing Water Supply May
 Not Be Needed
- Increased Hydrant Spacing
- **Subdivision Single Access Point**
- Gated Communities

HOME FIRE SPRINKLERS PROTECT THE ENVIRONMENT*

Reduce greenhouse gas emissions by 98%

Reduce fire damage by up to 97%

Reduce water usage to fight a home fire by as much as 91%

Reduce water pollution

* Environmental Impact of Automatic Fire Sprinklers, FM Global, 2010





For more information about home fire sprinker incentives, including case studies, video testimonials, fact sheets and NFPA 13D information, visit our website at HomeFireSprinkler.org/crr.

Home Fire Sprinklers: A Win-Win for Your Entire Community

Home fire sprinkler incentives can reduce construction costs, while protecting residents and firefighters, and help to protect the environment.

©2019 Home Fire Sprinkler Coalition

CHAPTERS in ACTION

Los Angeles Chapter Awards

Stuart Cook of Potter-Roemer, Los Angeles Chapter Treasurer since 1999, and **Don Becka** of Qualco Fire Protection, Chapter Chair since 1999, accept 20-year Awards of Recognition for their service.



l. to r.: NFSA Regional Manager Bruce Lecair, Chair Kent Mezaros, Stuart Cook, Don Becka, Board Member Peter Hulin, President Shane Ray

JCI's Kacee Paige Talks Antifreeze at Empire Chapter Meeting

NFSA's Empire Chapter held it's first meeting of 2020 at Spins Bowl in Poughkeepsie. Members at the well-attended meeting discussed plans for 2020, contractor and fitter licensure, ways to increase attendance, possible partnerships with SFPE and ASPE, and ways to increase fire sprinkler education to both code officials and the general public in New York State.





JCI's Kacee Paige Talks Antifreeze Rules with NFSA Empire Chapter. Members helping members.



After the meeting, attendees were able to wind down with a little ax throwing competition.

PenJerDel Hosts Joint Meeting with AFSA AND SFPE

The NFSA PenJerDel Chapter worked alongside the AFSA Schuylkill Chapter and the SFPE Delaware Valley Chapter to conduct a joint meeting this past January. The meeting had a fantastic turnout and featured contractors, suppliers, and fire protection engineers from all over the Delaware Valley. In attendance were the leadership teams from each association, including AFSA Chair Ted Wills and NFSA President Shane Ray.

The meeting brought about the opportunity for many to share their personal experiences with professionals they may not have met before that night, resulting in some fresh takes and solutions to common issues within the industry. Topics of discussion included recent technological developments and new products, concerns regarding certification and training in the Commonwealth, high-rise retrofits, and federal tax incentives for business owners.

The NFSA PenJerDel Chapter was honored to coordinate this joint meeting and would like to thank all those who attended, especially the leadership teams of each respective association. It is the Chapter's hope that a stronger working relationship with these associations will lead to a stronger industry overall.

Wisconsin Chapter Represents NFSA at MBA Home Building & Remodeling Show

This was the fourth year that we have been able to have an exhibit and booth space at the MBA show. As part of the Wisconsin Fire Sprinkler Coalition, the NFSA Wisconsin Chapter helped with booth construction, exhibit preparation, exhibit items and staffing. Staffing was with State Coordinator Marty King and Assistant State Coordinator Mike Gundersen.

Although bad weather took a toll on attendance, we had about 200 people stop and ask questions about fire protection in the home. Questions ranged from smoke alarms to carbon monoxide to fire sprinklers.

Surprising was the number of younger couples asking questions continued on page 82

CHAPTERS IN ACTION

continued from page 81

about protecting their new home. Many of the questions started with how the fire sprinkler system works rather than what is the cost



We continued to reach out to home builders to discuss the advantages of offering fire sprinkler systems to new homeowners. We are pleased to partner with Source 1 Solutions – Architecture and Design and Dimensions, Inc - Design Build Remodel as part of the Step Beyond Green into Healthy Showcase exhibit with six other exhibitors to create an exhibit that showcases all building features both on finished and rough construction.

We plan on partnering with them for the 2021 Annual Home Show and looking to expand exhibit space to incorporate industry advertising created by NFSA.

South Central Region NFSA Texas!

NFSA North Texas Chapter has changed its name and boundaries from North TX to "NFSA Texas". NFSA Texas Chapter would like you to meet their new 2020-2021 Texas Chapter Board!



From Left to Right: John Pecot, Crystal Reed, John Sayre, Tate Hitzeman, Aaron Wilson, Tyler Mobley, Danna Wells, Brad Anderson. To be added in future board photo: Conor Kauffman, Daniel Merritt, Dale Payne

CHAIR

Tate Hitzeman, Potter Electric, South Central Sales Manager 7 years in the Fire Sprinkler Industry

VICE CHAIR

Conor Kauffman, Kauffman Company, Vice President 18 years in the Fire Sprinkler Industry

TREASURER

Dan Merritt, Reliable Automatic Fire Sprinkler, Sales Director 18 years in the Fire Sprinkler Industry

SECRETARY

David Welcher, Automatic Sprinkler of Texas, Project Manager 33 years in the Fire Sprinkler Industry

PAST CHAIR

John Pecot, JCI, Fire Protection Design Manager-Industrial & International Operations

41 years in the Fire Sprinkler Industry

OFFICERS AT LARGE

Aaron Wilson, Ferguson Fire & Fabrication, Outside Sales Associate

3.5 years in the Fire Sprinkler Industry

Brad Anderson, Firetron Houston, Sprinkler Inspections Manager

19 years in the Fire Sprinkler Industry

Crystal Reed – Ferguson & Fabrication, Outside Sales Associate 6.5 years in the Fire Sprinkler Industry

Dale Payne, Northstar Fire Protection of Texas, Branch Manager

17.5 years in the Fire Sprinkler Industry

Danna Wells - Viking SupplyNet, Sales Manager 6 years in the Fire Sprinkler Industry

John Sayre, JFS, Fire Protection Engineer 50 years in the Fire Sprinkler Industry

Tyler Mobley, WSP USA, Senior Fire Protection Engineer 10 years in the Fire Sprinkler Industry

NFSA TEXAS Board Members assist Texas fire sprinkler industry in the following ways:

- 1 Board Members represent the Texas Chapter at the annual National NFSA Conference.
- 2 Board Members help to create meetings that improve the fire sprinkler industry.



- 3 Board Members create networking opportunities.
- 4 Board Member help to reduce fire through industry and public awareness of fire sprinklers.
- 5 Board members steer the Chapter's planning and initiatives.
- 6 Board members oversee the Chapter activities and business issues.
- 7 Board members monitor and develop legislative positions.

Northwest Region Chapter News

NFSA's Puget Sound and Columbia-Willamette chapters hosted Mark Mannex, PE, FPE of FM Global in April. Mr. Mannex discussed the electrical power supplies for fire pumps, particularly apparent conflicts between NEC and NFPA 20.

In June, both chapters will host the Reliable educational trailer. In August, NFSA President Shane Ray will be the guest speaker. October chapter meetings will include the popular Fire Marshal Forum.

The Columbia-Willamette NFSA Chapter will continue its work to push for fire sprinkler contractor licensing.

Florida Fire Sprinkler Association takes Daytona Beach by Storm!

The Florida Fire Sprinkler Association held its spring conference in Daytona Beach Shores, March 2-5, 2020. This conference was unique as it offered training not only to contractor license holders but also to Florida's Water-Based Permit Holders. The Water-based Inspector program was all new and designed with hands on training, games to test participants knowledge of inspections and prizes. The Water-based Inspectors were able to participate in hands on outside learning with the help of the NFSA Valve Trailer, Reliable Valve Trailer, Sprinklermatic Diesel Pump and Wayne Automatic Side by Side trailer and demo. Additional learning stations were set up including:

- Questions from NFPA 25 jeopardy style with prizes awarded for correct answers,
- Sprinkleropoly with questions on Florida state law. Attendees rolled dice, answered questions and won prizes that pertain to the Florida law.
- Name that sprinkler (a group of unique sprinkler types)
- What's wrong with this Report? Participants were given inspection reports with violations identified that could be a liability issue and were asked to find what's wrong and how to fix it.
- Red, Yellow or Green Tag? A group of 15 poster size inspection pictures where the attendees had to tag and site











where they found it in the standard. This was the most discussed of all the stations. Opinions are different and we had extensive conversations on how each inspector viewed the correct tag according to NFPA 25.

The day was fast paced and educational. Just check out some of the comments that were emailed to us after the training:

"This was my first NFSA training I attended. I am an Assistant Manager with a team that conducts the inspections and service of sprinkler systems. I must say that this training was eye-opening. It allowed for good hands-on and face to face knowledge base training. Thank you for the training class.

-Dan Marinaro, Assistant Service Manager, DynaFire

I just wanted to express how great these 2 days of training for Waterbased Inspectors has been. The first day of training is THE best day of training I've ever had in 16 years of attending CEU classes. The constant movement with different training methods (and prizes) including hands-on and real working equipment in trailers onsite for visual explanation was perfect! Thank you so much for you and your teams hard work!

-Joey Rodriguez, Sr. Chief Building Inspector Reedy Creek Improvement District

Had a great time at the revamped inspector training course in Daytona. Lots of hands on and interactive training. Great job with the new curriculum. Wish it was longer.

-Clay Wilson, Systems Group

The hands on, quick rotating modules covered a ton of information. I particularly appreciated meeting and conversations with the NFPA team members that are on the committees that write the code. Again - many thanks,

-Mark Astrom Gator Fire Equipment Company

I would like to thank you for the incredibly informative and interesting classes you administered. The City of Daytona Beach sent me and one other water-based inspector to attend your classes in Daytona Beach Shores. Having attended many other classes, I can tell you that your courses were the most informative and entertaining CEU's I have ever attended.

-John Boden, Chief Inspector City of Daytona Beach

NFSA and FFSA hosted a terrific conference on sprinklers in Daytona Beach Shores. It was a great exposure to many components and systems that opened my eyes to things I hadn't seen before. I do plan to return.

-Mike Stavely, Fire Inspector, North Fort Myers Fire Control District •





NFSA Leadership Team Attends Detroit Fire Sprinkler Advisory Board Meeting in Michigan

NFSA President Shane Ray brought several members of his leadership team to celebrate and thank our members in Michigan for their efforts in protecting lives and property from fire through the widespread acceptance of fire sprinklers.



Pictured L to R: NFSA Director of Membership Caleb Armbrust, NFSA Great Lakes Field Service Coordinator Ron Ritchey, NFSA DFSAB Secretary/Treasurer Bill Jacques, NFSA President Shane Ray, NFSA Michigan Chapter Chairman Marty Corcoran, NFSA DFSAB Chairman Jeff McNamara, NFSA Director of Field Operations Gary West, and NFSA Director of Public Fire Protection Jeff Hugo.

The State of Michigan is fortunate to have two chapters, the Detroit Fire Sprinkler Advisory Board (DFSAB) and the NFSA Michigan Chapter. NFSA Michigan Chairman Marty Corcoran and Mike Zimmer with KJL, provided a brief summary of key initiatives and goals for the upcoming year.

DFSAB Chairman Jeff McNamara engaged board members to identify strategic goals for 2020 and Secretary/Treasurer Bill Jacques went to great lengths to coordinate and organize the excellent accommodations for the 1st Annual DFSAB Christmas Party to be held at the spectacular Top Golf Suites at the MGM Casino in Detroit for the event.



NFSA President Shane Ray and his leadership team provided updates on the many strategic goals and accomplishments throughout the country and congratulated the board and their members for all of their combined efforts in Detroit and the State of Michigan.•

SPRINKLING OF NEWS

CST Announces Growth of Service Division through Increased Investments for Customers **Throughout North America**

CST Industries, Inc. announced its increased investment in the company's Service Department for customers throughout North America. The company has demonstrated its investments over the past year through a significantly increased service portfolio, parts inventory, customer focused educational training, and expanded team of experts.

"With more tank and dome installations installed and operating throughout the world than any other manufacturer, nobody better understands the diverse needs of our customers in both dry bulk and liquid storage applications," said Tim Carpenter, CEO of CST Industries, Inc. "As we continue our growth, we remain focused on further equipping customers with easy access to CST's team of expert service representatives delivering timely maintenance, inspections, parts, repairs, upgrades, equipment installations, refurbishments and other specialized services."

"Having the right solution at the right time is critical to minimizing downtime for our customers," stated Tom DeDonder, VP of Construction and Services at CST. "With an established MSA program, we are able to develop custom asset management programs by evaluating customers assets, prioritize the need of preventative care and providing detailed pricing to help customers plan for budgetary expenses to support their maintenance needs. With our years of experience, we know that with proper preventative care, customers can save tens of thousands of dollars and get up to 50% more life out of their assets. Customers can rely on CST to keep their production flowing smoothly and cost effectively."

■ Viking Unveils New Revit® Toolbar for **Fire Protection Systems**

The Viking Corporation announces the release of "Viking Tools for Revit®," an innovative suite of Revit® add-ins dedicated to the design of fire protection systems. Revit, from Autodesk®, is multidisciplinary BIM software used by building design professionals to produce consistent, coordinated, and complete model-based building designs and documentation. Fire protection professionals can now leverage Viking's tools to develop more efficient and accurate workflows in Revit.

Included in the complimentary toolbar is Viking's all-new Revit® family library and other valuable tools and utilities for the design of fire sprinkler, foam fire protection, and clean agent fire suppression systems. These tools include a sprinkler spacing utility, integrated sprinkler selection tool, clean agent manifold generator, and foam grate nozzle connector.

A key component of the new Viking toolbar is the "Clean Agent Assistant" (CAA) application, which enables the design and calculation of a clean agent suppression system within Revit. The helpful CAA wizard walks the user through the necessary design

steps including calculating the amount of agent and supply cylinders, auto-generating a manifold, placing nozzles, and drawing system piping. At the end of the CAA design process, a detailed project summary is provided including all calculation outputs and a complete bill of material for the clean agent system.

Viking Tools for Revit® is complimentary and can be downloaded at digital.vikingcorp.com. For additional information, please contact Viking's Digital Solutions team at digital@vikingcorp.com.

■ Zurn Launches 710 Vacuum Breaker Assembly

Zurn Industries, LLC announces the launch of its Zurn Wilkins 710 Pressure Vacuum Breaker Assembly. It serves to protect against back siphonage for non-potable residential and commercial irrigation systems. The 710XL features a compact, lightweight body and includes fewer parts to industry models.

The 710 Pressure Vacuum Breaker Assembly meets ASSE® 1020 performance requirements and IAPMO® standards. It is approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The 710 is available in 3/4" and 1" sizes. Standard or bonnet repair parts are available.

For more information, visit Zurn.com.

■ Victaulic Expands FireLock™ IGS Product Line to **Further Enable Small Diameter Grooved Adoption**

Victaulic's FireLockTM Innovative Groove SystemTM (IGS) line has expanded with the addition of three new products launching in the United States and Canada. The new FireLock IGS products have been developed to further enable small diameter grooved adoption in the Fire Protection market, with a focus on simplifying retrofit and sidewall applications. The new solutions include:

- RG1 IGS™ Manual Roll Grooving Tool: First-ever manual roll grooving tool designed specifically to cold form 1-inch IGS grooves into Schedule 10 through 40 pipe. The tool is ideal for in-air retrofit applications where threading poses a challenge.
- No. 147 Back-to-Back Sprinkler Tee: Groove solution for sidewall sprinkler applications, which are available in 1/2 x 1/2 x 1-inch. The small footprint allows the No. 147 to fit in between studs, making installation simple, fast and efficient.
- IGSTM Weld Plunger Cones: Protect the groove and sealing surface of the Victaulic No. 142 outlets from weld splatter. The two models available include the NAP-1 for North Alabama Pipe Welding machines and WB-1 for the Whirly Bird welding machines.



Johnson Controls Notification Appliance Self-Test Technology Receives UL Verification Mark

Johnson Controls addressable fire alarm notification appliances are the first in the fire protection industry to receive the UL Verified Mark for their innovative self-test function. The UL Verified Mark validates that TrueAlert ES self-test technology accurately tests and confirms the operational status of compatible notification appliances. The revolutionary feature provides a non-disruptive appliance testing solution for commercial buildings and eliminates costly after-hours device testing.



Available on compatible Simplex and Autocall TrueAlert ES addressable notification systems, the self-testing feature allows technicians to program the fire panel to manually or automatically test a group of devices or the entire system. Each device will produce an audible sound and/or visible output. The results are then stored in the panel for convenient reporting and reviewing.

Users can program the panel to schedule automatic tests at times when buildings are unoccupied to help avoid disturbance or inconvenience to occupants. When manual testing is required or desired, users can switch the system into manual test mode and check devices using a hand-held magnet.

The self-test capability helps enhance building safety and fire detection system reliability by allowing for frequent automatic testing of fire detection systems. It gives building staff peace of mind knowing the appliances will work when necessary. A recent independent study showed the Johnson Controls self-test capability detected non-operational units in 100% of tests. In addition, false negatives (identifying a non-operational device even though it had performed properly) were less than 1%. The test also confirmed the appliances function as specified in the automated test section of NFPA 72.

If a performance issue does occur, the system will pinpoint the exact device with the problem and address it. Users can view and print test results directly from the panel or through a Simplex or Autocall TrueSite Workstation.

For more information on Johnson Controls addressable appliances, please visit https://bit.ly/2vbxAwF.

For more information about the UL Verification for the TrueAlert ES self-test feature, please visit https://verify.ul.com/verifications/273.

■ Reliable Automatic Sprinkler Co., Inc. introduces KFR Series Sprinklers

Reliable Automatic Sprinkler Co., Inc. announced the introduction of the KFR Series of Quick Response fusible link sprinklers. KFR Series sprinklers are standard spray, quick response sprinklers with a fusible link operating element. The durable design provides protection against impact damage. The link does not extend beyond the wrench boss, reducing risk of damage during installation. The robust design allows KFR Series sprinklers to be shipped and installed without plastic protective covers, which eliminates the need to remove covers after installation of the sprinkler.

KFR Series sprinklers are available in K5.6 (80 metric) and K8.0 (115 metric) versions. KFR56 K5.6 (80 metric) Standard Spray Quick Response Upright, Pendent, and Horizontal Sidewall sprinklers are cULus Listed for pressures up to 250 psi (17.2 bar) and FM Approved for pressures up to 175 psi (12 bar). KFR56-300 K5.6 (80 metric) Standard Spray Quick Response Upright, Pendent, and Horizontal Sidewall sprinklers are cULus Listed for pressures up to 300 psi (20.7 bar). KFR80 K8.0 (115 metric) Standard Spray Quick Response Upright and Pendent Sprinklers are cULus Listed for pressures up to 250 psi (17.2 bar) and FM Approved for pressures up to 175 psi (12 bar). KFR56 and KFR80 Intermediate Level Sprinklers include shields which protect the operating element from cold-soldering caused by sprinklers located at a higher elevation. Optional pre-installed wrench-able guards protect the sprinkler from damage in areas subject to impact. When used with the Reliable Model J wrench, sprinkler/guard assemblies can be installed with the guard in place.

Adhering to Reliable's rigorous quality control process, each thermal link is X-ray validated, and each KFR sprinkler is visually inspected and pressure tested to at least 500 psi before being packaged. Reliable's high-capacity fully automated assembly ensures your product arrives on time, every time.

For more information visit reliablesprinkler.com/kfr.

Reliable Automatic Sprinkler Co., Inc. Announces Two New Locations

Reliable® is excited to announce the relocation of its Lorton, Virginia operation to Capitol Heights, Maryland and the opening of a new Distribution Center in Richmond, Virginia.

Capitol Heights opened for business in October 2019 and the new Richmond location opened February 2020. Both locations are served by Territory Sales Director Tom P. Field, Regional Sales Manager Josh Shapiro, and Operations Manager Jeff Galic. Operations Supervisor Kenny Cummins serves the Richmond location

The Capitol Heights Distribution Center is located at: 1101



Hampton Park Blvd. #200, Capitol Heights, MD 20743. Tel: 877.883.8831 Fax: 877.851.1553. The Richmond Distribution Center is located at: 4201 Carolina Ave, Building B, Richmond, VA 23222. Tel: 866.927.7775 Fax: 866.927.7776.

For more information visit www.reliablesprinkler.com/locations.

Its exterior is urethane coated, making it suitable for challenging environments. Available sizes are 2½" (65 mm), 76 mm, 3" (80 mm), 4" (100 mm), 6" (150 mm), and 165 mm nominal sizes with multiple end configurations.

For more information visit www.reliablesprinkler.com/prv.

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

Reliable Automatic Sprinkler Co., Inc. announced the introduction of the Model WP Series Window Protection Sprinklers. The Model WP Series Sprinkler is used with fixed glazed assemblies to create a cULus Listed alternative to a fire-rated wall. The Model WP Series is a 5.6K (80 metric) Fast Response Specific Application Pendent Vertical Sidewall Sprinkler that is Listed to provide complete wetting of various glass surfaces.

The Model WP Series is available with either glass bulb or rugged fusible link operating elements in both ordinary and intermediate temperature ratings. They may be used with heat-strengthened, tempered, or stronger glass windows. The Model WP Series is available in standard finishes of natural bronze, chrome plated, and white polyester. Special finishes of bright brass, dull chrome, black and custom color polyester are available upon request. The WP56 glass bulb sprinkler is also cULus Listed as corrosion resistant with electroless nickel plating (ENT), white polyester or black polyester finish. To protect a building exterior from fire originating from an adjacent building, open Model WP Series Window Sprinklers may be used on deluge systems.

For more information, refer to Bulletin 181 or visit www.reliablesprinkler.com.

■ Reliable Automatic Sprinkler Co., Inc. introduces **Model PRV Pressure Regulating Valve**

Reliable Automatic Sprinkler Co., Inc. announced the introduction of the Model PRV Pressure Regulating Valve. The Model PRV Pressure Regulating valve is an FM Approved diaphragm-type valve used to reduce and regulate pressure in both flowing and non-flowing conditions. It is shipped fully assembled with compact trim, complete with pressure relief valve. With no restrictions on installation orientation and a tight footprint, the Model PRV is ideal for areas where space is limited.

It is approved for pressures up to 400 psi (27.6 bar) with fieldadjustable output pressures from 50-200 psi (3.4-13.7 bar). The Model PRV's simple design utilizes a single moving part – a resilient fabric-reinforced EPDM diaphragm – that ensures consistent operation over time. There are no trim connections to the face of the valve, providing access to the interior of the valve without removing any trim components. This allows easy and efficient inspection and maintenance of the valve. The Model PRV's body is lightweight ductile iron with a durable red oxide epoxy coating.

■ Johnson Controls introduces TYCO® Nitrogen **Corrosion Solutions Portfolio**

Johnson Controls announces a new TYCO® portfolio of corrosion solutions for fire sprinkler systems. This family of products gives the fire protection industry a complete Johnson Controls portfolio that can significantly increase the lifespan of dry, preaction and wet fire sprinkler systems.

The portfolio includes Model NG-1 nitrogen generators offered in wall-mounted, standalone and skid-mounted models. Using a patented fill-and-purge process, the NG-1 nitrogen generators remove corrosive oxygen and replace it with nitrogen to stop the corrosion process.

TYCO® nitrogen generators are Factory Mutual (FM) and Conformitè Europëenne (CE) approved and generate 98%-purity nitrogen, replacing nearly all oxygen in the pressure maintenance gas. All equipment is installed in the sprinkler riser room, eliminating the need for remote equipment and extensive gas sampling lines, which simplifies installation and maintenance. The generators do not require a nitrogen tank or refrigerated dryer, making the reduced equipment footprint ideal for compact spaces.

The portfolio also features a line of accessories, vents and nitrogen inerting devices designed to help fight or stop corrosion. This portfolio includes the TYCO® In-Line Corrosion Detector (TILD), which monitors sprinkler systems and provides an early warning of corrosion. The TILD can be monitored locally using the included Remote Test Station or remotely via the building monitoring system. In addition, the TYCO® Air Vent, Wet (TAV-W) Automatic Air Vent is designed to remove trapped air from wet fire sprinkler systems, which helps meet 2016 NFPA 13 requirements for air vents in wet-pipe systems. It is also available in a wet-pipe nitrogen inerting model (WPNI) – the TAV-WN.

For more information on TYCO® Corrosion Solutions from Johnson Controls, visit www.tyco-fire.com/CorrosionSolutions.

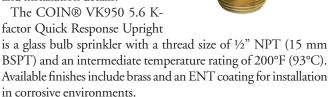
■ Improved Listing for VK950 COIN® Sprinkler

The Viking Corporation has enhanced the cULus Listing for its 5.6 (80) K-factor quick response COIN® sprinkler. The new Listing allows the VK950 upright sprinkler to protect combustible concealed spaces without the use of draft curtains in most applications, making it an ideal replacement for competitive sprinklers that have more stringent and expensive draft curtain requirements.

The new VK950 UL Listing applies when sprinkler spacing is up to 16' X 16' (4,9 m X 4,9 m) for truss construction with top chord



member on face (not on edge) for wet or dry systems. The Listing is also applicable when sprinkler spacing is up to 14' X 14' (4,3 m X 4,3 m) for trusses with top chord member on edge or solid wood joists for wet systems. The updated VK950 technical datasheet contains complete design and installation details.





To learn more about unique fire protection solutions from Viking, visit www.vikinggroupinc.com or contact your local Viking SupplyNet distribution center.

Zurn Continues Partnership with ASPE **Young Professionals**

Zurn Industries announces its continued partnership with the American Society of Plumbing Engineers Young Professionals (AYP). Zurn has partnered with AYP since 2018 and has sponsored numerous training presentations and events, including the Specifier of the Year contest – held in 2019.

Through ASPE Young Professionals, members can exchange ideas, attend educational webinars and meetings, and network with industry leaders. ASPE members, 35 years old or younger, may join. For more information, visit www.ASPE.org..



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.

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 all least 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

■ 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. <u>Images must be submitted as</u> <u>separate hi-rez jpegs</u>. Charts and tables must be

■ Illustrations

NFSM uses a variety of photographs, line art, charts,

■ Copyrights

Articles must be exclusive to *NFSM* magazine and

■ Payment

 $\ensuremath{\textit{NFSM}}$ does not pay for articles; we do recognize an author with a byline and credit.

NFSM EDITOR: Joanne Genadio

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.

SOUTHWEST REGION

San Diego Fire Protection Officers Meet in La Mesa, California

The San Diego Fire Protection Association met in La Mesa for a lunch meeting on February 11th and received a presentation on State and National news, events and legislation efforts being targeted by the NFSA. The presentation included two videos featuring information on the Federal Tax Incentive Act. Bruce Lecair also reported on NFSA efforts to achieve tax assistance for residential high rise and federal housing. The event was attended by 20 members of the fire sprinkler and fire prevention industry.

California Office of the State Fire Marshal NFPA **25 AES Forms Revision Committee**

The California NFPA 25 AES Forms Committee met on February 18th at the Woodland Fire Department Training Center in Woodland, California. The Forms Committee is a subcommittee chaired by Regional Manager Bruce Lecair and consists of members from the OSFM Automatic Extinguishing Systems Committee. The subcommittee is tasked with reviewing all current California Automatic Extinguishing Systems forms and editing each with California amendments to 2020 NFPA 25 edition national standard. The subcommittee will also be making recommendations on a new format and an electronic format for use in California. The target date for the subcommittee to make their recommendations in at the OSFM AES Committee meeting on April 29th, 2020 at the Office of the State Fire Marshal at 2251 Harvard Street, Sacramento.

NORTH CENTRAL REGION

Fire Service Day at Minnesota Capitol

On February 19, 2020 The Minnesota Fire Association Coalition (MNFAC) held Fire Service Day at the Capitol. State Coordinator Tom Brace was invited to attend by the Chair of MNFAC and heard a briefing from the Governor, Auditor and the Commissioner of Public Safety. The Chair and the President of the Minnesota Professional Firefighters jointly conducted a briefing to the assembled group of approximately 117 firefighters in the basement of the recently restored State Capitol Building. A box lunch was served to the delegates and they were able to travel all over the capitol site without going out in the below freezing environment.

Part of the briefing included support for residential fire sprinklers. This long held position fits nicely with the new High Rise Retrofit legislation as it applies to Public Housing (HF 3003). Tom was the only private sector person in attendance and represented the National Fire Sprinkler Association. "It is critical that our Association remains close to not only the Minnesota Fire Service, but to the Fire Service in general." said Brace.

MID-ATLANTIC REGION

Marcal One Year Later

Owners of the Marcal Paper Plant announced that the business would be reopening sometime in January. This reopening comes a year after a fire devastated the facility. Luckily, no workers or firefighters were injured in the blaze, but 31 of 36 of the facility's buildings were completely lost in the fire last January. Firefighters from 10 different towns battled harsh winds and freezing winter weather as they fought to contain a fire that burned for hours. Despite these adverse conditions, firefighters were able to contain the fire and extinguish it.

Fires like the one at the Marcal plant highlight the importance of proper inspection, testing and maintenance. While fire sprinkler systems are versatile and effective in many situations, they still require that a qualified professional inspect them regularly. If the contents or storage of a room change, a fire sprinkler professional will be able to recommend a course of action to the business owner, ensuring that the building is adequately protected.

GREAT PLAINS REGION

High School Career Fairs

From Field Service Coordinator Rob Geislinger:

As I visit contractors, one the biggest needs they admit to is a shortage of sprinkler fitters and layout technicians. Many contractors claim there is an abundance of work that they are unable to bid on because of a lack of qualified employees. This shortage in qualified employees affects not only the sprinkler industry but the other skilled trades, such as electricians, plumbers, and mechanical fitters as well. To draw new blood into the sprinkler industry, your Regional NFSA representative has been busy attending several career fairs around the region, with a few more on the calendar for the remainder of the school year.



Fortunately, many school districts have begun to realize that not all students will benefit from a college degree and the significant debt usually associated with it. Because of this, many school districts have begun hosting events focused on career opportunities in trades not requiring higher education. To date, your representative has reached out to over six-thousand students with the benefits of a career within the fire protection industry. Quite a few students have reached out for additional information.

Unfortunately, there is no central database to identify those districts hosting construction career fairs. If you become aware of such events, please reach out so that the industry can be adequately represented.

Fire Safe Colorado

On January 31st, the Colorado Division of Fire Prevention & Control hosted the initial meeting of its new Fire Safe Colorado (FSC) initiative, the mission of which is to "engage Colorado's fire and life safety professionals to work collectively at reducing the risk of fire and other emergencies in our local, regional, and statewide communities." FSC was based upon a similar effort developed by the South Carolina State Fire Marshal's office in hopes of bringing together professionals from the various disciplines with an interest in protecting our built environment and citizens from the ravages of uncontrolled fire. The initiative envisions that regional interest groups will form to address areas of local concern.

This initial meeting, held in Colorado Springs, drew about 50 people representing fire departments, building departments, emergency management, water purveyors, life safety educators, fire investigators, sprinkler contractors and representatives from NFPA and NFSA. A task force, headed up by a member of the Colorado Springs Fire Department, will be tentatively scheduling its first regional meeting within the next few months.

The Division will be hosting further meetings throughout the state, with the hopes of reaching participants within each of the State's emergency management zones. If you would like to find out more or are interested in participating within your own region, check out the initiative's website at https://sites.google.com/state.co.us/firesafecolorado/firesafecolorado.

EMPIRE REGION

2020 NY State Uniformed Code

The new state code based upon the 2018 I-Codes published by the International Codes Council will be mandatory as of May 12, 2020. Please DO NOT BUY the 2018 I-Codes as you may have incorrect material in which you are basing your project on. When, if purchasing ensure it is specifically the particular code(s) of the 2020 NY State code set. From Dec 2019 to May 12, 2020 either the previous NY Code accompanied by the 2017 NY State Supplement may be used or the 2020 code set can be used until May 12th, 2020, but technicians cannot pick and choose from one to the other on a single project.

The Building Code and Fire Code are referencing 2016 editions of NFPA 13, 13R, 13D, 14, 20, 24. The NFPA 22 standard was updated to the 2018 edition and NFPA 25, 2017 edition. The "new kid on the block" is the adoption of the 2015 edition of NFPA 4, Safety System Testing. Some others include NFPA 11, 2016 edition, the NFPA 16, 2015 edition, and 2017 editions of NFPA 17 and 17A.

Please visit full announcement with links to each 2020 code and you can also view each code at no cost: https://www.dos.ny.gov/dcea/noticadopt.html

NY State Contractor Licensing-

The Assembly and Senate Bills, as of this writing, are being redrafted after several meetings with NFSA contractors, NFSA Regional Manager Dominick Kasmauskas, JCI representatives, and AFSA representatives. There are no astounding changes and the redraft softens some of the areas of concern to contractors. One item was allowing a New York State option to be created as an "equivalent" to NICET requirements that were in the original language.

Assembly version and Senate version are identical, but here is the link to the Assembly 7510, which should be A7510a (and S5804a) soon: https://www.nysenate.gov/legislation/bills/2019/a7510

New Paltz (Village), NY

New Paltz (Village), NY has adopted a residential fire sprinkler ordinance for new one- and two-family houses or major renovations of existing houses due to the growing numbers of students seeking off-campus housing in the SUNY New Paltz area. Many houses are divided up and the fire safety concern is increasing. Congratulations to the Village of New Paltz for doing what is the ultimate in fire control for its citizens, visitors, and its firefighters. However, there remains the challenge of convincing the State Codes Council that these SUNY communities and neighborhoods are a "special" situation and this local law should be approved by the Council and allowed to stand. There are approximately 55 SUNY communities across NY State that could be, should be next to adopt a similar local law.

REGIONAL NEWS

continued from page 91

Putnam County, NY Plumbing Board

Putnam County, NY Plumbing Board has been approached by the NFSA and other entities to reopen their licensing for fire sprinkler installations and inspections. At present, the local law requires "installers", not the "companies" to be NICET 3. We feel this was an error in misinterpreting and copying the Syracuse, New York license language. Hopefully a favorable outcome will be reported in a near future edition of NFSM.

Oneonta (City), NY

Oneonta (City), NY new fire sprinkler contractor license is enacted. New license language:

4) Each applicant for a fire suppression contractor's license must submit proof to the City Clerk of four years of full-time work experience, or the equivalent over a longer period of time, as a journeyman working under the supervision and control of an individual or company holding a valid fire suppression contractor license or proof of at least eight years of full time work experience in the fire suppression field; or a combination of equivalent experience and education, with affidavits supporting such qualifications. Any applicant for a fire suppression contractor's license shall hold a current and valid NICET III certification in either "Water -Based Systems Layout" or Inspection and Testing of Water -Based Systems".

Busy Times

The first half of every year is a busy time for any NFSA Regional Manager, and this year is no exception for Regional Manager Dominick Kasmauskas, as he continually seeks opportunities to promote the fire sprinkler concept to the public as well as legisla-

Annually, on Presidents Day Weekend, Kasmauskas has staffed a tabletop display at the New York Association of Towns Conference in Manhattan. This year, as most years, the NY State Dept of State invites Kasmauskas to present during their Codes Training Track which is well attended by P.E.s as well as Code Enforcement Officials. For 2020, Kasmauskas was invited to deliver a Media Relations presentation, which covers a Bill of Rights as to what parties should expect for and from the journalist, as well as the person being interviewed or holding a press conference.

MISSOURI REGION

Vince Powers Brings ITM to St. Louis

NFSA ITM Specialist Vince Powers, brought a wealth of information to the St. Louis area during a busy three-day visit in January. Presenting the Understanding, Applying and Enforcing

NFPA 25 training class to a packed house of fire marshals, building officials, sprinkler contractors, building managers, and insurance representatives, on January 15th, Powers discussed recent code changes, internal pipe inspections, impairment tagging and testing procedures. With a lack of common ITM ordinances among some 50 different fire departments and 90 municipalities in St. Louis, Powers explained the benefits of, as well as the need for, ITM inspection reporting.





As a former sprinkler contractor, Powers knows all too well the importance of accurate documentation and presented these points to contractors and fitters at an evening seminar on January 14th. He spent a good portion of the class discussing obstruction investigation, an often misunderstood section of the code.

At our January Chapter meeting, with a good representation from our fire sprinkler fitters, contractors, suppliers and manufacturers, professional, and insurance members, Powers and NFSA Codes & Standards Specialist Andrew Bevis presented an opportunity for the group to collaborate and share. Those in attendance agreed that all three presentations brought a tremendous amount of information to the St. Louis area.

SOUTH CENTRAL REGION

Texas Best Retrofit Programs Featured at NFSA Annual Seminar

Three Texas Municipal Fire Marshals and their Fire Protection -Retrofit Ordinances will be featured at the NFSA 2020 Annual Business Seminar in Phoenix Arizona on April 29, 2020:

Assistant Fire Chief Christopher Monestier, a 25-year member of the San Antonio Fire Department presents the City of San Antonio High Rise Ordinance adoption process effective November 2015.

Tim Ippolito, Fire Marshal for the City of Lewisville, Texas, a city of 110,000 in the Dallas/Fort Worth Metroplex spearheaded the Historic Downtown Retrofit for Lewisville.

Bryan K. Parker Grapevine Fire Marshal: provides an overview of the Grapevine Downtown Retrofit.

All 3 Fire Marshals will share their unique funding mechanisms and community partnerships that worked to bring key stakeholders into the retrofit process. Stakeholder meetings and concerns will be illustrated by each fire marshal. Case studies of successful retrofit buildings will also be presented.



1: Chief Monestier of San Antonio Fire Department







3: Chief Parker of Grapevine Fire Department

Fire Sprinkler Training #1 Priority in South Central Region!

NFSA Expert Trainers will be teaching all over Texas during Summer 2020. Come join us!

May 12, 2020

Residential Fire Sprinklers – Dallas Texas

May 13, 2020

Pumps A to Z: Selection & Protection – Dallas Texas

June 4-7, 2020

Skins & Fins – Houston, TX

July 28-30, 2020

NFSA Fire Sprinkler Training

HOUSTON AREA THEATER FIRE PROTECTION

From new to old theaters — Houston area Fire Marshals protect Theaters!

86 yr-old historic theatre in #ConroeTX recognized by fire department for installing a#firesprinkler system during remodel. Protecting history w/#fastestwater!



LITTLE FIREFIGHTERS RESPOND TO THE CRIGHTON THEATER SITE OF THE FIRE THAT DESTROYED BLOCKS OF CONROE TO ASSIST DELIVERING AWARD

montgomerycountypolicereporter.com

In December 2019 and February 2020; Conroe and Fort Bend Fire Marshals have reported Fire Sprinkler Saves from fires that started in their movie theater popcorn machines. At the same time, the Conroe Fire Department has worked proactively to help the Downtown Historic Crighton Theater install Fire Sprinklers during the theater's recent remodeling process. The Conroe Fire Department awarded the Phoenix Award for Fire Safety to the Crighton Theater on February 21, 2020.

The City of Conroe Fire Department recognized the Crighton Theatre Foundation for investing in the long-term survival of Montgomery County's crown jewel by adding a fire sprinkler system to the theatre during their remodel. This will not only ensure the survival of such an important icon; it will also increase the life safety of those attending its events immeasurably. The Crighton theater and downtown Conroe were destroyed almost 100 years ago by a devastating fire on February 21, 1911.

REGIONAL NEWS

continued from page 94

WISCONSIN REGION

Sprinkler Save in La Crosse, Wisconsin

A sprinkler system and fast-acting firefighters keep a fire in a downtown La Crosse condo unit from spreading further. The La Crosse Fire Department was called to the Gateway Terrace Condominiums at 9:18 a.m. after a fire alarm was reported. Crews found smoke and fire in one of the units. Battalion Chief Jeff Schott said the sprinkler system in the condo was working properly and is believed to have kept the fire from spreading to other units. The condo itself had moderate smoke, fire, and water damage according to Chief Schott. No one was injured in the incident.

NORTHWEST REGION

News from Around the Region

Northwest Regional News - Updated 3/12/2020

This spring brought an interesting legislative session to the state of Oregon. Due to partisan politics that spilled over from last session's contentious cap and trade bill, half of the legislators walked out towards the end of the session, leaving many important issues on the table. Despite much work since last session to move fire sprinkler contractor licensing forward, these efforts were placed on hold along with many other important Oregon issues.

An Idaho bill to prohibit requiring fire sprinklers in three- and four-family dwellings was introduced in the House Business Committee. However, thanks to a fast and decisive response from numerous fire service groups along with assistance from NFSA, the bill never made it out of committee.

Washington state passed a law allowing adult family homes to increase capacity from six to eight beds if they meet certain criteria, including requiring "a residential sprinkler system in place in order to serve residents who require assistance during an evacuation." This is a positive step toward establishing fire sprinklers as a critical life safety requirement for vulnerable populations. As of press time, the Washington State Building Code Council had included a requirement for sprinklers in all townhouses with more than four units as part of its recommendation to the state legislature. Local jurisdictions may require sprinklers in all townhomes, and as of press time, the city of Seattle was considering this option.

NFSA will be hosting three days of classes in Missoula in September, providing training on standpipes, pumps and hydraulics to area contractors and AHJs. Thanks to Western State's Patrick Hooper for proposing the classes, and Missoula Rural Fire District for hosting.

As of press time, the Idaho Fire Prevention Forum planned on holding its annual Burn Cell Demonstration event on May 20 as part of National Fire Sprinkler Week. NFSA President Shane Ray was scheduled to be the guest speaker at the event.

The Fire Sprinkler Advisory Board of Puget Sound sponsored a highly visible spring billboard campaign in April, featuring the slogan "Sprinkler Protect What Fire Destroys.".



Chinook Fire taking a break

Chinook Fire Protection crew members take a break to warm up after testing a new foam fire protection system at the Port of Anchorage in February. The system was designed to protect fuel loading on a rail rack. With temperatures hovering in the teens during the final phase of the project, the system test provided plenty of real-world performance data. Shown are Michael Wilcheck, Mike McDonnell, and Jamie Bennett.



Anchorage Class Feb 2020

More than 50 fire protection contractors, fire and building officials attended NFSA's two-day fire sprinkler plan review class in Anchorage in February hosted by the Alaska Central ICC Chapter.



WA Best Practices Forum Feb 2020

Moderated by NFSA members Todd Short of Redmond Fire Department and Tracy Moore of Moore Fire Protection, the Washington State Residential Fire Sprinkler Coalition's Best Practice Forum included lively discussion.



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