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Pasta Fagioli

>>> FROM THE EDITOR

... and now for Something Completely Different

Although I am quite comfortable with my Social Scene column towards the back of each issue, I find the need to get up close and personal in this one. Our inaugural Member Takeover issue will get you, the reader, up close and personal with many of our members. The stories within are nothing short of inspirational. I'd like to take a moment to thank every contributor. The time and thought that went into each submission is apparent, and Team NFSA could not be happier with the result. We hope to make this an annual event, so if you didn't get in on the action this time around, please mark your calendars for next July, that's when submissions will be due for the September/October 2019 Member Takeover issue.

And now, just because I love to cook and just cannot allow myself to let the chance go by to share one of my recipes, here is my original recipe for Pasta Fagioli -and it's the best you'll ever have (just ask Dave Lafond!)

Makes four good-sized servings

1/4 c olive oil

2 cloves garlic, diced

One medium onion, chopped

Crushed red pepper flakes (to taste)

1/4 lb. prosciutto, diced

2 plum tomatoes, seeded and chopped

2 cans chicken broth

1/4 c dry white wine

1 t. herbs de provence (if you don't have, use a bay leaf)

2 cans good quality cannellini (white kidney) beans (Progresso or Sclafani are my favorites)

½ lb. ditalini, small shells or other small sized pasta, cooked.

In a nice size frying pan with high sides, fry the prosciutto in the olive oil until lightly crisped. Add the onion and garlic and red pepper flakes, fry until light golden brown. Put in chopped tomatoes and let cook until soft, stirring often. Add wine and stir till it evaporates a little. Add chicken broth, herbs or bay leaf. Lower temp and cover, let simmer very slowly for about 20 minutes or until flavors meld, stirring occasionally.

Put beans in colander and rinse well under cold water until clean. When sauce is done, add beans, stir until beans are warmed, no more than 1 minute, then shut off, it's done. Don't let beans "cook" in sauce or they get mushy.

When ready to serve, discard bay leaf if necessary. Put pasta in bottom of pasta bowls and top with the fagioli soup and stir. Serve with warm, crusty Italian bread and good quality grated cheese. You'll think you died and went to heaven...

PS- Don't mix the pasta with the sauce if you have leftovers, keep separate or the pasta and beans will absorb all the liquid. • - Joanne Genadio



EVENTS OF INTEREST TO NFSA MEMBERS

9/5 - 16/2018

Sprinkler System Plan Review San Marcos, CA

9/18/2018

Sprinkler Installation Requirements Austin, TX

9/19/2018

Introduction to NFPA 20 and NFPA 25 Austin, TX

9/20/2018

Advanced Hydraulics Austin, TX

9/25/2018

Updates to NFPA 13 - 2016 editionLake Jackson, TX

9/26 - 127/2018

Protection of Storage Houston, TX

10/15-26/2018

Two Week Layout Technician Training Seattle, WA

10/22 - 126/2018

Layout Technician Training - Blended In Class PracticumSeattle, WA

12/4/2018

Rough and Final Inspections of Fire Sprinkler Systems Millburn, NJ

12/5/2018

Rough and Final Inspections of Fire Sprinkler Systems Conshohoken, PA



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From the President's Desk

Shane Ray

Member Takeover

membership-based organization should always focus on its mission, which is obviously most important to its members, but it must know its members and the industry to best service them. We have refocused on you as members and I hope you can imagine my delight when I learned that our September/ October issue of NFSM was a member takeover issue. I look forward to hearing from our members within the pages of this issue, and I want to stress to you our focus on you, every day of the year.

Since being blessed to be in this role, I have visited every NFSA Chapter in our country and I didn't stop there. I have been visiting our member companies, from their headquarters to their jobsites. What a blessing it is to see you in action and to learn ways we can better serve you and better engage your entire team. As we strive diligently to improve



our systems and processes, we must hear from you. Our Chair Kent Mezaros led the charge with a challenge to reach out to him. As we strive to promote the fire sprinkler industry and serve the needs of you, our members, we will have some glitches along the way, but please know we genuinely care and will make corrections to any issues you may have that we can resolve.

Membership is the core of our trade/industry association and as many of you have heard me say, we are one of the only membership-based organizations I have been affiliated with that the majority of our funding comes directly from dues. Our team is committed to serving you, and I hope you see that from initial membership to our extra efforts to maintain our current members. Much like our communities or our companies, new growth is good, but maintaining our existing citizens, clients, and/or customers is our sustainability.

Our mission "To protect lives and property from fire through the widespread acceptance of the fire sprinkler concept" comes to life every day with your work. We are in the life safety business, and whether you are a manufacturer, supplier, contractor or a local AHJ or professional member...you matter to us! I hope you see our team in the field and in the office, but the places I can assure you they are working diligently in is our capitals, city halls, county courthouses, code hearings, standards committees, classrooms, chief's offices, fire marshal offices, condo association meetings, and behind the scenes on fires and major incidents, or in front of the camera when the industry is under attack. From the local, state, and federal governments to the national and international codes and standards organizations, NFSA is working diligently every day, for you.

As your Association staff works to make sure member value is a cornerstone of our programs, initiatives and daily work, we want you to know we welcome your input. Is there something you wish you had that isn't available? Let us know! Do you have ideas for new advocacy, code, training, website features, or major initiatives such as health insurance or a national foundation? Let us know, we value your feedback.

As we focus our efforts on growing the fire sprinkler industry, I pledge to you that your voice matters far longer than one issue of our magazine. As you hear me say as I travel around, I am proud of our inclusivity and that our board is made up of a diverse group of members. Well, we can't be the "Voice of the Fire Sprinkler Industry" if we aren't getting your input and feedback. Our door is open, we are in the field with you and we are in the hearings for you, we welcome your feedback.

Thanks again for helping our editor, Joanne Genadio, with this edition of the magazine, but most of all thank you for what you do every day to fulfill our vision and mission. You truly make a difference and I know more and more of our member companies are motivating their entire teams by sharing the differences they make. I also hope the weekly Spotlight on Fire Sprinklers plays a small role in helping you spread the word about fire sprinklers.

We appreciate you and look forward to the opportunities ahead!

A grateful,

Shane Ray. *President*



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From the Chairman's Desk

Kent Mezaros

Wisdom and Cheesecake

hen I received my first email regarding the NFSM Member Takeover issue, my first thought was "Perfect, that's one less article I'll have to write." However, I was soon informed by the President of our fine organization that he and I would still be penning our own contributions for this issue, hence the reason you are once again seeing my picture above.

In looking at some of the suggestions NFSM Editor Joanne Genadio listed for members to possibly share with our special issue, I noticed "maybe share your favorite recipe" amongst others and I immediately decided that I would definitely share my favorite recipe. It's actually my mother's recipe, but we are blood-related and it is sure to please, so either skip right to the end now and start baking, or you can take a minute or two and push through the rest of this.



It's ideas like this Member Takeover Issue that reminded me of wisdom shared years ago by our NFSA President at the time, John Viniello. John quoted Walter Gretzky (Hockey great Wayne Gretzky's father) who told his son to

You can reach me at: kmezaros@qrfpss.com kent@quickresponsefireprotection.com

"Skate to where the puck is going, not where it has been." I'm sure there are quite a few of you that have heard this statement before. Warren Buffett used in back in 2008 directed at stock market pessimists. Steve Jobs used it back in 2011 in referring to how they liked to think at Apple. The wisdom being that instead of concentrating on what has already happened, we should try to figure out where we should be heading. I do find it interesting that I have reached into the past to memories of Johnny V. sharing that story with the Board to encourage forward thinking. But, oh well, somehow this all ties together, no? We all need to get out

of our comfort zone, think differently, and try something different if we want to grow.

In our forward thinking here, NFSA is allowing members to take part is shaping the success and future of our industry. In my instance, I am throwing you an overused but still poignant cliché, and a hell of a cheesecake recipe. My lead designer, William Roberts, took over for Mark Hopkins this issue and has shared some insight into NFPA #13D, 13R & 13 residential construction issues we have experienced here in New Jersey. Hopefully, others will bring some out of the box thinking to the publication, and/or share their wisdom as well, and it will be a good read for all. Nonetheless, kudos to NFSA staff for mixing it up and giving it a whirl.

Here's hoping you all enjoy the issue (and the cheesecake).

Momma Mezaros' Cheesecake

Ingredients

13/4 cups of graham crackers ½ cup (1 stick) butter - melted 1 cup sugar, divided 2 lbs. of cream cheese (packages) 1 tsp. vanilla 2 tbls. Cornstarch 1 cup sour cream

Directions

- Preheat oven to 450 degrees
- Place graham cracker crumbs, butter and 2 tbls. butter in a bowl and blend well. Press mixture onto bottom and sides of 9" springform pan. Chill in freezer while preparing filling.
- In mixer bowl, beat cream cheese and remaining sugar until smooth and light.
- Beat in eggs, vanilla and cornstarch just until blended.
- · Stir in sour cream.
- Pour mixture into prepared crust and bake for 10 minutes.
- Reduce temperature to 200 degrees and bake for 45 minutes.
- Turn off over and allow to cool gradually with door opened slightly for 3 hours.
- Remove sides from pan and chill.
- If you wish (and it is delicious) top with sliced strawberries and glaze.

Respectfully yours,

Kent Mezaros, Chairman

CONTRACTOR'S CUE

Why Jeff Bezos Does Not Allow **PowerPoint at Amazon**

By Wayne Elsey

f you're ever going to make a presentation to Jeff Bezos at Amazon, here's a tip--don't make a PowerPoint presentation. As noted in an article in Observer about Bezos' approach, "In one episode of The Office, Dwight says of Ryan's flashy PowerPoint slides, "PowerPoints are the peacocks of the business world: all show, no meat." Bezos is now famous for not permitting PowerPoints, and his approach and demands for substantive meetings is probably why he owns one of the few largest global brands in the world.

Staff participating in meetings will write or read six-page memos. The beginning of the meetings is spent by meeting participants reading these lengthy memos. Why does Bezos demand this of his team? In his opinion, PowerPoint fails to provide sufficient information and is prone to audience interruptions. A memo communicates well-reasoned thoughts.

Understandably, when you're the CEO of a global brand like Amazon and when your team is meeting and making decisions that can have a substantial impact on the growth of the company and bottom line, it is essential that well-reasoned communication takes place. Should you and I, as business owners do it? That depends.

I'm personally someone that likes to provide and receive information in a condensed and concise fashion because I'm the ultimate decision-maker on almost all aspects of my businesses. My businesses are not on the scale of a global brand like Amazon. However, I can see how the Bezos approach is essential. I think we operate in a world where most people have very short attention spans. We're all rushing from one thing to the next, and the fact is that most of the time if you can't capture someone's imagination or interest in about 90 seconds, you've lost them. However, it is a mistake to think that using the PowerPoint approach is the right way to go.

As a business owner, you're looking to expand and develop your business. One of the most important areas for you is your sales team. Let's say, for example, you want to understand why your sales team has projected an increase in revenue for next fiscal year of 10 percent. You're going to make assumptions based on those revenue targets, and you'll craft an operating budget that could potentially reflect that 10 percent increase in revenue. In this situation, a business leader would be smart to take the Bezos approach and require a well-thought-out, detailed and reasoned memo explaining the who, what, when, where and how of the 10 percent increase in revenue.

There are many other situations when it would be wise to require that your team deliver to you a well-reasoned and thoughtful written presentation on their thinking, which will impact the decisions you will make as its leader. For instance, you might be looking to create a new job or department that will be expanded because you've been succeeding and want to reinvest your profit to grow the business. You might also consider making a purchase of thousands of dollars of equipment, starting a new marketing initiative, or be looking to expand the footprint of your business. All of these are excellent opportunities where you should require your team to take a pause and explain their rationale to you as thoroughly and thoughtfully as possible. As Bezos explained according to the Observer article, "When you have to write your ideas out in complete sentences, complete paragraphs it forces a deeper clarity," Bezos told Conor Neill, a business coach at IESE Business School in 2012, "If you have a traditional PowerPoint presentation, executives interrupt. If you read the whole six-page memo, on page two you have a question but on page four that question is answered."

While I'm not sure all business leaders need to demand that their teams produce evidence-based memos ahead of each of their meetings, and that's not, candidly, the way I operate my businesses, I do see and understand the value of requiring these types of memos for critical decision-making meetings on critical topics. •

Wayne Elsey is author of "Not Your Father's Charity: Grip & Rip Leadership for Social Impact" (Free Digital Download available at http://notyourfatherscharity. com/free-resources/) © 2018 Article Source: https://EzineArticles.com/expert/ Wayne_Elsey/2016149

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NFPA 13 Design in Buildings Only **Needing NFPA 13D and 13R Systems** by Code

by William Roberts, S.E.T.

William (Willy) Roberts is the lead layout technician (designer) for Quick Response Fire Protection based in Freehold, NJ. Willy is a NICET Level IV engineering technician with approximately 30 years of work in the sprinkler industry. Much of Willy's work involves the design of sprinkler systems for large residential and multi-use complexes with and without wood construction. However, his work involves water-based fire protection systems in a variety of commercial and industrial applications as well. Willy is a member of the NFSA Engineering and Standards (E&S) Committee and provides valuable input on technical issues. In addition, Willy represents the E&S Committee as a member of the NFPA 13 (AUT-RSS) Technical Committee responsible for development of NFPA 13D and 13R.



In New Jersey, where I work and reside, it seems as if more and more residential buildings having wood construction are being required to be designed with sprinkler sprinklers in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems. These buildings per local code and standards could be designed according to NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and

Two-Family Dwellings and Manufactured Homes, or NFPA 13R, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies; however, township officials are effectively bypassing the mini-max state laws and asking for additional code requirements during the zoning phase. In addition to Towns requiring more than the minimum required by code, there are owners opting for additional Protection.

On January 22, 2015, Avalon Bay Properties had a major fire in a very large residential structure in Edgewater New Jersey. The Company I work for does a lot of work for Avalon Bay Properties and had permits for two projects requiring 4,000+ sprinklers in two separate towns for them. Following the fire, Avalon Bay Properties had us withdraw these permit applications and completely redesign the sprinkler systems for these projects according to the requirements of NFPA 13. Since that experience, with few exceptions, we have designed sprinkler systems for all new buildings being built for Avalon in accordance with NFPA 13, including the rebuild of the Edgewater Property.

There are a number of design requirements for residential buildings constructed of wood that are quite different in NFPA 13 from the requirements found in NFPA 13D and 13R for these same buildings. If you are always accustomed to designing, installing or reviewing projects based on the requirements of NFPA 13D and 13R there are items that can be overlooked and sometimes mis-understood when faced with a full NFPA 13 design. Based on some of the recent changes to the International Building Code, I believe we will see NFPA 13 systems used more often in some of these buildings. This article will discuss a few items that I get questioned on frequently. The article also identifies a few items that seem to be frequently missed and may help you to identify possible issues as they arise before becoming costly or difficult to resolve.

The most common questions that I get faced with refer to spacing, sizing and design requirements for residential sprinklers in dwelling units. The NFPA 13 design approach is somewhat similar regarding the maximum number of sprinklers to be calculated in the dwelling unit but that's where it ends. NFPA 13-2016, section 11.3.1.1 states that "the design area shall be the area that includes the four adjacent sprinklers that produce the greatest hydraulic demand." In most cases, the most demanding four adjacent sprinklers will be on a single line. There are some instances where you may also need to calculate eight adjacent sprinklers if certain combustible concealed spaces are not protected. This is one issue that can be easily overlooked. The required density of 0.1 gpm/ sq. ft. for a system based on NFPA 13 requirements is double the 0.05 gpm/sq. ft. density required by NFPA 13R. The key parameter that effects both the spacing of sprinklers and minimum size of pipe needed is the discharge rate described in section 11.3.1.3. This section can be somewhat confusing and essentially requires that the discharge from the four adjacent sprinklers in the dwelling be the greater of the following:

- 1) Minimum Flow Rates indicated in individual listings
- 2) Calculate a minimum of 0.1 gpm/sq. ft. over the design area in accordance with 8.5.2.1 or 8.6.2.1.2

Compliance with the minimum flow rates required based on the individual listing area is easy to confirm but the starting pressure may not be sufficient to meet the NFPA 13 density requirement of 0.1 gpm/sq. ft. in larger rooms. The second requirement of section 11.3.1.3 is split into two separate conditions, and if used properly will help with determination of pipe sizing and needed starting pressures.

The first condition applies to rooms greater than 800 sq. ft. in area. In these cases, the protection area of coverage per sprinkler is determined multiplying the spacing between sprinklers along a branchline by the spacing between branchlines (S x L or length x width). Yet the second condition involves rooms 800 sq. ft. or less in area. In these cases, sprinkler protection area of coverage is determined using the small room rules, and is determined by dividing the area of that room by the number of sprinklers in the room. The second condition is very helpful as most of dwelling

continued on page 13

units have an open kitchen, living room and usually some corridors that need to be protected. The sprinklers in the corridors leading to the bedrooms are often small and when the total space is divided out by the number of sprinklers the average area is much lower than what is needed for the sprinklers determined based on the S x L rules as are required in the large open areas. I have found that if you use one of the higher listed sprinkler spacings, the required pressures will also meet the NFPA 13 requirement to provide 0.1 gpm/sq. ft., except in large rooms only requiring one sprinkler, e.g. 18 ft. x 18 ft. or 20 ft. x20 ft. In this case, you may want to include two sprinklers in order to minimize the the starting pressure for that area.

Other issues that are commonly overlooked in NFPA 13 sprinkler system designs for wood residential buildings involve, some not so obvious, combustible concealed spaces. One of the most common that I see is when there are upper lofts in structures. The areas under the stairs have no access and are considered to be large combustible spaces that require sprinklers. There are also many architectural features that have large concealed combustible spaces. The largest areas are typically the floor/ceiling assemblies which require protection utilizing interstitial space sprinklers. The use of these sprinklers also affects the sizing of the system piping since you need to include all sprinklers within a 1,000 sq. ft. area. When using interstitial space sprinklers there needs to be a lot of upfront discussions as to where other trades need to be located. When using CPVC piping in this space the piping needs to be installed low, within 6 in. of the ceiling or insulation. The deflector of the interstitial space sprinklers need to be within 4 in. of the floor above. The most common type of conflict involves strongbacks utilized for floor joists, which are not usually shown or detailed on structural drawings. At the start of the project, we specify that they should be 3 in. above the bottom member of the joists. That way our piping can run under them and the interstitial space sprinklers will have the clearance needed for spray pattern development. In addition, there are a lot of additional sprinklers required due to field duct work modifications needed to fit ducts within the available joist spaces. For large areas, a draft curtain is required if over 1,000 sq. ft. It is best to define the location of these draft curtains on the sprinkler drawings. Most architects are not aware of the added draft curtain requirements and they will not be shown on the architect's drawings. If you do not show the draft curtains on the sprinkler drawings, and coordinate where the draft curtain should be located, the framers will run it where they want resulting in the possibility of having to add a lot more sprinklers to the project.

The final issue involves attic spaces. There are a number of architectural/structural options and configurations that you will be dealing with and most are difficult and confusing. Unlike commercial projects, the residential structural framework seems to be continuously evolving with many changes or additions throughout

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the development of a project. Layouts can contain special attic sprinklers, interstitial space sprinklers, intermediate level sprinklers (with water shield) and standard spray sprinklers. The most important factor regarding the type of sprinkler you use for an attic is the structural layout. Understanding the width, height, pitch, and direction of trusses, as well as the location and configuration of cross-bracing is essential in the design. The structural layout will give you an idea of what type of sprinkler would be best for your building.

If you have not used special application attic sprinklers, there is a tremendous savings in the amount of water needed for your attic design. For your first design using attic sprinklers, ask one of the manufacture's if they can lay out the attic for you or at least work with you to assist with a final design. Ask lots of questions as there are many obstruction rules that need to be followed. Some of the special application attic sprinklers utilize back-to-back or single directional sprinklers at the peak with special attic upright sprinklers near the ridges. In addition, hip sprinklers are used the end of buildings where the slope of the roof changes directions and hips are formed. A dry pipe system using attic sprinklers would require the calculation of seven back-to-back sprinklers and two attic upright sprinklers discharging a total minimum flow of 200 to 300 gpm. However, If your attic system has areas where there are more than four attic upright sprinklers in a single area you will only need to include up to 1,950 sq. ft. of area (attic upright sprinklers only) at a stating pressure of 7 psi.

Using standard spray sprinklers, a design area of 2,535 sq. ft. would be required due to increases for slope and use of a dry pipe system. In addition, if you spaced your sprinklers greater than 8 ft. on center in the direction perpendicular to the slope you would need to have a starting pressure of 20 psi at the most remote sprinkler.

Most of the special application attic sprinklers that utilize the back-to-back, single directional and hip type sprinklers are very similar in design as they utilize the same fire test procedures. Most differences are in the area of coverage per sprinkler. The size and layout of structural members will give you an idea of the best sprinklers to use. One item that I found quite different between the sprinklers offered by the different manufacturers is the placement of the single direction sprinkler. The Tyco and Viking single directional attic sprinklers are spaced 4 ft. 6 in. off of a shear wall or draft curtain yet the reliable single directional attic sprinklers are required to be placed 2 ft. 10 in. to 3 ft. 2 in. from the shear wall.

A consideration for minimizing the required system demand flow rates is to loop the system. The high line feeding the back-to-back sprinklers at the peak can be looped into the lower main feeding the lower attic upright sprinklers along the eave. There are a few ways to keep starting pressure down but use depends on the slope and size of the attic. If your attic roof has a slope less than or equal to 6 in 12 consider using the new Globe attic sprinklers. The Globe sprinklers use a new design concept requiring less flow (120 to 140 gpm) at a lower demand pressure. If the attic has a slope of 7 in 12 to 8 in 12, and the width of the attic is between 58'-0 and 70'-0 consider using the Reliable K=8.0 back to back sprinklers at the peak, with a coverage area of 40 ft wide. This sprinkler will discharge at 28 gpm at 12.3 psi in addition, Reliable attic upright sprinklers would be used to cover any additional area along the eave of the roof. Most measurements for the attic sprinklers are taken from the floor, however, the 26'-0 minimum distance between sprinklers is measured down the roof slope parallel to the roof deck. With half the distance of the back to back sprinkler equaling 20-0 and the Reliable attic upright sprinkler designed to spray 3 feet behind the head will give you a distance of 23-0, measured along the floor. Having a 7 in 12 roof slope the distance between the back to back sprinkler and the attic upright would be 26'-7 1/2" and would be greater than the 26-0 minimum between sprinklers. Even though the Reliable sprinklers can spray up to 70 feet, designing additional sprinklers along the eave will provide a reduced starting pressure and flow that could eliminate the requirement for a fire pump.

NFPA 13D and 13R were developed to provide life safety with the areas of protection being based on studies of where fires begin, and the means to have people evacuate safely, with less concern of property protection. When a fire breaks out in a building, outside of the areas of protection, society is concerned of the property loss and even more of the disruption to the occupants of these large facilities. Even though the NFPA 13D and 13R systems do their job and save people in these fires there are future changes to the codes that will require more designs to be done in accordance with NFPA 13.º

William (Willy) Roberts is the lead layout technician (designer) for Quick Response Fire Protection based in Freehold, NJ. Willy is a NICET Level IV engineering technician with approximately 30 years of work in the sprinkler industry. Much of Willy's work involves the design of sprinkler systems for large residential and multi-use complexes with and without wood construction. However, his work involves water-based fire protection systems in a variety of commercial and industrial applications as well. Willy is a member of the NFSA Engineering and Standards (E&S) Committee and provides valuable input on technical issues. In addition, Willy represents the E&S Committee as a member of the NFPA 13 (AUT-RSS) Technical Committee responsible for development of NFPA 13D and 13R.



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CODE CORNER

It's Not Your Father's Fire

by John Waters

John Waters is a long time NFSA member and fire sprinkler advocate. In April of 2018, John was brought aboard the NFSA team as a Field Service Coordinator for the Codes and Public Fire Protection department. John's experience as a Fire Chief and Chair of the Pennsylvania Home Fire Sprinkler Coalition is welcomed and will serve the fire sprinkler industry well. John is my guest as this month's contributor to Codes Corner.

–Jeffrey M. Hugo, NFSA's Director of Codes and Public Fire Protection



If a picture is worth a thousand words, then a You-Tube[©] video must be worth a million. A number of years ago, Underwriters Laboratory produced a visual representation of the difference between fires in the 1970's and those same fires today. It is certainly worth 5 minutes of your time. Go to YouTube and search "UL Legacy vs Modern."

Twenty years ago (1998), as part of an academic assignment, this author decided to look at fire department response times to determine apparatus and staffing needs in order to save lives. Those findings have withstood the test of time, as I believe the results are still valid today. The questions researched were:

- At which point does a fire in a structure become deadly?
- What would it take for the fire department to respond in such a manner as to apply extinguishing agent on the burning material prior to the answer defined in question 1?

The research included both descriptive research and time/motion studies of fire attack by an engine company. The results were unequivocal; the point at which a fire becomes deadly is flashover and the time to flashover, from flaming ignition, was about three to four minutes. The answer to the second question, concerning fire department response, is unlikely. It is unlikely that the fire department can garner enough resources to achieve agent application within four minutes of ignition.

As the sprinkler industry has several NFPA Codes to meet, so does the fire service. NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communication Systems mandates, in Section 7.4.1, that "95% of alarms received shall be answered within 15 seconds and 99% of alarms shall be answered within 40 seconds." Translated, this means that when you dial 911, you should hear "911, what's your emergency" from the operator within 15 seconds of the first ring.

Further, NFPA 1221 stipulates, in section 7.4.2 that "90% of emergency alarm processing shall be completed within 64 seconds and 95% of alarm processing shall be completed within 106 seconds." Translated, this means that after answering the 911 call, the fire department should be dispatched within one minute, four seconds, 90% of the time.

That's when the next standard kicks-in. If you're served by a career fire department, there are stipulations in the "gold standard" for fire department response, NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. Section 4.1.2.1, specifies that that apparatus should clear the bay door 80 seconds from dispatch (tones drop), the first-due engine company should have a travel time of no more than 240 seconds and the entire first alarm should be on-scene within 560 seconds from dispatch.

In the previously mentioned research, a time/motion study was conducted simulating a fire on the second story of a 2-story dwelling, that dwelling having a 35-foot front-yard setback. It was found that it took about 98 seconds from the application of the maxi-breaks on the engine to flowing water out of a 1-3/4 inch attack hoseline on the second floor

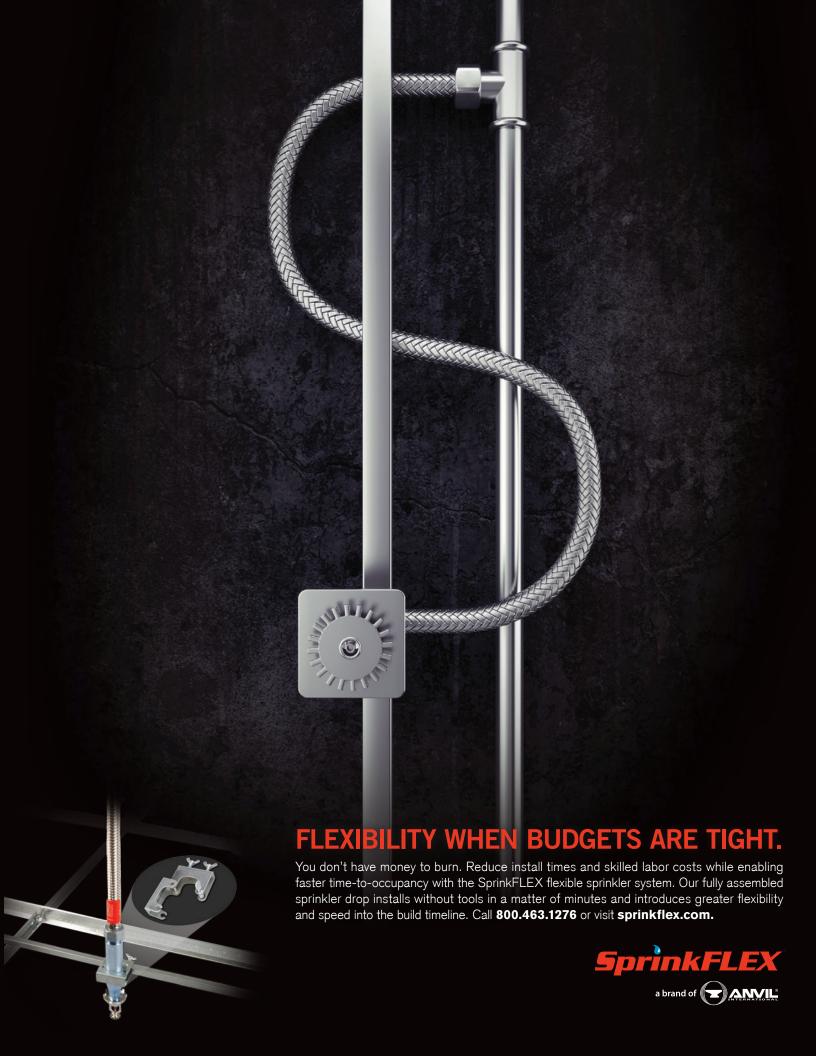
So, here's the synopsis for the gold-standards of fire department response:

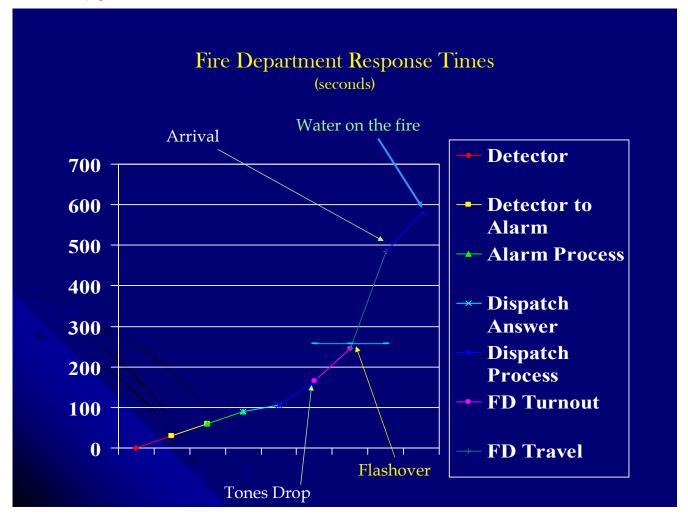
	Total	
15 second to answer	15 seconds	
64 seconds to dispatch	79 seconds	
80 seconds to hit the street	159 seconds	
240 seconds for arrival of 1st due	399 seconds	
98 seconds to get water on the fire	497 seconds	
Total 8 minutes 17 seconds		

This clock started when someone called 911 to report the fire, not ignition. It only gets worse when one figures-in the pre-911 call activity (see graph on page 18).

So, if fires have changed, shouldn't we change our entire concept of community fire protection? Should the fire department be our first-line-of-defense? Should the fire department be the first to put water on the fire? I think not. The most recent Wingspread Conference Report said it best when it's authors wrote "Automatic sprinkler use has the ability to solve much of America's fire problem in every class of occupancy" (p.15). Justifying that statement, the report goes-on to read "No other technology has the ability to impact the fire problem like the use of automatic sprinkler technology" (p.15). I think all of us can agree on that.

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John Waters currently works for the National Fire Sprinkler Association as a Field Service Coordinator. He started with NFSA in April of 2018, after a 35-year career with Upper Merion Township's (Montgomery County, PA) Fire and Rescue Services, where he served as Chief Fire Official for 29 years. He is holds a Bachelors Degree in Fire Science from the University of Maryland (1990), is a graduate of the National Fire Academy's Executive Fire Officer Program (2000) and holds two Masters Degrees, one from Grand Canyon University (2009) and the other from the Naval Postgraduate School (2013). He entered the fire service when he joined his local volunteer fire company, where he still serves, in 1971.

NOTE TO EDITOR:

Of interest to NFSA members, as the Fire Marshal for Upper Merion Township, I was successful in passing the following regulations:

1987 — All new construction, except 1 & 2 family dwellings, > 2,000 ft2 to be protected with automatic sprinklers.

1987 — retrofit of certain areas of high-rises – any commercial occupancy beneath a residential occupancy – within 7 years of enactment

1988 — all new housing starts, regardless of square footage, to be protected with automatic sprinklers

When I became department head in 1989, I was given responsibility for not only our Fire and Rescue Services, but for our Building Department as well, becoming one of the few Fire Chiefs to whom the Building Officials reported.

arrington, Inc. is a family owned business established in 1988 to provide large diameter water handling products to the fire industry. Hal Harrington introduced Storz connectors to the American fire market, which became the industry standard for 4" and 5" hoses. We are located in Erie, PA and supply products throughout the world. Specific to the sprinkler market, Harrington manufacturers a multitude of Storz adapters for FDC building connections, threaded adapters, and other water handling products. We manufacture in Erie, USA and also provide AWG Fittings, which are made in Germany.

Harrington manufacturers Storz and threaded adapters to meet any specification. In addition Harrington can supply gate valves, wyes, and other water handling products. We can ship quickly to expedite completion of building fire systems. We maintain the highest quality standards on our products, to enable the members to provide dependable long lasting sprinkler systems.

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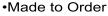


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The Suppliers' Showcase feature is available to any NFSA Supplier and/or Manufacturer member in good standing. If you are interested in having your company featured here, please contact Joanne Genadio at genadio@nfsa.org or 845.878.4200 x118. Features will be published on a first come, first serve basis.

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Matthew Maguire

Lower Merion Township Ardmore, Pennsylvania



An Open Letter from a Fire Chief to the Fire Sprinkler Industry

by Dan Jones, Fire Chief (Ret.)



Chief Dan Jones is a long-time champion for fire sprinklers and the fire sprinkler industry. His open letter to us will serve as one to get us thinking, will challenge us as he issues a plea to us to engage in new ways with promotion of who we are and the life-saving technology that is our essence. He did this last year when Common Voices visited Potter Electric in St. Louis. He challenged Potter to create shirts for all employees that read "I save lives" (and to Potter's credit, following the visit, they did just that). Thank you, Chief Jones for helping us realize that we truly do have a product that deserves promotion at the highest level. It's time for us to stand up and share our story! Vickie Pritchett.

s a career Fire Chief, I have been an active and public supporter of automatic fire sprinklers since the Phi Gamma Delta fraternity tragedy in 1996. I am a believer in the life-saving, firefighter-protecting, property-preserving and environmentally friendly advantages of fire sprinklers. I serve on the advocacy organization; Common Voices and I have friends in the fire sprinkler industry.

But...I have to ask all of you some questions.

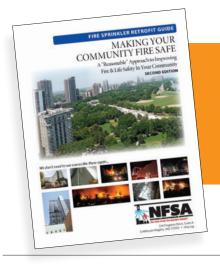
Why do you sit back and expect the fire departments to do your marketing and advertising? Why don't I see television commercials for fire sprinklers? Why do I not hear radio spots about fire sprinklers? Why are there no ads in popular magazines about fire sprinklers? Why are there no fire sprinkler ads in real estate sections of newspapers? Don't you believe enough in your product to spend money on advertising? I see advertising for carpeting, house paints, plumbing fixtures, windows, HVAC systems, water softeners, bathroom features, roofing materials and any variety of other home and building products. But fire sprinklers? Nothing!

I know, I know; I have heard the discussion in your industry that advertising would appear self-serving. Well, isn't all advertising self-serving to some degree? It doesn't seem to bother the smoke detector industry that advertises heavily and touts the potential life-saving aspects of their product, and yet your product is more assuredly lifesaving because it does not require persons at risk to take action to ensure safety. I think the reasons I have heard against commercials for fire sprinklers are lame!

The biggest problem we have in promoting fire sprinklers is education. Most policy makers, members of the public and people in the real estate business don't really understand what fire sprinklers do, how they work, the advantages they offer and what they cost in initial building. A concerted campaign effort by your industry would be key to overcoming that lack of understanding. There are way too many myths and bad information out there in the public domain about fire sprinklers to ever enable us to gain wide spread acceptance and, dare I say, demand for automatic sprinklers everywhere we live, work, and play, including at home. We need you, the fire sprinkler industry, to engage in this effort with commercial advertising.

I want you, as an industry, to be more aggressive in promoting your life-saving product. I have challenged some companies in your industry to even educate your employees to a greater degree about their involvement in saving lives. Make your employees advocates for fire sprinkler protection as well. Help them understand that they play a part, every day, in saving lives and property. That would be a huge boost to your employee's self-worth and morale and they can help educate others. Please let them know that their work is part of fire protection efforts to save lives.

Let's get back to the lack of advertising. There can be no incontinued on page 22



Check out NFSA's Fire Sprinkler Retrofit Guide at

http://bit.ly/NFSAretrofit



dustry related to homes and buildings that has access to more dramatic video proving the value of your product than the fire sprinkler industry. Anyone who has ever observed side-by-side burn demonstrations can attest to that. You also have access to overwhelming data about the effectiveness and reliability of your product. And, you have the testimonial of the Fire Service, one of the most trusted public institutions in our society at your disposal. Surely you could find some room in your profit margins to fund an advertising campaign?

The NFSA and other organizations are doing all they can with the resources they have, but it will take much more to make the kind of impact I envision. It's time to create a marketing plan on how dollars will be used to promote retrofit and residential sprinklers and raise the money to do it!

Every time I see a major company television commercial for smoke detectors it irritates me because I want people to know that the greatest protection from fires is sprinkler systems. Your industry has the answer. So, what is it going to take to get you guys

to advertise the best fire protection technology available? You have to get into the public awareness, and the only way is through major advertising. You rely way too much on code enforcement to provide your business opportunities instead of promoting your business. Stop depending on us in the Fire Service to be your marketing arm. You can advertise as individual manufacturers or installation companies, or you can combine your dollars as an industry and advertise the product and its effectiveness. It matters not to me how you do it, but please do it! We will work with you to promote the life-saving advantages of fire sprinklers, but we need you to engage.

I want to see the day when every residential occupancy built and any facility that people work, study, have fun or spend time in is protected by fire sprinklers. I would think you would want to see that as well. It will take a greater public awareness campaign than we have ever seen before to achieve that goal. If my letter makes you uncomfortable, that's good! Comfort creates complacency, and your industry must become more proactive. I am waiting to see my first television fire sprinkler commercial. Don't keep me waiting too long. People are at risk and you have the answer. So, promote it! •



AGF Manufacturing Inc. Challenges Others to Give Back

by Jim McHugh, President,

AGF Manufacturing

For the member take over edition of National Fire Sprinkler Magazine I asked AGF Manufacturing, specifically Jim McHugh to submit an article. There are several reasons for my choice, such as their commitment to the sprinkler industry and great support as a member of NFSA. For me, it is their dedication to sprinkler contractors.

AGF does not sell directly to contractors, but through distributors. As a contractor, I have spoken to Jim and the AGF staff on several occasions with questions and product technical support. More than once they have offered to meet on location to assist with issues and solutions for troubled sprinkler systems. As you will read in the article, AGF is involved in their community as well as several charities. Vince Powers



It was a very wet bike ride in May, but AGF employees and their families braved the torrential rain to participate in the Eagles Autism Challenge, a 15-mile charity bike ride. Funds raised by AGF went directly to Children's Hospital of Philadelphia, Drexel University and Thomas Jefferson University in support of a collaborative effort to make a lasting impact on the field of autism research. The suc-

cess of the team deepened AGF's long standing commitment to philanthropy and served as the catalyst for AGF Manufacturing's new Charitable Outreach Program.

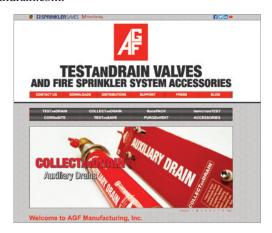
"We are enthusiastic to take our collective philanthropy to the next level and really harness our power as a company to make a difference. Together, we inspire each other, connect with our communities and families, and elevate the way we relate to one another. I look forward to continuing to help charities and causes that are important to our employees and the community where we live and work," said Jim McHugh, AGF's President.

AGF has been a long supporter of industry specific charities including Common Voices (www.fireadvocates.org) and Burn Survivors Foundation (www.burnsurvivorsfoundation.org), and will continue outreach and education programs. AGF is launching an initiative to promote residential sprinklers and leading an effort to standardize and assist with educational displays. We will continue to donate RiserPACKSTM for side-by-side burn trailers demonstrations and currently offer education programs about

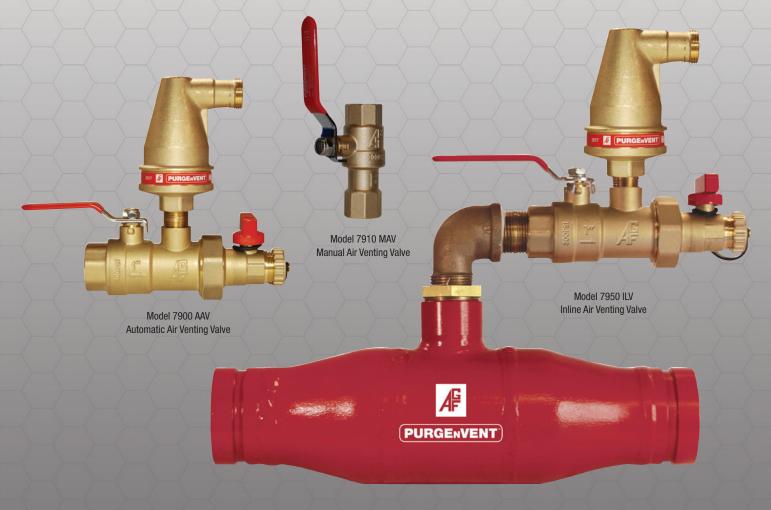
the use and application of fire sprinklers for local fire companies.

As a second generation, family-owned, domestic manufacturer, AGF has always had a strong connection to the local community in Malvern, Pennsylvania. For over 15 years, AGF has utilized Baker Industries for assemble of select products. Bakers Industries (www. bakerindustries.org) provides work programs for people who are disabled, experiencing homelessness, recovering from substance use or are on probation or parole. AGF also assists with logistics and shipment of donations for Amigos de Jesús (www.amigosdejesus. org) a Malvern, PA based charity that provides a home, education and financial support for over 400 children in Honduras, Guyana, Tanzania and Argentina. AGF has also been a long supporter of The Andrew L Hick Jr. Foundation that engages West Chester, PA area teens to provide mentoring and enrichment opportunities that inspire at-risk Chester youth to be confident, hopeful and successful social entrepreneurs. (www.andrewlhicksjrfoundation.org)

AGF employees and their families are given the opportunity to volunteer and are empowered to make a difference in their community. We would like to encourage and challenges other companies to get involved with these or other non-profits within your area. Please follow AGF on social media to learn more about our company's Charitable Outreach Program and to support our efforts. Charity requests for risers or other AGF products for education and outreach purposes can be emailed to Ellen Davis at edavis@testandrain.com. •



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To help prevent corrosion NFPA 13 standard requires the venting of excess air from wet fire sprinkler systems. AGF PURGENVENT Air Venting Valves are designed to purge air from the system while it is being filled and vent excess air while the system is in operation. PURGENVENT Air Venting Valves also act as a vacuum break when draining the system. Help prevent corrosion by installing PURGENVENT on all of your wet fire sprinkler systems.

www.purgenvent.com

FEATURE TAKEOVER

Thanks to all who contributed to our member takeover issue! Readers-feel free to reach out to the contributors with questions, opinions and comments.



FlexHead® Systems Help Cut New Office Development Schedule by 75%

It isn't often a developer/project management company can implement goals and even perhaps controversial ideas they have recommended to clients, but that have never left the conference room. But that's what Leggat McCall Properties was able to do for themselves. When it came to fitting out their new offices, the Boston-based company saw a prime opportunity to apply their own best ideas with others they'd come across, and to substantiate their effectiveness.

Their goals were to challenge traditional construction standards, compress the conventional 10- to 12-week schedule down to just 15 days, and to do so within 10% of traditional costs without compromising quality.

According to Eric Sheffels, Leggat McCall Properties President and Chief Investment Officer, "These goals were achieved through good preconstruction and precise implementation that embraced new technologies, green development techniques, aggressive benchmarks and built-in flexibility for future reconfigurations. We streamlined the design and construction processes by eliminating antiquated and unnecessary steps. The primary enabling technology was an innovative palette of materials."

This palette included FlexHead flexible fire sprinkler connections.

"We wanted to use FlexHead because they make sense across their whole lifecycle," explains Karl Neubauer, Leggat McCall Properties' senior project manager, "and they're consistent with the green objectives we had of achieving LEED Gold status."



100% Roughed-in and Out of the Way on Day 4

Essentially, the new office space was a white shell with minimal sprinkler coverage. Leggat McCall wanted to use the landlord's system, so first they confirmed that the mains and laterals were properly sized.

"Our idea was to install threaded Ts between the existing sprinkler heads so that we could just screw FlexHeads onto them and be done with it," Neubauer recalls. "Put simply, our goal was not to have a pipe-threading machine on the job. While we didn't quite get there, on Day 4, we were 100% roughed for our sprinkler system."



"The FlexHeads were wired up and out of the way, waiting for the ceiling grid. Later, when it was in place, we just dropped the FlexHeads down and connected them to the grid."

Getting FlexHead connections set to go and out of the way so quickly had several benefits. "That's multiple guys that you don't have up on ladders, getting in the way when you're trying to do other stuff quickly," he notes. "Plus, you want to do just one draindown, put all these FlexHeads on, tie them up and out of the way, and let them sit there until the ceiling grid comes."

"If we did conventional pipe, we would have had more shutdowns, which would have cost us more money because the landlord charges every time you do that. Also, we would have wasted water. We're trying to do a sustainable LEED project, and every time you drain down the system, you're dumping water down the drain, which we didn't want to do."

Innovative Thinking Results in a 10,000-foot Fit-Out Completed in 15 Days with No Cost Premium

Slash Reconfiguration Time and Cost

Although Leggat McCall doesn't expect to reconfigure the offices any time soon, they did study what it would take, since one of

continued on page 27





Best Solution for Grooved Piping in Warehouse Fire Systems

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FEATURES

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their goals was to make almost everything reusable.

"We wanted to know how much it would cost and how long it would take if we combined two offices into one," Neubauer explains. "Because we can reuse just about everything, we estimated that it would cut costs by 80% and time by 75%. Reconfiguring the sprinkler system is part of that. If I were a landlord, I'd have FlexHead as a building standard because it's an investment in my building that I can reuse over and over again. If you buy it right, there's a first-cost advantage."

In many ways, the 15-day project was a test ground for products, techniques and ideas. So Leggat McCall kept close track of the experience, from specifying and bidding through installation and completion.



"We bid the job both ways, and FlexHead came in a little higher than hard pipe, but not much," Neubauer says. "When we bid it, we had the subs break out the labor and material. Commodore tracked actual labor over the course of the project." "It took them less time than anticipated, and they made some money on us, shame on us!" he laughs. "So, you can see where the trend is going, and if you buy it right, there's a first-cost advantage as well as a lifecycle advantage to FlexHead."

With FlexHead they only had to do one drain-down, saving time, money and water. Saving water is consistent with green objectives and the project achieved LEED Gold Status.

FlexHeads were installed, tested and out of the way so that the other trades could work without worrying about sprinkler piping or contractors getting in the way.•

U.S. and international patents pending: #6,123,154, #6,119,784, #6,752,218, #7,032,680, #6,488,097.

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NESM

Engineered Corrosion Solutions' Ivonne Artica Shares a Recipe!

It is fun to work at Engineered Corrosion Solutions with Client Services Manager Ivonne Artica! Ivonne is responsible for Analytical Services and works with fire sprinkler service managers, contractors, and owners to determine risk for and causes of failure in fire sprinkler systems. Ivonne loves discussing corrosion, remediation, and corrosion prevention with clients who send pipe samples to ECS for Corrosion Analysis. She is always happy to share her more than ten-year industry experience and is always looking to learn more. If you detect an accent, perhaps not from St. Louis, ... Ivonne has shared a favorite family recipe to give you a hint.



"Rahm & Pfirsich Schweine Medallions"

In the USA my family refers to this recipe as "Georgia Pork" because of the Peaches and Cream component. It is always a hit, even with some of my pickier eaters. It's very rich, therefore I make it only occasionally, as in maybe twice a year!

INGREDIENTS:

- 2 x Medium Pork Tenderloin
- 1 Large can of Peaches in water or juice (drain) (or 1 pound fresh) sliced thinly
- 2 Large Yellow Onions (Halved and sliced)
- Basmati Rice (or whatever rice you have on hand... though I prefer a longer grain, it looks better)
- Cilantro (or not)
- Heavy Whipping Cream (2 cups) (substitute Half and Half if desired, though trust me... use the heavy cream, you only live once.)
- Freshly Cracked Black Pepper
- · Large Pan, Large Bowl

INSTRUCTIONS:

- Slice Pork Tenderloin into approx. 1/2" thick slices
- Salt and Pepper both sides



- Sear in hot pan on both sides, cook through (add olive oil to prevent sticking)
- Work in batches (set aside in bowl)
- DO NOT CLEAN PAN, lower heat to medium
- Add sliced onions to pan and sauté until golden and slightly caramelized (add butter or olive oil if onions stick)
- Set onion aside in bowl (yes, right in there with the pork)
- DO NOT CLEAN PAN
- Add sliced peaches and sauté until slightly caramelized
- Add Pork and Onions back to the pan (told you to get
- · Add heavy whipping cream to pan
- Simmer slowly to reduce to a lovely creamy consistency
- · Season with freshly cracked black pepper
- Serve over Basmati Rice and sprinkle with Cilantro (or not if you don't care for Cilantro)

If you have a pipe sample with corrosion, Ivonne Artica can be reached at 314-432-1377. She may even share another recipe with you. Guten Appetit!



Sprinklering North America's Largest Bored Tunnel-Anything But Boring!

By Gary Barber

When an aging viaduct directing traffic around the City of Seattle was deemed too prone to earthquake damage to carry its usual 110,000 vehicles per weekday, the solution was to build a two-and-a-half mile tunnel under the city, creating a more direct path for State Route (SR) 99. As with the area's other major transportation project, the SR 520 floating bridge,



Reliance Fire Protection of Seattle, Washington was selected to design and install the fire protection system.

As of this deadline, the tunnel is nearing completion and all systems are currently being tested. Here are some interesting facts about the project:

- The project is North America's largest bored tunnel, dug by the world's largest boring machine Bertha (who had her own Facebook page).
- There are 8.3 miles of heat sensors to provide the first warning of a fire.
- 300 cameras will aid in locating a fire.
- The deluge systems were designed to achieve 0.30 gpm per

- square foot with two systems operating simultaneously. Approximately 6,400 gallons of water was disbursed during the two-minute pre-test (http://bit.ly/tunnelsprinks). Calculations were performed during the initial design of the roadway to ensure it was strong enough to handle the weight of the water during an incident.
- The fire protection systems contain more than 24 miles of piping serving 208 deluge systems, 17 wet pipe systems and two dry pipe systems.
- 3.8 miles of drainage pipes shuttle the water to a sewage treatment facility.
- A sophisticated venting system is designed to clear away smoke.
- Reliance Fire Protection worked on the project for approximately six years.
- Major suppliers include NFSA member RJB Wholesale, Anvil International, Viking SupplyNet and Gem Fabrication.
- The public will have an opportunity to walk through the tunnel during opening events scheduled for late October.

Gary Barber is a Project Manager with Reliance Fire Protection in Seattle, Washington.

[See Photo Feature on page 70]



CST Industries Celebrates 125 Years in Business

Submitted by CST Industries, Inc.

Celebrating 125 years in business is an impressive achievement for a company that works within the extremely volatile, challenging and ever-changing industrial manufacturing industry, but that is exactly what CST has done.

The History

In 1893, the Columbian Steel Tank Company, as CST was originally named, was founded by Andrew Kramer of Kansas City, Missouri, as a fabricator of livestock water tanks.

Over the years, the company has increased its market share and become the industry leader in both storage tanks and aluminum domes. Since the early days of serving the livestock industry, CST has evolved and grown its range of products and now works in no fewer than 15 industries: municipal water & wastewater treatment; industrial water; fire protection; upstream & downstream oil & gas; petrochemical; food & beverage; pet food; plastics; mining; cement; aggregates; agriculture; architecture and bioenergy.

CST Industries is the result of several strategic mergers and acquisitions over the past 125 years, including Trico Industries,



Black, Sivalls & Bryson (BS&B, later renamed Peabody TecTank), A.O. Smith Harvestore, Harvestore Products Group, (later renamed Engineered Storage Products), Conservatek and Temcor; a dynamic combination of the world's leading factory coated steel tank, aluminum cover and dome companies.

Led by Innovation

Tim Carpenter, CEO of CST Industries, Inc. stated, "Innovation has always led the company and our dedication and drive has brought many firsts to the industry. Part of what allows us to lead with innovation begins with a global footprint. We are tied very well to mega-trends driven by population growth in the areas that we operate. Many countries need to improve infrastructure to advance the quality of living and can do so via our current industry leading product portfolio and ability to innovate new solutions to meet customer needs."



The Products and Industries They Serve

The company's range of iconic products include, but are not limited to: TecTankTM liquid and dry bulk bolted storage tanks; OptiDome®; Aquastore®; Vulcan; Harvestore® and Slurrystore® structures.

"Our products are about improving the customers' value proposition. Just over the past few years, the company has launched products driven by customer need that include the TecTank FP® – a customer driven solution that installs faster and last longer for dry bulk storage, Edgecoat II^{TM} – the only tank coating process in the world offering a 360-degree coating solution of tank panels and the OptiDome system – a flush batten sealed dome with a dual-web I-beam, Harvestore Raptor Series Premium Unloader Cutter and Conveyor Chains – designed with alloy bushings for maximum strength, new technologically advanced Harvestore Breather Bag and XL Unloader Gearbox," said Tim.

Along with pioneering coatings for tanks in 1893 and enameling glass-fused-to-steel technology to tanks in the 1940s, the company also owns the achievement of being one of the first to factory-coat tanks with epoxy in 1978 (Trico Bond 478). Through decades of research and development, CST developed Trico Bond EP®

and Trico Bond SDTM coatings and engineered the OptiBondTM Epoxy Coating process, now proven through years of in-field experience and performance data. Together with CST's VitriumTM glass coating, the company offers coating solutions that provide owners' peace of mind by ensuring the coating protecting their assets will have a long life and serve with distinction.

Company History Shapes Culture

"As a large global company, it is important to ensure all staff, wherever they are based, are aware of the CST company ethos alongside its business practices and processes. To achieve this the company relies on CST+ Business Process – the heartbeat of our business." Tim said, "We train and develop our team members on the tools and processes of CST+. Our culture is a 'people first' approach as we truly believe that we are only as strong as the people that make up CST."

CST's company culture focuses on continuous improvement, exceptional results for all stakeholders and development of highly capable teams. Tim attributes much of the company's success to its "highly valued elite team of representatives, authorized dealers, strategic partners, dedicated customers and employees. Our 'people first' approach has bred a culture that focuses on continuous improvement, exceptional results and development of highly capable teams. CST's solid market position, impressive product offerings, and use of innovated technology continues to set benchmark standards for the storage tank and dome manufacturing industry. We are forward-focused and look forward to our next era of success as a company."

CST has five manufacturing facilities, technical design centers and multiple regional sales offices located throughout North America and the United Kingdom. International offices are located in Argentina, Australia, Brazil, India, Japan, Malaysia, Mexico, Singapore, Spain, United Kingdom, United Arab Emirates and Vietnam. It currently has an installed-base in more than 125 countries and plans to work in many more, something that could be achieved by future acquisitions. •

For more information visit www.cstindustries.com



Tamarac Neighborhood Stabilization Program Home Sprinkler Project

By Tommy Demopoulos

The Neighborhood Stabilization Program 3 (NSP 3), authorized by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (H.R. 4173) is a program designed to further address the national foreclosure crisis through the provisioning of funds to



eligible local governments to purchase abandoned and foreclosed properties. The City of Tamarac's Neighborhood Stabilization Program (NSP3), is designed to provide eligible first-time homebuyers with the opportunity to purchase recently acquired and rehabilitated foreclosed single-family homes from the City.



Sheila Garcia.

The City of Tamarac has been involved with the Neighborhood Stabilization Program since 2011 and has completed 11 homes within that timeframe. Around September of 2015, the city purchased the property pictured in this article as part of the NSP grant funding, and that is when conversations about residential fire sprinklers began. The Fire Prevention Team saw this as a perfect opportunity for the city to pilot a home using residential fire sprinklers. After a few meetings with the City's Community

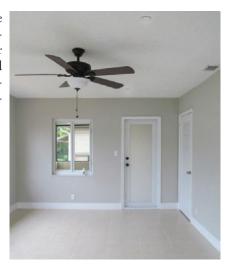


Development Director and the Housing and Neighborhood Programs Manager on the advantages of this life saving system, they agreed to use this home as the first ever pilot for residential fire sprinklers.

The City solicited bids from many certified fire sprinkler contractors and eventually awarded the job to Wayne Automatic Fire Sprinklers, Inc. The job consisted of nine concealed residential type fire sprinklers tied directly into the domestic water supply as allowed in National Fire Protection Association (NFPA)

13D, which is the Standard for the Installation of Sprinkler Systems in One- and - Two Family Dwellings and Manufactured Homes.

 According to the U.S. Fire Administration. deaths in oneand two-family residential building fires accounted for far more deaths in



most years than all-natural disasters combined from 2013 to 2015 (Topical Fire Report Series, One and Two Family Residential Building Fires, 2017).

- From 2013 to 2015, an estimated 243,700 one- and two-family residential building fires were reported to fire departments within the United States each year. These fires caused an estimated 2,175 deaths; 7,575 injuries; and \$5.3 billion in property loss (Topical Fire Report Series, One and Two Family Residential Building Fires, 2017).
- There is a 90% chance of surviving a fire where fire sprinklers and hardwired smoke alarms are present (U.S. Experience with Sprinklers, National Fire Protection Association report, 2017).
- Only one sprinkler head operated in 88% of home fires with operating sprinklers (U.S. Experience with Sprinklers, National Fire Protection Association report, 2017).
- Florida State Statute 627.0654 requires a premium insurance discount for the installation of fire sprinklers.
- Supported by the International Association of Fire Chiefs, Florida Fire Sprinkler Coalition, National Fire Sprinkler Association, and Florida Fire Sprinkler Association.

Tommy Demopoulos, CFPS, CFEI, CFPE, FO, FM Assistant Fire Marshal Tamarac Fire Rescue 6000 Hiatus Road, Tamarac, FL 33321







How Many More?

By Pam Elliott

Part of my morning routine involves glancing at the news to see what has happened in the world before I get ready for work. My heart ached as I read of yet another house fire involving the deaths of children. In this fire, six children died and three were severely injured.

The article describing this fire stated the fire service answered the call at about 12:30 a.m. [According to National Fire Protection



Association (NFPA), fires that occur between 11:00 p.m. and 7:00 a.m. account for 52 percent of all home fire deaths.] A neighbor who ran to help said he could not because the fire was so big and hot. He heard the kids crying for help but he knew he could not save them "because there was just too much fire." The children who died were two boys, ages 9 months and 2 years; 3-year-old twin girls; and two girls, ages 10 and 11. The article also stated, "The fire was so hot that it melted parts of a car that had been parked in front of the house."

I cannot imagine what that family is going through and how they will feel for the rest of their lives. They, their friends, the community and the firefighters on the scene will never fully recover from this tragedy. Think about the emotional consequences the neighbor will have for the rest of his life after hearing the children's cries for help.

I was five years old when I was burned in a house fire in 1959. A stranger who saw the fire from the highway saved me, wrapped me in his jacket and rushed me to the hospital. I had third-degree burns on half my body and spent more than a decade undergoing reconstructive surgery.

We have a fire problem in this nation and it involves our homes. According to the NFPA, 93 percent of all structure fire deaths resulted from home fires. If we, the citizens of the



United States of America, want to decrease the home fire death rate, it is imperative that we make improvements in home safety by adding automatic fire sprinklers to all new home builds. No strategy has as much documented life-safety effectiveness as fire sprinklers. Each sprinkler is individually activated by heat from a fire and only the sprinkler closest to the fire activates, preventing the fire from becoming deadly. The quick response of a fire sprinkler allows everyone time to escape, thereby saving lives.

There is a reason that fire safety organizations are calling for the mandatory installation of home fire sprinklers in new homes. Homes with automatic fire sprinklers cut the risk of dying in a house fire by 82 percent. According to the National Institute of Standards and Technology (NIST), a fire can become deadly in less than three minutes. That is because contents in our homes are made of synthetics that can cause everything in a room to become involved in flames and cause billowing, poisonous smoke. Newer homes are often designed with more open space and are made of lightweight materials that can fail sooner in a fire compared to traditional lumber.

NFPA data shows that people at highest risk of dying in a house fire are infants, children, older adults and people with disabilities. These populations can have difficulty hearing or waking to smoke alarms and difficulty reacting quickly and effectively enough for a safe escape. Their lives depend on stopping the fire early in its development; otherwise, serious injury and/or death will occur. Remember, most fires become deadly in as little as three minutes, and most fatal fires occur at night, between 11:00 p.m. and 7:00 a.m., like the fire that took the lives of the six children.

Home fire sprinklers are effective whether or not the occupants have appropriately responded to the smoke alarm. Fire sprinklers make up for human error, and they provide a lifesaving cushion for a time-consuming escape. In the 30 years that Prince Georges County, Maryland had fire sprinkler requirements for new homes, not a single person has perished in a home protected by a properly installed fire sprinkler system. Imagine the number of lives, as well as the pain and suffering of those left behind, that could be alleviated if the United States follows that lead.

Builders claim fire sprinklers add too much cost to a home, yet according to the Fire Protection Research Foundation, sprinklers cost \$1.35 per sprinklered square foot or roughly 1.5 percent of the total building cost. Direct damage from house fires costs \$6.7 billion. If calculated by today's standards my hospital bill alone would have been \$400,000. The hospital bill is only the tip of the iceberg.

The death of the six children is a very sad reminder of the speed and deadliness of a house fire, regardless of the age of the home. Although it may not be realistic for all existing homes to be retrofitted with fire sprinklers, it is realistic to believe all new home construction can be protected with fire sprinklers. Every time a home is built without a fire sprinkler system, occupants and firefighters are put at risk. Generations of families miss out on the ultimate protection from fire.

I cannot help but hear the screams for help from those children. How many more have to die or be severely injured before we as individuals, communities, organizations, homebuilders and/or the government wake up and take action to prevent stories like this from happening again?

Wouldn't it be incredible if we would speak up and ask for what is most safe instead of looking for the least expensive option?•

-Pamela Elliott R.N., B.S.N.

Burn survivor from a house fire and fire safety advocate.

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Ferguson Fire & Fabrication Exploring Innovations in Pipe Fabrication

Submitted by Ferguson Fire & Fabrication

With tight installation schedules, there is little room for unexpected hurdles for fire protection contractors. One of the keys to achieving a smooth installation is quality pipe fabrication, and Ferguson Fire & Fabrication has been looking for ways to innovate the traditional fabrication process.

And nothing says innovation quite like a robot.

In Mansfield, Texas, Ferguson Fire & Fabrication is piloting their first-ever fabrication robot, which works in conjunction with their human fabrication team.



"We are looking for ways to invest in fabrication technology that increases productivity," said Steve Sharp, Ferguson Fire & Fabrication's area fabrication manager. "The robot we are piloting is able to make cuts and welds more precisely with fewer errors. Both quality and accuracy are improved."

The robot works by grabbing the pipe loaded by an associate, pulling the pipe into position, cutting the first hole and welding a grooved or threaded outlet into place. After all the welds in the piece of pipe are complete, the robot initials the pipe and moves it down the line, where an associate ensures it meets quality control standards.

Ferguson Fire & Fabrication performs their own research and development in-house for the robot, continuing to evolve the prototype in hopes of one day perfecting a piece of equipment they can remanufacture and roll out to other locations.

In conjunction with their robot research, the distributor has also been doing its own programming for a software that accepts design files from most CAD program to speed the process by which stocklists get into their schedule.

"It reduces errors related to stocklists and cutlists, ensuring we hit our customer's Pipe on Job (POJ) date," explains Mike Maxwell, a sales operations analyst.

The software also allows for easy pipe organization, bundling and labeling pipe based on each unique job, which reduces time spent on the job site shuffling pipe around.



"One of the most important things to a sprinkler contractor is the timeliness that you deliver on a job," explains Jim Bosomworth, Ferguson Fire & Fabrication's national sales manager. "There is a small window of opportunity for them to install a really unique system designed exactly for that building. Our job is to get them what they need the moment they need it."

Bosomworth notes that finding ways to save a contractor time and labor hours doesn't just occur on the front end of a project. Improving fabrication up front prevents labor costs that could accumulate later in the project, particularly with installation.

"If you look down and see pipe that isn't straight and has weak welds, you know it might not be a smooth installation," says Bosomworth. "Even worse, if testing reveals leaks or other issues, you'll end up spending more time going back to your fabricator to fix the problem and retesting."

For Ferguson Fire & Fabrication, maintaining ISO 9001:2015 certification at over a dozen of their fabrication facilities has helped with accuracy and quality assurance. The certification requires the distributor to follow certain procedures and processes that ensure consistent quality, and any deviation from those standards must be investigated and resolved.

"Our goal is really to find ways to save contractors those valuable labor hours and give them a competitive advantage," said Bosomworth. "Faster, higher quality fabrication means fewer issues, quicker testing and commissioning, and getting the job finished quicker."•







Not Every Dry Pipe and Pre-Action System Is A Good Fit for Nitrogen

Submitted by General Air Products, Inc

A nitrogen generator is an exceptional piece of technology for fire sprinkler systems... when installed in the right application. Corrosion science tells us that maintaining pipes with 98% nitrogen can increase the life of your pipes. In black iron pipes, nitrogen can increase life up to 60 years. In galvanized pipes, nitrogen can increase life up to 100 years. But is a nitrogen generator the right fit for every dry pipe or pre-action sprinkler system? The answer is no.

There are many factors and alternatives to consider.

Every system is different. The honest answer is that not all sprinkler systems will be best served with a nitrogen generator. Dry pipe system filling solutions like compressed air or dry air will often make for a better solution.



At the end of the day, the best decision involves matching your system with the right piece of equipment. Doing that effectively means keeping all options in mind, weighing the issues of the system against the pros and cons of the available solutions.

So, does a nitrogen generator make the most sense for your fire sprinkler system? Here are a few practical questions you can ask yourself when considering a dry pipe sprinkler filling solution like nitrogen:

What is the Intended Lifespan of the Building? This is an easy one. Is your building intended to be around for the next 60-100 years? If your answer is a no, does an investment in maintaining 98% nitrogen make the most sense? It may be time to consider other, less expensive alternatives. Remember, making 98% nitrogen is easy – maintaining 98% nitrogen for 60 or 100 years is not. Also, that job falls to the contractor and the facility manager!

Does the Facility Have Proper Fire Sprinkler Maintenance Practices in Place?

This is the most important question here – and with good reason. A nitrogen generator is a much more sensitive piece of equipment compared to the more durable fire protection air compressors. If a facility owner or manager neglects their sprinkler system to the point that it's unusually leaky or problematic – to the point that they are regularly burning through air compressors quickly - the situation will only get more expensive by adding a nitrogen generator to the mix. Remember, nitrogen generators are not a miracle cure Maintaining 98% nitrogen on a dry or pre-action sprinkler system takes regular maintenance on the unit, and the sprinkler system as a whole.



Does the Cost of Replacing Pipe Really Exceed the Cost of Investing in and Maintaining a Nitrogen Generator?

Do the analysis. Run the numbers. How much does replacing pipe due to corrosion really cost your business? But keep in mind, you will have new maintenance expenses to factor in to properly maintain 98% nitrogen. An example of where nitrogen generators do make the most sense is when a facility is forced to shut down production or a high value operation in order to replace corroded pipe. This creates additional opportunity cost that may make the investment in a nitrogen generator make sense. However, if you can relatively easily replace your pipe, with minimal disruption to your business, the benefit of investing in a nitrogen generator may never be realized financially.

Another important perspective to keep in mind is that dry pipe style sprinkler systems have been a part of the industry for more than 60 years and that the corrosion issues, as they are currently described, have only recently been a part of the conversation. One conclusion to draw from this is that a focus on good installation practices like proper pitch (NFPA 13 8.16.2.3.2) and the correct use of low point drains (NFPA 13 8.16.2.4.1) will mitigate the vast majority of corrosion in sprinkler systems. Proper installation with a good corrosion monitoring system is often an ideal, cost effective plan for dealing with corrosion.

The bottom line is there's not often an easy answer when it comes to deciding to move ahead with the investment in a nitrogen generator. Some of these questions can (and should) lead to more questions. Nitrogen Generators are an exceptional piece of technology for fire sprinkler systems, no doubt – but ensuring they're the right fit for your system is key.

General Air Products offers free consultation and training to help you decide.

General Air Products is here to help. We've been filling dry pipe sprinkler systems for over 60 years with every piece of technology available. We also have a fully equipped training facility in Exton,

continued on page 36

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Pennsylvania, and offer free on-line or on-site classes. Our training room features a variety of fire sprinkler products from many manufacturers in the fire protection industry. We review best practices for installation, inspection, testing, troubleshooting and maintenance processes and also help build awareness of the latest fire sprinkler issues, code changes and new product solutions. Our goal is to see you fit with the right piece of equipment for every application. Insert Training Pic-caption "General Air Products Training Session".



From Fighting Fires to Fighting for Sprinklers

By Mark Knurek

Derrick Sawyer learned the value of fire sprinklers in the most tragic way possible.

He was a Philadelphia firefighter on Feb. 23, 1991, when One Meridian Plaza, a 38-story office building downtown, caught fire.

Three firefighters were killed and 24 were injured fighting a fire that burned for more than 19 hours. The blaze gutted eight



"The Meridian fire killed three of our members in the line of duty and 10 sprinkler heads did what 300 firefighters couldn't do," said Sawyer, who rose through the fire department ranks to become Philadelphia Fire Commissioner.

Sawyer left the commissioner post in 2016 and is now leading the fight for sprinklers as the head of the National Fire Sprinkler Association (NFSA) campaign to require sprinkler retrofits in residential high-rises.

The Meridian fire caused Philadelphia and other metro departments to reevaluate how they fight high-rise fires. It also spurred cities to pass ordinances requiring sprinklers in new construction and retrofits for older commercial buildings.

However, for a variety of reasons, most cities have not required the same protection in residential high-rises, even though they pose the same dangers. Consider these cases from the last few years alone:

- Grenfell Tower, London, 24-story public housing building, no sprinklers – 71 fatalities
- Marco Polo, Honolulu, 36-story condo tower, no sprinklers –

4 fatalities

- Midtown Towers, Pittsburgh, 18-story apartment building, no sprinklers – 1 fatality
- Trump Tower, NYC, 58-story apartment building, no sprinklers – 1 fatality



"How did we fall behind and concentrate on smoke alarms and not fire sprinklers and not make sure those residential high-rises were sprinklered the same way the commercial buildings were?" Sawyer asked. "Unfortunately, in the fire service, people don't make changes until people die."

As leader of the NFSA's retrofit campaign, Sawyer is trying to make sure no one else dies because a residential high-rise lacks sprinklers. The industry group last year published a new edition of its Fire Sprinkler Retrofit Guide, a resource for metro fire departments interested in passing retrofit legislation.

NFSA President Shane Ray said Sawyer's success in drastically reducing fire deaths while commissioner initially drew the organization's attention. "We wanted someone with instant credibility and someone who could establish relationships with these large metropolitan departments," he said. "Derrick does that."

The new job requires a different mindset and timeframe than firefighting did, Sawyer said.

"When you go to a fire, it's instant gratification," he said. "You put the fire out, make sure everyone is out safely and it's done. When you're dealing with codes and ordinances, you have to develop buy-in, you have to reach out to all the pertinent people involved ... it doesn't happen overnight.

"The end goal is just as rewarding as putting out a fire, but it takes longer to get there," he said.

The Honolulu fire is a case study in how hard it can be to pass retrofit requirements, even in the wake of a tragedy. Immediately after the July 2017 blaze which left four people dead, legislation was introduced to require sprinklers in older residential high-rises. But apartment building owners and condo owners protested the cost and the original bill was watered down.

The compromise ordinance, which was signed into law in May, gives incentives, such as tax credits and fee waivers, to condo as-



sociations if they retrofit. It also requires all buildings 10 stories or higher to undergo a fire safety evaluation within three years, then decide whether to install sprinklers or take alternative fire protection measures.

In Pittsburgh, it's been more than a year since a 75-year-old woman died in a fire in a high-rise not protected by sprinklers, but no legislation has been passed.

"That's discouraging," Sawyer said. "From a public safety perspective, I struggle with the fact that we haven't done a better job of protecting our communities when we have the technology to do it."

There have been successes, though. After a 2014 fire killed five high-rise residents, San Antonio lawmakers are requiring that residential towers be retrofitted with fire sprinklers. However, they have until 2027 to comply. Portland, Ore., now requires larger nightclubs to have sprinklers. Some smaller cities have passed laws requiring retrofits in historic districts.

The NFSA Retrofit Guide recognizes that passing legislation is a challenge. It includes everything a metro fire department might need to make its case, including statistics on fire sprinkler safety, sample retrofit ordinances, identifying barriers and advice on how to build a consensus around retrofitting. In addition, NFSA experts will travel to testify before legislative bodies and provide help and advice.

"There are certain things (fire chiefs) may not be able to say or do that we can do for them," Sawyer said.

The NFSA wants to pass retrofit legislation in the county's 225 largest metro areas, a goal that Sawyer admits will be difficult to accomplish.

"If we could pass it in only half the cities, think of how many lives we could save," he said.

BlazeMaster® Fire Sprinkler Systems supports NFSA and its retrofit initiative and urges everyone who wants to get involved to contact Derrick Sawyer at sawyer@nfsa.org

Mark Knurek is the Americas and National Sales Manager – North America, Lubrizol Corp.



As a Fire Protection Contractor, Can We Do More to Support Our Heroes, the Firefighters?

By Fred Lupo

The answer is yes! Before I explain the one time, 15-minute task we all can do to help our fire fighters, I want to take you through a personal journey. This journey started on a Friday afternoon in 2005 when I received a phone call from my 37 year-old wife, Sandy.

Sandy was in tears explaining to me the results of a routine blood test for monitoring cholesterol. She started talking about platelet counts, hemoglobin, white blood counts and so much more. I will be honest, I listened and tried to calm her down. However, this all was just totally Greek to me. I am sorry to say the only numbers I understood at that time of my life was water pressures, k factors, C factors, hydraulic calculations, and anything related to the fire protection business.



Our primary care doctor told Sandy to immediately go to a specialist's office. Our primary doctor then called the specialist late Friday afternoon and asked that they remained open and wait for Sandy to start treatment immediately before the weekend. After arriving at the specialist's office, she noticed the sign on the door was for a cancer center. This really scared her, she wondered why she was being sent to a cancer center. Upon entering the office, the doctor asked, "Are you Sandy Lupo?" When she replied yes, he said there had to be a mistake with the blood test results," I expected a 60 year-old women to be walking through the door with the results I was given." Remember, Sandy was 37 and looked like she was 27.

After running his own test, he came back and told Sandy, "I was wrong, you are the real deal." He sent Sandy home with a prescription and assured her this would drop her platelet count. He then gave her follow up appointment for the following Monday to check how much the medicine had dropped her platelet count. At this point, we still didn't realize the severity of her illness. Saturday went by without any problems. Then my wife gets a phone call on Sunday night. I hear Sandy starting to give this person a bunch of medical history. The conversation lasted for about 15 minutes. I asked her who she was speaking to. She said it was our family doctor. This really started to get my attention. I asked Sandy why is our doctor calling you on a Sunday at 7:00 p.m.? Sandy explained that the doctor has never seen test results with the numbers as high as hers. The doctor then told her she was lucky to be alive. If this

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was left untreated, she would have had a stroke or a heart attack. I thought to myself, "Okay, this is something very serious."

The doctor told at her any signs of a headache or chest pains, she needed to seek medical attention immediately. Receiving that call on a Sunday night really was an eye-opener as to the situation my wife was facing. Then about 2:00 a.m., I woke up to find a very tired wife holding her head saying she had a terrible migraine. Sandy suffered from migraines often. At that moment all I thought about was the call from our doctor talking about getting immediate medical attention if she had a headache. We went to the local hospital emergency room about 2:45 a.m. The doctor came in to examine Sandy. At first, he told her that she must have misunderstood the test results. He said he had never seen numbers as high as we where stating. I could tell at this point he had know idea what medical issue was sitting in front of him. However, he did order some new blood work. About 30 minutes later, the nurse came back into the room with the blood test results. She confirmed that Sandy didn't misunderstand her test results. She then proceeded to explain to her the hospital didn't know how to treat her and that they could not do anything more for my wife.

I really didn't like the fact that we were getting this type of response after receiving the phone call from our primary doctor hours earlier. I found my wife's phone and called the last number received, hoping our primary doctor would answer this early in the morning. Thankfully she did! I explained the situation we were in. She asked me to find the emergency room doctor because she wanted to talk to him. I handed the phone to the doctor. I could hear the two doctors arguing about her condition then I heard the emergency room doctor say, "Okay". The phone was handed back to me by a very irritated doctor. Our primary doctor was still on the phone, she proceeded to tell me she demanded that Sandy be admitted.

After admission, Sandy was seen by a hematologist/oncologist. The medication prescribed for her on the first day never lowered her platelets at all. In the hospital, they were required to physically remove platelets from her blood through apheresis (similar to dialysis). Since the medication was ineffective, her doctor was forced to prescribe her a different medication that came with potentially serious side effects. It took 13 days in the hospital to lower her platelets to a safe level. Her new doctor explained that Sandy had a very rare disease called Essential Thrombocytopenia.

For four years Sandy continued taking her medication and watching things carefully. Eventually, one of the side effects of the medication became an issue. There are different opinions about whether the medication caused the new problem, or it was going to happen anyway. She was diagnosed with Myelofibrosis. Myelofibrosis is a disease in which scar tissue takes over healthy bone marrow. Bone marrow is responsible for the development of all blood cells. At first, doctors did not know if the scar tissue would develop rapidly and she would lose the ability to make enough healthy blood to survive, or if it would develop more slowly. Sandy's siblings were tested for matching, as they were the natural, first

choice for a close DNA match required for a transplant. They did not match. We knew that when her time ran out, we were held hostage by whatever was available on the bethematch.com Bone Marrow Registry. In 2009, she wasn't ready for a transplant because she was still able to make enough quality blood, but we knew the day would come.

In the summer of 2017, we got the news we'd been hoping we'd never get, but knew we would. Sandy could no longer sustain herself and would be dependent upon blood transfusions until we can get her a donor and get her to transplant. This brings us to June of 2018, when the doctors gave us the news that we could not wait any longer and it was time for the transplant. We started our search in 2009 but until the end of May 2018, we still didn't have a solid match. Finally, in the beginning of June, a perfect match was paired with Sandy's DNA. Someone had just joined the registry. My point is this, it took a long, difficult process of health scares, procedures, bone marrow biopsies and donor searches to find a match for Sandy. Fortunately, Sandy's disease moved very slowly. It took all of nine years to get a perfect match. However, the duration between diagnosis and transplant is normally a lot shorter for others. Every day for the last nine years I wondered how I was going to tell my kids that their mom lost a battle with a disease because not enough people joined a registry to help save a life.

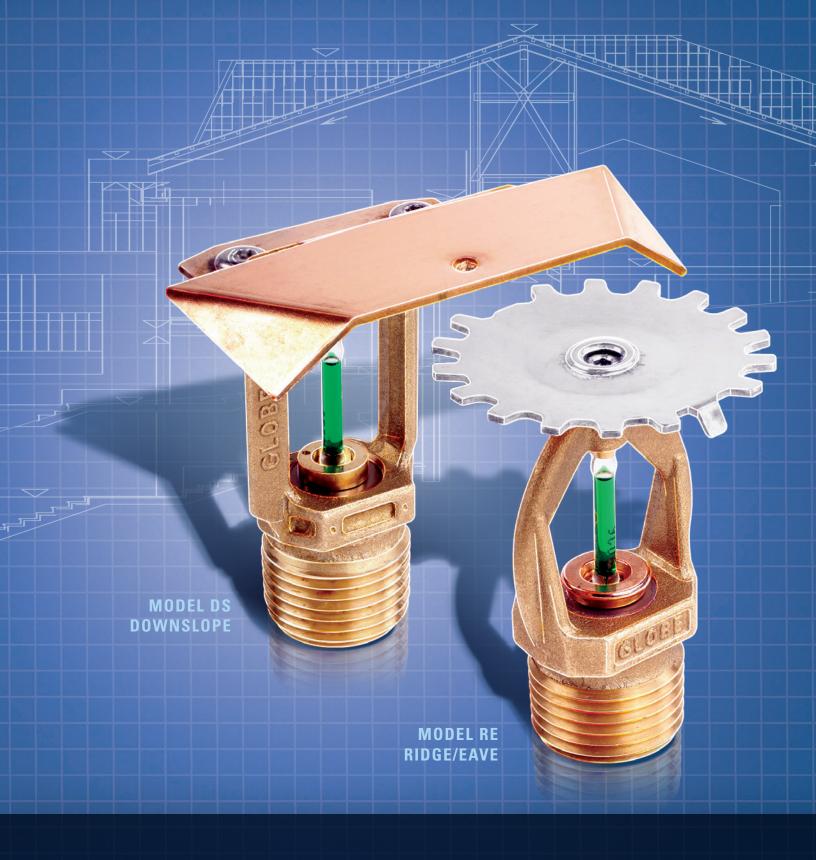
As part of the fire sprinkler industry, we are all proud to be part of an industry that saves lives. There is another way we can all saves more lives. Wouldn't it be great if every person in our industry was a bone marrow donor? Firemen have a 150% higher incidence of cancer than the general public. Bone marrow transplants can cure some of the types of cancers they get from fighting toxic fires.

When stem cells are collected from bone marrow and transplanted into a patient, the procedure is known as a bone marrow transplant. If the transplanted stem cells came from the blood-stream, the procedure is called a peripheral blood stem cell transplant—sometimes shortened to "stem cell transplant". Whether you hear someone talking about a "stem cell transplant" or a "bone marrow transplant," they are still referring to stem cell transplantation. The only difference is where in the body the transplanted stem cells came from. The transplants themselves are the same.

A bone marrow or stem cell transplant may be the best treatment options, and the only potential cures for patients with leukemia, lymphoma, sickle cell anemia, and many other diseases. As the science of transplant continues to advance, new diseases are being treated with transplant.

Why is there a need for people to join Be the Match Registry®?

Thousands of patients with blood cancers like leukemia and lymphoma, sickle cell and other life-threatening diseases depend on the registry to find a match to save their life. Annually, more than 130,000 people will be diagnosed with a serious blood disease in this country. Leukemia (a blood cancer) will strike 44,000 Americans this year, including 3,500 children. It will kill about half of the adults and about 700 of the children. Leukemia is the



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Syste	em Type	TRADITIONAL Per NFPA 13 (standard spray sprinklers)	BACK TO BACK Specific Application Attic Sprinklers	GLOBE'S NEW Specific Application DS/RE
Dry :	System	300 gpm – 500+ gpm	340 gpm – 400 gpm	120 – 140+ gpm
Wet	System	150 gpm – 250 gpm	250 gpm – 300 gpm	100 – 120+ gpm

Anticipated system demands consider non-maximum sprinkler spacing due to construction and estimated over-discharge of piping system.

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most common childhood cancer.

Only 30 percent of patients who need a bone marrow transplant have a matching donor in their families. The remaining 70 percent must hope that a compatible stranger can be found using the national registry. At any given time, about 7,500 Americans are actively searching the national registry for an unrelated donor. Only 2 percent of population is on the national registry.

Each year, nearly 17,500 people, ages 0-74, in the United States are diagnosed with life-threatening illnesses where a bone marrow transplant or umbilical cord blood transplant (also called a BMT) from a related or unrelated matched donor is their best treatment option. A bone marrow or cord blood transplant replaces a patient's diseased blood-forming cells with healthy cells.

A well-matched donor is important to the success of a transplant. Doctors look for a marrow donor or cord blood unit with a human leukocyte antigen (HLA) tissue type that closely matches the patient's. HLA are proteins, or markers, that the immune system uses to recognize the cells that belong in the body and those that do not.

Because tissue type is inherited, you might expect that a family member would be the best match. However, only 30% of patients will have a relative who matches and is able to donate. The other 70%, or approximately 12,000 people, need someone like you to donate their healthy marrow. Even with nearly 29 million potential marrow donors and 712,000 cord blood units available worldwide, it is harder for patients of racially and ethnically diverse backgrounds to find a match. Because tissue type is most likely to match someone of the same race and ethnicity, donors of these racial and ethnic heritages are especially needed:

- American Indian or Alaska Native
- Asian
- Black or African-American
- Hispanic or Latino
- Native Hawaiian or other Pacific Islander
- Multiple race

A close match between a patient's and donor's tissue type can improve the chances of a successful transplant. When a patient searches for a donor, sometimes he or she finds a closely matched donor, sometimes not. A patient could be waiting for someone like you. Joining the registry only takes about 15 minutes. Joining the registry requires filling out a few forms and swabbing the inside of your cheek. After you mail in your kit, keep your information up-to-date and some day, someone may contact you with news that your stem cells match someone who needs your help. Donation is NOT difficult! You can save a person's life with a procedure similar to donating blood. Donation very rarely requires removal of bone marrow anymore, and what happens after that can be priceless.

I joined the registry in 2009 and have yet to be matched with anyone. By the time you are reading this, Sandy will be well on her way with the transplant. Please help and join the registry. I want to make sure everyone gets a second chance at life.

To join the Registry: http://bit.ly/registrymatch. Fred Lupo is President of Freedom Fire Protection Of Central Florida,



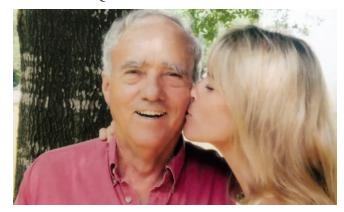
Transitions...

By Jeannene Meisman, CFPS

Ah, the mixed emotions of change. Fear of the unknown, fear of failure, the pure joy of success, the pride of accomplishment. Who knew that coming back home to Florida to care for my ailing parents would one day lead me back to even greater adventures abroad?

I thought that my best days were behind me. After all, the day after high school graduation I had embarked on an endless array of travel that took me to 44 states in the U.S. I had a romance that took me to live in England for a year. I modeled in Atlanta for a couple of years and dashed off to live in the Virgin Islands making a living as a SCUBA instructor and tour guide, vowing to never live in the cold again! I lived on cruise ships for a while, teaching diving and leading SCUBA and snorkel tours, and eventually ended up ringing in Disney's 20th year anniversary as a "Scientific Research Diver" at the Living Seas Aquarium.

I thought that I had reached the pinnacle of my sales career when I became a National Sales Manager and traveled non-stop from one trade show to the next, one training presentation after another, and endless 24-hour appearances on live TV as the guest host who broke QVC sales records!



But having to stay put - well, it grounded me. My parents were my best friends right from the start. So, when I got the call, I stepped up to the plate. I started my own company so that I could be at home with mom. Five years later mom passed and Dad was diagnosed with cancer and given 90 days to live. I was lost. My two best friends in the world were dead and dying. Oddly enough, this is when my fire protection career began. I took a job picking



up and delivering firefighters' bunker gear. I learned about NFPA codes doing this and became a fire inspector. During this time my father survived the "90 day" death sentence and we were told that now it was only a matter of days or weeks and that we should get his affairs in order.

Well, Dad and I weren't giving up. I took him home from the hospital and began studying nutrition and its effects on cancer. My dad and I took this journey together, I studied every night with him resting by my side. Reading every book, listening to others on Audible, attending seminars, calling and emailing everyone with my endless questions. He improved rapidly and we thought that we had this thing licked - "Cancer, Schmanser!"

I got my first job with a family-owned fire protection contractor and I knew right away - this was it! Code books, a tool belt and a truck. Going to different places every day, meeting new people, and protecting them and their property! I worked hard every day - I read everything that I could get my hands on, took every class that I could. When my number finally came up at the fire academy (I had been on a waiting list for a year.), I attended the academy on the weekends and nine months later graduated as a firefighter. I continued to rent the house next door to my dad and care for him. Having nursed him back to health from all his cancer treatments and surgeries that the doctors had said not only failed to cure him, but left him with a much lesser quality of life. He really depended on me primarily for his meals and daily juices and supplements. I studied into the night to research all the latest cancer fighting theories that we would incorporate into his healthcare plan.

Now as a firefighter/EMT and fire inspector I would have to volunteer hours every month to keep my certifications active. I enjoyed riding the engine - but my real love was fire protection - sprinklers! I kept studying and getting more certifications as the years passed and eventually ended up back at Walt Disney World, this time as the license holder and qualifier. I had found a fire department that needed a fire protection contractor. I enjoyed experiencing a diverse set of responsibilities from plans review of new construction, remodeling and repairs, to oversight of fire and sprinkler inspectors - the world was my oyster!



But the good times did not last. After ten years of excellent health, my father took a rapid turn for the worse and died. I was devastated for a time. But my fire protection "family" came through for me and I was once again on the road - this time my adventures took me to the land I had only read and dreamed about as a little girl. A land of Genies, Aladdin, and flying carpets - the Middle East!

As a project manager working with the Qatari government during the first years after the adoption of NFPA codes, the weeks and months were always full of surprises and tension. I had found my niche, I truly loved the adventure. I loved working with people from all over the world. With that adventure over, I found myself back in the USA freelancing for a time and then transitioning again. This time joining the world's largest fire protection manufacturer, Tyco (now Johnson Controls).

Fire protection has embraced me, and I have thrived in her embrace. I was wrong all those years ago, you know, about the part of "my best years being behind me." And about those mixed emotions that come with transition and change. I have lost my fear- fear of the unknown, fear of failure. This beautiful fire protection community has stepped in for my mom and dad. Fire protection has provided me with the pure joy of success and the pride of accomplishment.

Jeannene Meisman –Territory Manager for Johnson Controls/ Tyco Fire Protection Products •



Use Honey, Not Vinegar, to Collect Money

By Eric Morris

Editor's Note: Article originally published in Building Connections Winter 2016 edition

Collecting money is an art, not a science; therefore, people who collect money should be artists, not scientists. Too often, the wrong people use the wrong techniques to collect past-due accounts.

In 2008, Wayne Automatic Fire Sprinklers had revenues exceeding \$85 million, with more than \$14 million tied up in average accounts receivable. At our current run rate, our company's 2016 revenues will exceed \$92 million,



but we will only have \$12.5 million tied up in average accounts receivable. What caused our collection effort to become so much more effective?

The answer is simple to explain, but harder to accomplish. Between 2008 and 2016, we learn three important concepts about



collections:

- 1. Affable people collect more money than analytical people
- 2. Build bridges rather than twist arms
- 3. Use information as your ally

Learning from Collection Mistakes

In the journey to improve our collections, we made several mistakes. The biggest mistake was demanding that people who hate to collect money do collections. Prior to 2009, we asked our remote branch administrative assistants to make collection calls along with completing other duties: scheduling work, billing customers, entering payroll, and all other administration duties.

Collection calls were always the last chore on their list, and our past-due accounts receivable balances demonstrated their lack of enthusiasm for the task. It was a lose/lose situation. The admins hated to make collection calls (and hated getting chewed out for not getting results even worse).

Because of our ever-expanding uncollectable balances, we came up with the brilliant idea of centralizing collection efforts at our corporate office. Here's where we made our second big mistake: We staffed the newly created collection department with numbercrunching, accountant-type individuals. These individuals were extremely precise about how much the customers owed us and how past due their balances were. They also weren't shy about telling our customers these precise amounts and demanding that they rectify the situation immediately.

While the oversight process had improved somewhat with centralized collections, the actual collection results weren't showing a great deal of improvement. Frustrated that our new centralized collection team wasn't getting much traction, we decided to rethink the issue. We examined what was working and what wasn't working.

We noticed a few important patterns:

- 1. All our collectors had essentially the same tools, but garnered different results
- 2. Some of our collectors were significantly more successful
- 3. Some collectors approached the process differently



We had good collection tools. We could track the DSO (days sales outstanding) by job, customer, and department. Collection notes were attached to invoices and visible within the system. We also knew how many collection calls were being made on each invoice. This data gave us hints about our first process revision.

There was an obvious correlation between the number of collection calls made on an account and the time it took to collect an invoice. A quick – but not correct – approach was to "require" all collectors to make more calls each day. Not surprisingly, some folks would rather crunch numbers and generate emails before they pick up the phone and ask for money. Management got frustrated and made these analytical individuals miserable by requiring them to double or triple their daily phone calls.

The Key to Collection Success

Our most successful collectors approached phone calls differently. These collectors like to talk on the phone and are extremely personable. Instead of acting like they were trying to bludgeon our customers for money, they act as facilitators to get whatever the customer needs to make it easy for them to pay us. This is when we learned a major truth about overdue invoices: Past-due invoices are almost always "invoicing errors" dressed up as delinquent accounts. The sooner we could identify and rectify invoicing errors, the sooner we got our money.

Our best collector's first priority is to determine whether our customer has the paperwork he/she needs to pay us. Need a schedule of value? Got it. Want inspection papers or test reports? On the way. Need to speak to our superintendent? Let me conference you in. Do you have an issue about that change order? Let me get your salesman on the line. Our system also allows us to immediately generate emails containing duplicate invoices while we are the phone with customers.

Not everyone is cut out to talk on the phone. Not everyone enjoys solving customers' endless demands for additional paperwork. Where do you find people of this ilk? We looked at the backgrounds and temperaments of our most successful collectors to identify what makes them outstanding.

Our best collectors had little or no previous background in collections. What they do have, however, is past experience in customer service, whether they were part of a customer-service department or had customer-service responsibilities in prior roles.

Change Takes Time

Was the transition to a more user-friendly collection team easy? No. We went through three collection supervisors before we found our first customer-friendly supervisor. Several of the collection staff members decided that other jobs were more appealing to them. From 2008 through early 2016, there were numerous turnovers on the collections team.

Each turn of the crank, however, yielded results. Since 2009, each year's average DSO has declined from the prior year. We have reduced our average DSO from a high of 70 days in 2009 down to approximately 49 days in the current year. Our DSO has become



progressively better as our revenues have grown from \$40 million in 2010 to a projected \$92 million this year.

What did we learn? Systems and process are part of the answer. We modeled what worked and taught it to our team. We have more data, automatic alerts, and great diagnostics. That is part of the story. The biggest success ingredient, however, is people.

Currently, we have a collection staff made up of one supervisor and three collectors. Everyone on the team has accountability for a specific department's DSO goals. No member of this exceptional team had any prior collection experience before joining the team, but they all had some form of customer service in prior jobs. All team members had to learn the lien laws. They have no fear of staying on the phone for hours on end. All team members have enough analytical ability to learn our tracking and documenting system.

Most importantly, all members of our team firmly believe that their job is to facilitate our customers' ability to pay us. They approach their job as a puzzle to be solved. What barrier can they remove so that the customer is willing and able to pay us? That's their mission each day, and they live it..

Eric Morris is CFO at Wayne Automatic Fire Sprinklers in Orlando.



Is a Good Contractor a Good Risk?

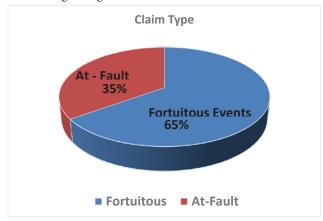
By Top Myers

Risk Suppression Partners, LLC wanted to understand more about what was causing claims. We had enough good information. It was time for an in-depth review and analysis of claims from over 30 years of insuring fire protection contractors. There were over 2,500 general liability claims, which was a large enough number to see significant claims trends, and perhaps a way to identify some good risk management practices fire protection contractors could adopt to reduce overall loss ratios.



We did the analysis of our 2,500 plus claims and found some very surprising data. To set the stage, let's take a minute to understand that most of our industry claims come from subrogation claims from property insurance companies trying to recover money that they paid to a property owner to fix damages from water losses, fire damages in sprinklered properties, or, in some states, construction defect claims, which I call "legal extortion" in most cases.

This article is limited to the increasing claim from inspection and service work. The following picture makes the point that our data shows that in inspection and service claims you are not at fault in two out of every three claims, yet many tens of thousands of dollars are spent defending you when, as a good contractor, you did nothing wrong.



This data gets worse. The growth of our industry has increased service and inspection vs installation. Over the last few years, our industry has seen an increase of these inspection and service claims to the point that they now are 50% of all new fire protection claims. The average claim over \$100,000 has stayed stable for installation at around \$291,000, but increased to \$449,000 on inspection and service.

Remember your premium is based on sales or labor hours. This means your insurance company receives more money to fund installation work than it does to fund inspections and service, yet they both can have large losses. For example, we have had \$2,000,000 losses on a \$450.00 inspection contract. Yes, you often have more inspections than installations, but the total premium base is not close.

So, what can you do to lower your exposure? Our analysis shows that being a good risk is different from being just a good contractor – you want and need to be both. You need to separate the legal process from the work you do as a contractor, servicing customers or performing inspections. Your work may be perfect, but you can still be sued when there is damage. What can you do?

To avoid or reduce cost of law suits in the inspection and service area, you need to do the following:

- 1. Have contracts with appropriate language, including following Terms and Conditions:
 - Waiver of Subrogation
 - b. Liquidated damages
 - Scope of your work what you are inspecting and not whole NFPA-25 book as an example.
 - d. Have contract signed before inspection
- 2. Inspection reports
 - a. Reports that spell out only what code asks.
 - b. If you find design issues or find issues outside code, make them a separate observation in its own section with proper disclaimer



- 3. Service Work Order
 - a. Waiver of Subrogation
 - b. Liquidated damages
 - c. Scope of work signed before service starts
 - d. Signed again after completion of work

We have seen millions of dollars in claims go away with very little expense when a program like one outlined in this article is in place.

Can we help you become a Good Risk? If you have any questions or need additional information, please contact: wilton@risksuppression. com or top@risksuppression.com.



Converting a Wet System to a Dry System - What to Consider (and not forget)

by Nicholas Nava, P.E.

Often you hear about customers transitioning their dry sprinkler systems to wet sprinkler systems and in fact, NFPA 13, recommends that dry systems be converted to wet systems when adequate heat is provided. Now imagine the opposite case, a prospective customer asks you if your company can transition their wet system to a dry system in an old warehouse or factory. This may be the same cus-



tomer that your service group visits in the winter for freeze-ups. Perhaps the facility is lacking insulation, the facility no longer operates its heating system, or maintaining heat in their facility is viewed as impractical or costly. As a company who values the relationship with your customer, you will likely want to provide them with a price quote for the system conversion. But before you do, it is important to keep in mind there is more to the system conversion than changing the wet alarm check valve and adding an air compressor. A review of NFPA 13: Standard for the Installation of Sprinkler Systems (2016 Edition) reveals many other items to consider.

I have seen situations of a wet pipe sprinkler system installed in a building, but after changes of ownership and use and occupancy over the years (often without direct approval from the Authority Having Jurisdiction (AHJ)), the building may no longer be occupied, the heat may no longer work or is maintained only in a small portion of the building, or the insulation has fallen into disrepair or is nonexistent. In areas of the country subjected to cold winter months, these facilities risk costly and damaging freeze-ups.

Freeze-ups result when the water in the sprinkler system piping freezes and expands exerting pressures that can fracture piping and/ or components. When the ice thaws as temperatures warm, the water releases through these fractures leading to property damage, business interruptions, and debris to clean up. A possible solution for a building owner who does not want to make operational or building changes is a wet system to dry system conversion.

This solution does come with important considerations, including most notably, verifying with the local building official and/or AHJ that this system alteration is permitted in the specific facility's municipality. If allowed, the conversion involves system examination and component replacement and installation. Concurrently, the contractor should, if not already familiar with the system, request the original system drawings and/or conduct a site visit to review and survey all sections of the current wet system. If the system is in the gridded configuration, the system is not permitted to be dry and a conversion from wet system to dry system is not permitted. The contractor should review if the system is a pipe schedule system or a hydraulically calculated system. If sized via the pipe schedule method, no additional calculations are required; however, a system sized using hydraulic calculations is required to be recalculated with a 30% increase to the design area and a change in the pipe C factor for black and galvanized steel. This will increase the hydraulic demand if the layout is not being changed and may require a fire pump or an additional water supply which may be a showstopper for customers due to increased costs. In addition, the hydraulic design information sign will be required to be updated after the system is recalculated.

Along with the paperwork and calculation aspect of the conversion, the system's physical components will also need to be addressed. I have examined wet system to dry system conversions in the field and have noted multiple items which are often overlooked. The following is a list (although not exhaustive) of hardware that may need to be addressed, reviewed, analyzed, assessed, and/or replaced when converting from a wet pipe system to a dry pipe system.

- Replacement of the wet pipe valve with a dry pipe valve and associated trim. The wet pipe valve and alarm trim is not adequate for a dry pipe system. It needs to be replaced with a dry pipe valve that allows an air supply to hold back higher water supply pressure. In addition to the replacement of the valve, the associated trim shall be replaced. This often includes the inclusion of listed pressure switches that alert to low air pressure and water flow. The addition of these devices will require coordination with NFPA 72: National Fire Alarm Code, the fire alarm system, the owner, and fire alarm monitoring company to ensure the system will alarm or alert as intended.
- Install an air compressor or nitrogen generator to supply and maintain pressure on the "dry" side of the system. The installation of a compressor or generator maintains air pressure and prevents the system from filling with water until



- a sprinkler head activates. Installation involves connection to power, correct sizing, connection to the dry valve, and inclusion of a pressure relief valve.
- Examination of fittings to verify compatibility with a dry pipe system. Sprinkler pipe fittings are listed for use in a sprinkler system. The existing components, especially grooved couplings, shall be listed specifically for use in a dry pipe
- Removal of paddle type waterflow switches. Paddle type waterflow switches are often found in the riser of a wet pipe system. NFPA 13 notes in dry pipe systems the surge of water that occurs when the valve trips can damage the paddle. The switch should be removed and the hole created by removal shall be plugged. Water flow is monitored in dry pipe systems by pressure switches that are part of the dry valve trim.
- The location of the FDC in the piping network shall be reviewed and relocated if needed. The piping configuration connected to the FDC on a dry system is configured differently than a wet system. For a wet system the FDC is downstream of the wet alarm valve and control valve. However, for a dry system the FDC and piping shall be located between the control valve and dry pipe valve. If the former installation is observed, the FDC piping will need to be reconfigured to comply with NFPA 13 for a dry system.
- Examination of sprinkler heads to verify compatibility with dry pipe systems.
 - Sprinklers connected to a dry pipe system shall not be orientated to allow for the collection of water. The use of pendant heads allows a small amount of water to remain on the seat of the operational mechanism even after draining the system. In environments exposed to freezing temperatures, this small amount of water can freeze and cause issues with the sprinkler's operation. If pendent sprinklers are installed on the original system they should be replaced with upright sprinklers or listed dry barrel sprinklers.
 - Sprinklers shall also be listed for use in dry pipe systems. For example, some ESFR sprinklers are only to be used in wet pipe systems. An examination of the sprinkler manufacturer, model, and sprinkler identification number (SIN) will allow the installer to determine if the sprinklers are permitted to be used in the converted system.
 - If the occupancy classification is for storage, the sprinkler temperature rating shall be high-temperature per NFPA 13. An examination of the sprinkler manufacturer, model, and SIN will allow the installer to determine if the sprinklers are permitted to be used in the converted system.
- Pipe pitch shall be examined, measured, and adjusted accordingly to ensure adequate drainage. The pipe pitch aids in the draining of the dry system after it had tripped and

- water fills the normally "dry" piping. For dry systems, the pipe pitch is required to be at least ½ inch per 10 feet for branch lines and at least 1/4 inch per 10 feet for main lines. When converting the system from a wet system to a dry system, the pitch needs to be examined and adjusted if it does not meet the pitch requirements. This job is made a little easier if the previous installer of the wet system used adjustable hangers so that they can be adjusted to change pitch rather than being replaced. Notably, wet systems were required by older editions of NFPA 13 (prior to the 1970's) to have a 1/4 inch per 10 feet pitch. Therefore, it is possible that a pre-1970's system installed per NFPA 13 may only require pipe pitch changes to the branch lines, and with adjustable hangers, may be a relatively easy adjustment. The pipe pitch aspect of the system could be costly in terms of labor hours and should not be overlooked when pricing a wet system to a dry system conversion.
- Low point or trapped sections of piping shall be outfitted with an auxiliary or "low point" drain. The system will need to be examined to determine if there are any trapped legs or locations that will not drain. If so, auxiliary drains should be installed to facilitate removal of water from a tripped dry system. NFPA 13 requires a ½ inch valve or larger when the trapped section capacity is less than 5 gallons and a condensate nipple type low point drain (1 inch valve with a 2 inch x 12 inch condensate nipple followed by a 1 inch valve) where the trapped section capacity is more than 5 gallons. The installation of these drains is important for a company doing the NFPA 25 inspection, testing, and maintenance of the system and allows for the removal of water that may freeze from the system.
- An information sign will need to be added or have information added to it. NFPA 13 requires the installation of a "general information sign" on all systems retroactively starting in 2007. These signs were not required by NFPA 13 prior to the 2007 edition, so many systems might not have them. The installation of these signs benefits the building owner and the company doing the sprinkler inspection, testing, and maintenance. If a sign is not installed prior to the conversion, one will need to be installed. If one is installed prior to the conversion, it will need to be adjusted to reflect the new information. Importantly, the location of the auxiliary and low point drains should be noted. I have seen this written out as text or located on a map supplementing the information sign. Other information on this sign should include the original results of the dry pipe valve test and name of the conversion contractor.
- Ensure the valve room is heated. The customer has indicated their interest in making the system dry due to a lack of heat, but the valve room must still be heated. This requirement is to prevent freezing within upstream valves and trim that may be "wet" at all times. If the valve room is not already heated, an



appropriately sized baseboard heater or radiant heater can be installed. If there is no valve room or enclosure and the valve is likely to be exposed to temperatures below 40°F, a heated enclosure may need to be constructed around the valves.

- Does the system have a trip connection? A trip connection is required to be located on the end of the most distant sprinkler pipe in the upper story and shall be equipped with a shutoff valve and shall terminate at a smooth bore outlet providing flow equivalent to one sprinkler. The trip connection is used to test water delivery time in dry pipe systems. In some wet system installations, the inspector's test connection is located at the most remote location in the sprinkler system from the riser and no changes are likely required to convert it to a trip connection for the wet system to dry system conversion. In other cases, the contractor performing the conversion will need to install a trip connection which will require installation of a few pipe sections and a valve per NFPA 13.
- Test water delivery time. System water delivery is important for dry sprinkler systems, as the increased time for water flow allows a fire to grow. The shorter the delivery time, the better from a fire suppression standpoint. The maximum water delivery time from the system test connection is not more than 60 seconds for systems over 750 gallons (15 seconds for dwelling units). Systems with capacities less than 750 gallons may not require a delivery time and NFPA 13 should be consulted for specific requirements. If testing shows that this cannot be achieved, a quick opening device and associated piping and components will need to be installed to decrease the total trip time.
- Final acceptance test. After conversion and successful completion of all tasks associated with it, a final acceptance test may be required by the local AHJ. For a dry pipe system the following tests are required per NFPA 13: hydrostatic test, air pressure leakage test, dry pipe trip test and main drain test. In addition, the system control valves should be exercised.

In conclusion, a wet system to dry system conversion may not be appropriate for all systems and all facilities. When a request is made by an owner, the aforementioned items should be reviewed and addressed as applicable prior to preparing a price quote for the system conversion. In some cases, a conversion may be possible, but will be cost prohibitive. This article is not designed to discourage conversions, but instead to remind installers and contractors that changing out the dry valve and adding a compressor will not suffice as meeting the requirements of a dry system compliant with NFPA 13. A conversion could save money for an owner with a history of, or at risk of, impending freeze-ups by avoiding a costly business interruption. It could also save the owner money versus the cost of a new system installation, and could result in business generation for a savvy contractor or installer who can offer the owner a code compliant conversion of the system.

Nicholas Nava, P.E., CFEI | Senior Engineer | Exponent



Be Prepared for Your NICET Exam

Submited by Fire Tech Productions, Inc.

When preparing for your NICET exam, there are some things to keep in mind...

NICET exams are open book. Specific references are recommended and allowed into the testing center.

Standards, Standards—Be very familiar with the referenced standards! It is highly recommended you take the exact edition referenced in your exam.

Familiarize yourself with the Standards - each chapter, important tables, etc. Know where to find information in the Standards. We recommend tabs—they must be permanent tabs, per NICET guidelines. As one of Fire Tech's clients said, "Referencing NFPA Standards is a real pain without your tabs!"

When your exam allows more than one reference into the test, the importance of knowing the different Standards and being familiar with where answers can be obtained is very important. You typically have an average of 90 seconds to answer any given question. Therefore, you need to know where to look, so you can spend your time reading the correct section to answer the question correctly.

Practice, Practice—Go through lists of sample questions and look every question up in each of the Standards. You will achieve the highest chances of success by learning and understanding the training material.

Specific Standards are available online during some NICET exams. Be familiar with PDF navigation. Practice on your own computer prior to taking the exam.

Practice using the online calculator tool at NICET.org.

Take time to review the NICET site. Know the content outline and selected general references list for the exam you are taking.

When you sign up on the NICET site, you are given a threemonth testing window. Schedule your exam, mark it on the calendar, and start studying.

Once you complete your study and exam, you should be more qualified—that is the final goal for everyone. The NICET certification was put in place to represent a highly knowledgeable technician.

Ask for Help – Supervisors, verifiers, trainers – if you are not confident with areas of required knowledge, find an expert! There are many industry resources and we all want you to succeed!





Sprinklerman is Alive and Well in Washington!

By Connor O'Brien

From the Fire Sprinkler Advisory Board of Puget Sound and Patriot Fire Protection in Washington State

It is often said that everyone is somehow related in the fire sprinkler industry. That's no different with the Fire Sprinkler Advisory Board of Puget Sound's costumed character **Sprinklerman**. Donning the Sprinklerman costume for public events has become a rite of passage for the O'Brien family at Patriot Fire Protection. Connor, Megan and now Ben have proudly worn the suit, which features an escutcheon body and crown of water droplets emerging from the diffuser...and of course a red cape.

Sprinklerman has gained a local following among sporting and community event planners. "He" thrilled visitors to the opening of Washington's floating bridge on interstate 520, an engineering marvel that featured state-of-the-art fire protection. "He" greeted NFSA Board members at the top of the Columbia Tower at their Seattle meeting. He helped sing "Happy Birthday" to the Mariner Moose (Seattle Mariners mascot), and to Rhubarb, mascot of the Seattle Mariners AAA affiliate Tacoma Rainiers on their respective birthdays! Sprinklerman recently outshined a litany of other characters at the Seattle Storm WNBA game.

Sprinklerman definitely helps promote the widespread acceptance of fire sprinklers!

Connor O'Brien is a designer at Patriot Fire Protection, Inc.



Sprinklerman gives a young Seattle Storm fam a "high five." Always a crowd-pleaser, Sprinklerman has been invited to numerous pro sporting and fire sprinkler events in the Seattle-Tacoma area.



Sprinklerman shows off his favorite dance move at the July 10 Seattle Storm WNBA game. The Storm were promoting interest in STEM fields at this regular season game. Playing Sprinklerman has been a rite of passage for family members at Patriot Fire Protection in Tacoma, WA



Sprinklerman is mobbed by admiring fans after completing a dance on top of the dugout at the Tacoma Rainiers AAA Baseball game in the historic Cheney Stadium.





When is a Fire Suppression **System Utilized for More Than Just Functionality**

By Mark Peters

...when it is an integral part of a one-of-a-kind attraction, with its twists and turns designed to bring fantastic scenes to life. A ride that moves between scenes is an architectural nightmare for designers attempting to conceal all the structure and utilities, while keeping the guests immersed in another world's fantasy.

It has been our pleasure to work hand-in-hand with creative designers and engineers to achieve the desired appearance and provide the protection for property and guests. Some of these areas required that prescriptive design approach be abandoned for a performance-based design application. This involves working with architects, engineers, and our design staff, to come up with an innovative solution and best practices to achieve an acceptable level of protection approved by the underwriter and code authority.

Unusual piping that conforms to the contour of a structure, that is pre-fabricated and shipped to a job site creates some complexities, with handling and installation. This installed piping cannot detract from the intended theming as our end goal.



Concealed custom colored sprinklers in a paint by number pattern from creative interior designers for a hand-painted ceiling mural.



Cloud ceilings that have multiple levels of protection. Sprinklers installed in formed rock work, that mimics a cave, requires multiple trips to install the critical head placement. Finally, as the finished plaster is applied to get the ceiling finish, a final adjustment to check the location so that the sprinkler remains unobstructed for the spray pattern to develop and also that the accumulation of heat will fuse the head in a fire condition.



Then, there is what our group refers to as the car wash, on a water ride, with an opening where a fire wall was not practical or achievable. The tradeoff was the installation of a deluge system to protect the opening.







The installation of heads in a tent fabric, with patterned designs, is about placing the sprinkler within a 3 dimensional location, working with the installing contractor is a slow but rewarding process.



On multiple projects Grunau has become a sole source solution, working with the design teams up front to develop budgets and input on constructability teaming with the Engineers.

And in the end once the projects are completed and open to the public, it's our time to enjoy the ride! •

NOTE

- The Big Top and Be our Guest Restaurant are at Magic Kingdom (Fantasyland)
- The bent piping was at Universal Islands of Adventure (Seuss Landing)
- The car wash is at UIOA Dudley Do Right Rip Saw Falls (Toon Lagoon)
- The tree clouds are at the Animal Kingdom Lodge

Mark Peters is the Vice President of the Grunau Company, Inc.



Tall Wood, Oregon!

By Chuck Rabitoy

Patriot Fire Protection of Vancouver, Washington recently completed the design and installation of the fire sprinkler system for what is currently the tallest permitted mass timber building in the United States, located in Portland, Oregon. Carbon 12, is an 85-feet tall, eight-story, mixed use condominium with underground mechanical



parking. It was completed early in 2018. The structure is cross-laminated timber floor panels with extensive use of glulam for beams and columns. As prestigious as having the title of 'tallest wood building' in the United States may be, Carbon12's reign at the top is already being threatened. A 148-foot, 12-story building, "Framework", is almost ready to break ground in Portland as well. Patriot Fire Protection is eager to begin installation, having recently completed their design on the fire sprinkler system for this exciting project.

This type of construction is gaining wider acceptance in the Northwest as more "tall wood" structures are being built. The State of Oregon actively promotes the use of mass timber to energize Oregon's timber industry. Oregon State is on the cutting edge of building design, allowing cross-laminated timber in high rises. As national model building codes evolve to allow Cross Laminated Timber in high rises, the fire protection systems have become an important component of these impressive structures. Patriot Fire Protection is proud to be at the epicenter of this movement.

Chuck Rabitoy is Branch Manager with Patriot Fire Protection, Inc.







Leading and Learning through **Education/Sprinklermatic** University

Submitted by Sprinklermatic Fire Protection Systems, Inc.

Having celebrated its 30-year anniversary in 2017, the team at Sprinklermatic knew that change was the key to success, having been born from the field by George "Gene" Collier who knew it was imperative that the message he left behind was that the future leaders of Sprinklermatic were to lead, inspire and educate if they were to not only survive, but thrive in this ever-changing industry. That was made clear by how often he had his nose in any one of the code books. Robin Collier and Timothy O'Brien took that message very seriously as they developed the concept, and now reality, of "Sprinklermatic University", a training and education facility that is open for anyone's use who is spreading the word about fire protection, life safety or leadership in construction.



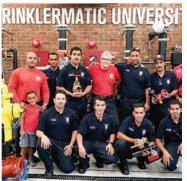
This facility is the backdrop for the ten incredible superintendents who provide service-based leadership to the team of foremen, fitters, and apprentices that make up our "Family First" Team. These leaders can be found having an impromptu course on fire pumps, PRVS, or any other topic on any given Saturday when the request comes to train internally. These men meet the challenge to inspire and educate daily in fire protection, all while leading by example at work and at home!



Sprinklermatic University has hosted the Associated Builders and Contractors Young Professionals' Leadership Group as they discussed "Work Place Culture", where young industry leaders discussed technology, diversity and the future of construction. The feedback was incredible and created multiple requests to use the facility for events to learn more about life- safety and future building integration.



Miami Dade County Fire Rescue has hosted multiple courses at Sprinklermatic University for recruits, as well as officer development training in lieu of building their own facility. Captain Bill Gustin, recognized internationally for his efforts to train and educate firefighters, refers to the facility as "state of the art". He was ecstatic when we offered a course in Spanish while Miami Dade Fire Rescue partnered with Ft Lauderdale Fire Rescue and hosted several officers from South America at their annual conference. In association with the International Association of Fire Chiefs and Saudi Aramco Oil Company, Miami Dade Fire Rescue conducts resident fellowship training programs for Saudi Arabian firefighters. A highlight of their training was a visit to Sprinklermatic University in June of 2018, to receive training on the components and function of fire suppression systems and fire department operations with fire pumps, sprinkler and standpipe systems. The training at Sprinklermatic University was well received by the Saudi firefighters and will be in the curriculum for future classes.



We are accredited through both the Florida Fire College and DBPR to provide continuing education credits to the community. We are excited to offer Sprinklermatic University to our clients, vendors, fire departments, associations, and even the competition for their use. Our mission is to educate the community

on life-safety, provide a platform for service-based leadership and inspire others to do the same. •



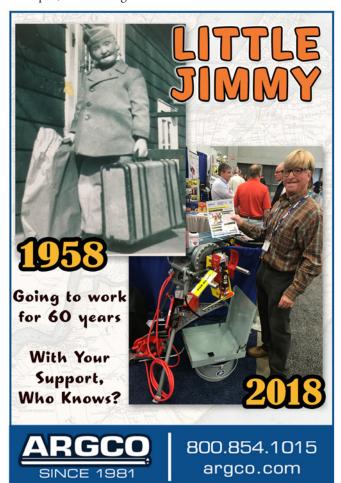


The Jim Stoddard Story

Little Jimmy, burned as a kid, goes to work, starts a company in the Fire Sprinkler Industry

For Jimmy, hard work was never a problem. When he was a kid, Jimmy delivered newspapers, in the morning, often in the dark, he delivered The New York Times and New York Daily News and other papers from the city, and in the afternoon, he delivered the Staten Island Advance. Sunday was a real chore when several hundred pounds of newspapers were dropped at his front door, and these papers were distributed on foot. He said he enjoyed watching the sun come up walking the neighborhood, with dogs barking as he threw the paper towards the front doors and stoops. It was fun.

By age 15, Jim got up at 2:00 am every Saturday and Sunday to wash and grease pans at Ziegler's Bakery. Especially Sunday. It was the busiest, with all the Catholics treating themselves to morning pastries and Sunday bread and dinner rolls. He also worked with Al Daniels, remodeling houses in the summer. Al had polio and he limped, smiled and grunted while he amassed a fortune in real



estate

At 16, Jimmy and his buddies were hired at the local country club to work pool parties and banquets while the other guys served food to the members. Jimmy was pulled aside and sent to work in the kitchen washing dishes and peeling shrimp and opening lobsters. He marveled at the idea that he was to crack the claw and separate the meat from the claw and place it back in the shell.





Little Jimmy at 5

ARGCO founder Jimmy Stoddard at age 63

The Fire

The thing is, on December 4, 1957 when Jimmy was three yearsold, he was in a fire. His face and hands were badly burned, and he was obviously a little too gruesome of a sight to be a food server to the members of Richmond County Country Club, who were used to eating seafood "effortlessly".

His dad told him, "You'll be accepted as long as you can do a job and be of service to others, and you'll just have to be a little nicer than the next guy to make it."

The day after Christmas, each year while growing up, little Jimmy went to Montefiore Hospital in the Bronx where he would spend Christmas break in hospital beds, recovering from surgeries. Those are vivid memories for Jim, being sedated, then strapped to a gurney and rolled down the hallway. He'd watch the lights above him pass and then into the elevator that brought him to the operating room, the cold operating room, where the doctors' faces would lean over and ask him how he was doing, the nurses and instruments were all about. A rubber face mask over his nose and then the smell of ether, while counting backwards from ten, he was out.

While recovering in the hospital, the doctors would have Jimmy's hands tied to the bars on the sides of the bed so he wouldn't scratch his face or remove bandages. He can still hear the orderlies coming from down the hall to care for him, change his bedding, and finally untying his hands. He still loves these jolly black women who brought laughter and smiles into the hospital.

Jimmy would go back in the hospital for Easter school break and notice that some of the kids that he saw at Christmas were still there. The pediatric ward at this hospital was dealing with the worst childhood diseases, and most of those children were not going to get well. These memories make him feel grateful still today. "My father would point out to me what was really going on for these other children and their families," Jim says. His mom would say "Count your blessings."

Getting burned didn't put Jimmy on the sidelines. Jim's friends



would get mad and ask him, "How do you handle it, don't you hate it when people stare at you and make fun of you?" It made him work harder and play harder. Boy Scouts, Little League baseball, CYO basketball and paper routes. Jimmy was too busy living to think much about it.

His father would tell him, "These kids who would mock you have deeper wounds, and you only have scars on your face. You're healthy and smart, you can be anybody you want if you don't start feeling sorry for yourself." Jim's dad would instruct him "Stand up straight, look them in the eye and tell the truth."

Jimmy's dad, a veteran of the Merchant Marines, went to sea before, after, and through World War II "Growing up we had the only house on block that could "sink" at any moment. With seven kids and "torpedoes" everywhere, my shoes were at the edge of my bed, my clothes handy and for God's sake, Little Jimmy was ready for anything!" he says.

"You can be anybody you want if you don't start feeling sorry for yourself."

In 1972, the day after high school graduation, Jimmy hitch-hiked to California...to surf. In 1981, Jimmy started selling telfon tape out of his garage. 37 years later, Jimmy is going strong along with his company, ARGCO. Shaking up the fire protection industry selling to sprinkler contractors all across the globe.

Jim Stoddard's message to today's world is the same his father told him "The world is your oyster You can do anything you can afford No one owes you anything, So roll up your sleeves and get to work." Jim adds, "there is no time to bitch. Complainers have a problem for every solution. The idea would be to take care of what needs be done today and don't worry about the results." •

bigger plans for us.

Shortly after we were in business, an opportunity came to me to join the Florida Fire Sprinkler Association. I saw this as an opportunity to be a voice for the Hispanic Community. I am the furthest member in South of Florida and the only Hispanic Board member.

This is a great opportunity for me to be a voice for the Hispanic community and to participate in all areas that can increase more training and participation for Hispanics. Recently, NFSA has started a Spanish program to help Hispanics learn and take classes for Fire Protection and grow in our industry. As a member of FFSA, I was able to give feedback regarding this program.

The conclusion is that it is possible to be successful and live the American Dream, EPIC Fire Systems started with nothing, but by the grace of God, and by great people in our industry that believed in our vision without asking for anything at the time, we are here.

The responsibility is huge, if you understand the calling, and I hope that we can not only install and provide great fire protection to our customers, but also be a positive influence on others who may not have the opportunity at the time. We can become the road of success for them.

Fire Protection is a passion for us now, and what our industry provides to people is life and protection and the opportunity for people to learn a great career.

> Gregory Toledo President, EPIC Fire Systems



EPIC Fire Systems Vision

by Greg Toledo

EPIC Fire Systems is a dream come true. The dream was to be able to provide a great service, fair and honest pricing and give opportunities to people who could see the vision, and grow with us.

In my career I always felt the need to make a difference and help people who are capable and willing to do great things, and perhaps because of discrimination or language barriers



they haven't had the chance. Before EPIC Fire Systems became a company, there was a great need to have Spanish vocational classes. I was approach by a vocational institute to teach in Spanish, which I did for 5 years. This was just the beginning of a vision, God had



Sprinkler Saves Online

by Barry Waterman

So, is everyone reading the daily reports of successful fire sprinkler system activations that appear on sprinklersaves.com?

I sure hope so.

If you aren't, go to the website and sign up to receive the free reports. There is at least one every day, and often there are several in a day. The reporting comes from literally every state in the U.S. and every province of Canada.



This is the realization of a lifetime dream of mine. Our systems are now so widely used and operate so successfully - time after time - that a fire somewhere in the U.S. or Canada is reduced to a very manageable event and a clean-up.

There is no loss of life and very few injuries, either of occupants or firefighters. Property losses are minimal. The reports are so similar in nature and so routine-sounding that it would be easy to overlook the significance of what is being reported - of what



was just averted.

The reports come from first responders – the folks who go to the location where the alarm has sounded. We owe them a huge debt for this. Sprinkler contractors don't go to fires. In a lot of cases we don't even get a call regarding activations of systems we ourselves have installed.

First responders shut down the system, make the necessary modifications – most often the replacement of a single sprinkler – and restore the system to service before leaving.

I grew up in the home of a sprinkler contractor; my father. I can remember conversations at the family dinner table where he expressed his frustration over how little recognition our industry received relative to the value that we provided. This was in the 1950s and 1960s. He felt that not only was his work not appreciated, but that many of our neighbors and friends had no knowledge of the kind of work he did and little or no appreciation of it.

I could say much the same thing about my own working career and that of my brother, who was my partner. People just knew little of our profession. I think the expression "below the radar" applied to us.

I suspect that other contractors reading this – especially if you come from a family in this business, as many of us do – can identify with this sentiment. In some ways, this condition has still not changed much.

But, I am happy to report that this is not true among the community of first responders. I provide the website – sprinklersaves. com as evidence of this.

I can't say for sure when this happened, but some time during my career spanning 1967 to 2009, it happened. I can also report what is by far the single most important contributor to this happening; our systems work.

Time after time, they perform as intended. In 2018, they are working as intended – as designed and installed – every day. Every damn day.

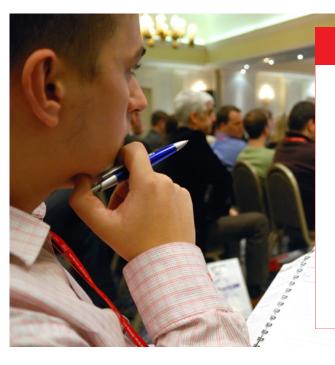
Many can be justifiably proud of contributing to this record of success. This Association, NFSA, has been a large contributor. NFPA, with its good and constantly evolving standards, has contributed. The big insurers and the testing laboratories have played significant roles. The manufacturers of the components of our systems have contributed.

And, of course, our partner in the fight against unwanted fire, the Fire Service, has played a huge role and is now telling this story, every day.

It is a good story, and you can read a new episode every day at sprinklersaves.com. •

Barry Waterman

Formerly of Acme Sprinkler Service Co., Chicago, Illinois Retired and living in Villa Park, IL barry.waterman@gmail.com



FUTURE NFSA ANNUAL SEMINAR SCHEDULE

2019

Omni Downtown

Nashville, TN / May 15-18

2020

JW Marriott Desert Ridge

Phoenix, AZ/April 29-May 3

2021

Cosmopolitan

Las Vegas, NV/May 12-15





Complete Foam Suppression Systems from Viking

Everything for flammable liquid fire protection from one trusted source

Call Viking with your next foam suppression system challenge. Viking's wide range of bladder tanks, discharge devices, grooved and flanged ratio controllers, industrial heat and flame detectors, multi-hazard release control panels, and miscible and non-miscible foam concentrates are FM Approved and UL Listed as complete, integrated systems. As with all Viking products, it's performance you can trust.

Viking Deluge Valves and Halar® Coated Concentrate Control Valves are at the heart of every system – simple, dependable, and time-tested in applications around the world. From oil refineries to liquid fuel storage to power generation, Viking's integrated system components and experienced technical service and support staff will deliver at every stage of your project.



For aircraft hangar and helipad protection, ask about the patented Viking Grate Nozzle. This unique design is installed in the floor trench to quickly distribute foam where aircraft fuel spills typically occur.



Viking foam storage bladder tanks are available in 25 gallon to 5,250 gallon capacities, with 175 psi and 232 psi standard approved pressure ratings - FM Approved, UL Listed, and CE Compliant.

www.vikinggroupinc.com

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Spreading the Good News - Sprinkler Saves

Research shows that positive stories spread faster on social networks than negative news.

This issue, I've given over my space to Jeff Norton. Jeff is the V.P. of Marketing for Viking Group and the keeper of the ever-popular Sprinkler Saves blog that chronicles sprinkler saves around the country. I can't think of a better person to take over Social Scene. Thank you, Jeff, for all you do and for giving me a breather! Joanne Genadio



The classic rule for mass media is, "If it bleeds, it reads." The more negative the news, the more coverage it receives. While this held true for traditional ratings, it doesn't take into account how people process and interact with a news story. With social media, how the reader feels about the story, the emotions that he or she feels, will dictate whether or not it is posted, tweeted, or shared. It's this aspect of "going

viral" that is the new metric for measuring the impact of a news story. And, studies have shown that positive stories are more likely to be shared than negative ones.¹

The media, both traditional and social, have a tremendous impact on how the public perceives any topic, including automatic fire sprinkler systems. Multiple times, every day, a fire sprinkler system controls or extinguishes a fire. Each of these sprinkler saves is a teachable moment, which can be leveraged to help educate others on the life-saving and property-protecting power of automatic fire sprinkler systems.

When a sprinkler activates to successfully control a fire, the event typically doesn't receive significant media coverage. And, when it does, too often the focus is often on water damage rather than on the potential tragedy that was averted. While water damage can be unfortunate, it is, of course, no comparison to the lives and property saved.

In an effort to elevate sprinkler success stories, and to influence how the media reports on them, the "Sprinkler Saves" blog was launched in late 2011 (www.sprinklersaves.com). This blog represents a daily effort to record, post, and promote as many successful sprinkler activations as possible. Each sprinkler save posted to the blog contains a concise headline, including the location of the save, and a brief description. Readers can click through to the media coverage for additional details.

Since its inception, over 3,500 successful sprinkler activations have been recorded. While each of these 3,500+ events has a unique story, looking at them in total makes one wonder about the amount of property damage that was mitigated, the number of injuries avoided, and, most importantly, the number of lives saved. From another perspective, how many deadly fires occurred over this same time frame in non-sprinklered homes and businesses? And, what was the negative impact of these events?

In addition to the lives that weren't lost, the injuries that never happened, and the property that wasn't damaged, these sprinkler successes had a positive impact in other ways as well. A small business that was able to resume operations more quickly. A family not displaced from their home, or displaced for a much shorter period of time. Taxpayer money saved. Toxins not released into the environment. In other words, the positive ripple effect from a sprinkler save casts an even wider net than the lives and property saved. Focusing attention not only on the sprinkler save, but also shedding light on all of the benefits of that sprinkler save, can enhance both the quality and quantity of coverage the story receives, both from mass media and on social networks.

To enhance the blog's status with various search engines and social media platforms, it is important to increase the number of followers to the blog. This in turn will help to generate more exposure for our sprinkler success stories. To view and/or follow the "Sprinkler Saves" blog, please visit www.sprinklersaves.com. Help spread the good news! •

 Tierney, John (2013, March 18), "Good News Beats Bad on Social Networks" (New York Times) Page D-3.

Jeff Norton

Vice President – Marketing Viking Group, Inc. 210 N. Industrial Park Dr. Hastings, MI 49058 jnorton@vikingcorp.com Phone: 269-838-5724

PROFESSIONAL BIOGRAPHY

Jeff Norton, Vice President of Marketing at Viking, began publishing the Sprinkler Saves blog in late 2011. Norton joined Viking in 2003 and has led several teams during his tenure at the company including marketing, business development, technical services, and digital solutions. In addition to earning a Bachelor's degree from Michigan State University in 1996, Norton received a Master's of Business Administration from Wayne State University in Detroit in 2001. Norton began his career with General Motors Corporation in 1996, working in several marketing roles over eight years at Pontiac-GMC and Cadillac Motor divisions.

LinkedIn: National Fire Sprinkler Association Facebook: National Fire Sprinkler Association

Twitter: **@NFSAorg** #fastestwater

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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).





fireadvocates.org

Fire Sprinklers Save Lives



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









MEMBERSHIP

Common Voices: An Advocate's Coalition Determined to Create a Fire Safe America



Individual memberships are set forth in the by-laws as described below:

FRIEND (FREE)

Free to everyone who signs up at www.fireadvocates.org (includes electronic access to *Common Voices News* on quarterly basis).

ADVOCATE (4 LEVELS)

For those affected by fire who wish to support the purpose of Common Voices:

• Platinum	\$1,000 ·
• Diamond	\$500
• Gold	\$250
• Silver	\$100

SUPPORTER (4 LEVELS)

For individuals who wish to support the purpose of Common Voices:

• Platinum	\$1,000+
• Diamond	\$500
• Gold	\$250
• Silver	\$100

CORPORATE (4 LEVELS)

For associations, corporations, agencies, etc. that are interested in supporting the purpose of Common Voices:

•	Platinum	.\$25,000+
•	Diamond	\$5,000
•	Gold	\$2,500
•	Silver	\$1,000

Please mail completed form (and check) to:

Common Voices P.O. Box 162 Pleasant View, TN 37146

ANNUAL DONATION FORM

MEMBER INFORMATION	N				
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ADDITIONAL COMMEN	TS/INFORMATI	ON			

Thank you for your support! Your continued support will help us expand our efforts to create a Fire Safe America, turning tragedy into advocacy. You are appreciated, we are glad to have you on our team! LOOK UP for safety... your life and the lives of your family could depend on it.

MEMBERS in ACTION

General Air



NFSA's Caleb Armbrust presents a plaque commemorating General Air Products 25 years as an NFSA member to General Air President Ray Fremont.





Big catch in Winter Harbour



When he's not estimating projects for Viking Automatic Sprinkler Company or working on NFSA Columbia-Willamette Chapter education projects, Don Krause can be found fishing. Here he poses with a 200-pound halibut he landed in Winter Harbour, British Columbia.

Viking



Viking Automatic Fire Sprinkler Co. of Portland, Oregon, is preparing to install a high-expansion foam system in a Group 4 airplane hangar near the Medford, Oregon Airport. These "fabric hangers" have no water-based fire protection and are used to house private jets. Viking and NFSA have been involved in advocating for strong fire protection as the Oregon code administrators develop new guidelines. •

MEMBERS in ACTION

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Sprinklering a Winery - Viking



This lovely tasting room at Domaine Serene winery located in Dayton, Oregon boasts a state-of-the-art fire protection system as part of a \$35 million project. Viking Automatic Sprinkler Company of Portland, Oregon was challenged to "make the sprinklers disappear," designing ways to integrate the system into the elaborate architectural detail work. Artisans crafted the interior to mimic the 600 year-old winery the owners also own in Burgundy, France. Several architects have reported having a hard time locating the sprinkler system! Building the tasting room at the existing winery presented several water supply challenges, including integrating a 30,000 gallon in-ground tank and vertical turbine fire pump with a 20- foot shaft to supply the fire protection system. Viking's Don Krause, the estimator-project manager reports the wine is perhaps even better quality than the fire sprinkler system! •

What's wrong with this picture?

Thanks to Ronald Banach, Sprinkler Service Manager at Allied Fire & Safety in New Jersey for this "What's wrong with this picture?" Ron says: "Luckily, we caught the electrician before he pulled the wires!" •



2018 BOMA Expo

NFSA Members exhibited at the BOMA Expo in San Antonio, Texas in June.





JG Innovations



NFSA President Shane Ray (l.) with JG Innovations' CEO Jack Grice at the June 2018 NFSA Wisconsin Chapter meeting.

A special hydrant



A smile from Jack Thacker to Rich Ackley...to you! •

Firefighter of the year

Barbara Hoek was a member of the Holtsville, New York Fire Department for 20 years and is now with Bayport, New York Fire Department for one year as of July 10, 2018. Barbara was an emergency dispatcher for the fire service for 13 years and it is her

true passion to help and save lives. In 1992, during her time with the Holtsville Fire Department, she was awarded the most prestigious Firefighter of the Year Award, The Lifesaving Award. She was the first female in the department to receive this award.

Barbara responded to a home fully engulfed in fire down the street from her home. Upon arrival she found heavy smoke and fire. The homeowner's son had stated "his family was still in the house". At



that point she went inside, crawling through glass and the lamp oil which started the fire, to find two victims, she removed them from the home and both family members survived. Well done Barbara! •





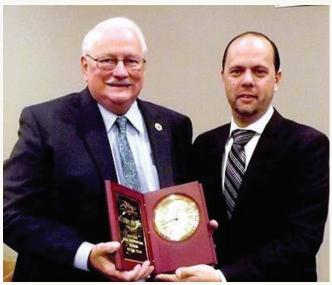
Wayne Automatic Fire Sprinklers



On June 7, 2018 the Florida Fire Sprinkler Association, in partnership with Wayne Automatic Fire Sprinklers, did a side-by-side fire sprinkler demonstration for a group of young women at West Orange VoTech in Winter Garden. The group studied opportunities in the construction industry that didn't necessarily need a college degree, yet were very fulfilling careers. Close to 60 future graduates attended and the questions were endless. It was very exciting to show with our future generation of leaders that they could have a career in life safety making a difference in our world. •

AAF

Buddy Dewar Receives Alarm Association of Florida Fire Service Official of the Year



AAF past president John Toscano presents Buddy Dewar (I) with the award at the AAF Annual Business Conference in Orlando, Florida on May 24, 2018

Buddy Dewar and AAF Executive Director Bob Neely grew up together in South Florida. Both men haven given decades of service to furthering the cause of fire prevention. Buddy Dewar is well known to the industry and his list of accomplishments are legion and far too long to list here. Director Neely has held the post of Executive Director for 20 years and works closely with law enforcement, fire service and contractors to encourage all parties to work together in shaping legislation and ordinances to ensure that effective and safe fire and security systems are installed. and false alarms reduced.

Also, at the 2018 AAF conference Florida Fire Sprinkler Association board member Sean Guthrie was installed as President of their Board of Directors for the 2018-2019 year. Sean is a 38-year veteran of the fire systems contracting industry and has served on the FFSA board since 2011.

For several years the Alarm Association of Florida and the Florida Fire Sprinkler Association have partnered together for purposes of training and legislative issues. Both associations work closely with other trade association and groups to provide specific training and assist with the legislative process.

Sean Guthrie Commerical Fire & Communications, Inc. Clearwater, FL



Clackamas Co. Fire District #1

By Shawn Olson, Deputy Fire Marshal

Just before graduating, the seniors at Molalla High School in Oregon got a high-impact lesson in the importance of fire sprinklers, thanks to the efforts of their classmate Andrew Whiteley.

As part of a senior project, Andrew organized and implemented a side-by-side fire sprinkler demonstration. He presented on the importance of installing residential fire sprinklers and how quickly fire develops, minimizing escape times. He also reinforced the idea of having two ways out and always have working smoke detectors.

Andrew's career path is either becoming a firefighter or working in fire prevention. He will be attending local community college in the fall and then transferring to Chemeketa Community Col-



lege for his Fire Science Degree and Paramedic certification.

As the former chair of the Oregon Fire Sprinkler Coalition, I've been involved in promoting the life-saving value of fire sprinklers throughout our state. It was an honor to assist Andrew and Molalla High School in getting this type of visual message in front of students.

Special thanks to Molalla Rural Fire Protection District #73 and Chief Vince Stafford for partnering on this event.





Best Wishes to Wayne Waggoner on his Retirement

Director of Field Operations Gary West, Director of Outreach & Government Relations Vickie Pritchett and former NFSA Vice President of Regional Operations Buddy Dewar provided a great send off for retiring Regional Manager Wayne



Waggoner at the Tennessee Fire Sprinkler Contractors meeting in Jackson, Tennessee.

Buddy Dewar presented a basket of goodies to Wayne from his colleagues within field operations which carried a Jimmy Buffet theme. Using an approach of a Fire Team bag filled with Wayne stories, Vickie shared a virtual toast to Wayne and his service to the NFSA for 17 years. This bag of toasts included koozies representing significant events throughout Wayne's career at NFSA. This presentation also included an official certificate of service from NFSA President Shane Ray.

NFSA Welcomes Brian Biggs as Southeast Regional Manager

We are pleased to announce the hiring of **Brian Biggs** as our Southeast Regional Manager. He fills the spot vacated by Wayne Waggoner, whose retirement became effective on July 31, after serving 17 years. Brian will have a great legacy left by Wayne to build upon.



"Brian brings a commitment to the mission for the organization, a team attitude for the staff, and a work ethic for the members that builds on a legacy of progress," explained Shane Ray, NFSA President. "Our NFSA team is focused on member service and supporting our vision, mission, and values. Brian will be great addition to Team NFSA."

Biggs most recently served as the Deputy Fire Chief of the Ashland City Fire Department and will remain a volunteer within the system. He has experience in all aspects of fire department operations, community risk reduction, budgeting, performance measurement, HR processes, training and fire prevention and code enforcement. Brian has a vast amount of association experience from the local to the state level. He has traveled extensively with Fire Team USA and has also assisted at NFSA Board of Directors Meetings and E&S meetings.

Brian serves on the Board of Directors for the Tennessee Fire Chiefs Association and is a member of the Tennessee Commission on Firefighting. He will continue in his service to these two boards until his term expires.

"I look forward to working with my NFSA colleagues to advance

the concept of fire sprinklers," added Brian. "I live in a home protected by fire sprinklers and it's a great feeling to be able to focus my passion in a way that will make a difference across the southeast and the nation."

The Field Operations Team will benefit from Brian's experience and Brian will be eager to learn from an experienced and passionate team. Brian will report directly to Gary West, Director of Field Operations. The Southeastern region includes Tennessee, North Carolina, South Carolina, Georgia, Alabama, and Mississippi.

Two Longtime NFSA Board Members Retire, Thank You Gregg Huennekens and Don DeLuca; Welcome Bill Ball and D.J. DeLuca

The last NFSA Board Meeting in Chicago saw two long-time board members retire.

"We can never thank Gregg and Don enough for their service," said NFSA President Shane Ray. "Both have served on Councils and Committees, in addition to the Board, that have led and guided the Association over the course of the past two decades. We owe them a big thank you for the successful position we realize today within the fire sprinkler industry."

Gregg Huennekens and Don DeLuca both submitted their retirement intent, and the Board took action on their replacements. Bill Ball and D.J. DeLuca were appointed respectively to fill out the remainder of their terms.

Don has served on the NFSA Board since February of 1999 and served most recently as Audit Committee Chair. Prior to serving on the NFSA Board, he had served ten years on the NFSA Empire Chapter Board. He was delighted to see his son, D.J. appointed to complete the remainder of his term. Since 1980, SRI Fire Sprinkler, LLC, a family-owned and operated business, has been inspecting, installing and retrofitting fire suppression and sprinkler systems throughout the Northeast and New England.

SRI performs complete installation, ongoing inspection, maintenance and upkeep of fire protection systems, including fire-pumps, standpipe AFF, foam and various special hazard fire extinguishing systems. SRI is headquartered in Albany, New York with regional offices in Buffalo, New York, Poughkeepsie, New York, Syracuse, New York and Waterbury, Connecticut.

Gregg has served on the NFSA Board for 19 years and is also retiring from his post at U.S. Fire Protection and API after 50 total years of being dedicated to the fire sprinkler industry. Gregg's mission statement has been "Imagine the opportunities, reach beyond our grasp, and share generously" throughout his career. He has indeed left the industry better off for his being here.

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DJ Deluca

"It's both an honor and privilege to serve on the NFSA Board of Directors representing Area 1. I'd like to thank the Contractors Council and current Board of Directors for my nomination and confirmation to this seat. Most of all I'd like to thank my father Don DeLuca, Sr. for his mentorship and guidance throughout my career. His commitment and passion for the Association has permeated



throughout SRI's culture and was instilled in me from my first days in the fabrication shop going back to 1987. I currently serve as Chair of the NFSA Empire State Chapter and Local 669 JATC committee member and look forward to continuing to work with all of the dedicated friends and professionals of this great organization in the years to come."

> DJ DeLuca, President SRI Fire Sprinkler, LLC 1060 Central Avenue - Albany, NY 12205 http://www.srifiresprinkler.com (P) 518-459-2776 (C) 518-669-5335

(F) 518-459-0068

Bill Ball

Gregg was happy to pass the torch to Bill Ball, who was appointed to complete his term. Bill is the president of Grunau Company, a mechanical contracting, fire protection, and structural steel and specialty metal fabricating firm, headquartered in Oak Creek, Wisconsin. Grunau operates fire protection offices in Milwaukee, Wisconsin, Indianapolis, Indiana, Youngstown, Ohio, Pittsburgh, Pennsylvania and Orlando, Florida.



Before Bill began work at Grunau, he served in various roles at Delta Fire Systems in Salt Lake City, Utah. He started in 2010 as a Project Manager, and within a year took the role of Operations Manager. He was then promoted to President in 2012. Delta Fire operates fire protection offices in Utah, Idaho, and Nevada.

Prior to joining Delta Fire, Bill served nine years in the U.S. Army, first as an Infantry officer with the 101st Airborne Division and finished his career as a commander with the 10th Special Forces Group (Green Beret). Bill served combat tours in Iraq and Afghanistan. He is dedicated to advancing innovation and sustainability within the construction industry.

Outside of work, Bill enjoys spending time with his wife, Erica, their son, Will, and daughter, Hailey.•





Russell Leavitt Honored with Special Achievement Award

Russell B. Leavitt, Executive Chairman of Telgian Holdings, Inc., was recently recognized with a Special Achievement Award by the National Fire Protection Association (NFPA).

The award, which was presented during the Technical Committee Session, celebrates the significant contribution of a committee member to a single project that has enhanced the NFPA Standards Development Process.



Leavitt's active role as Chair of the NFPA 13 Restructuring Task Group for the 2019 Edition led to the recognition. "NFPA 13 is recognized globally as the benchmark standard for the design and installation of fire sprinkler systems. The reformatted NFPA 13 is designed to make this widely used document easier to use and interpret for non-expert users," explains Leavitt.

Over the course of 18 months, Leavitt exhibited incredible dedication to the project, attention to essential details, and strong leadership skills. "Under his direction, the task group developed a methodology for tracking changes of each section of the 2016 edition," says Bell. In addition, "Russ educated stakeholders of the impending reorganization: presenting at several industry association conferences, answering questions, and ultimately alleviating any lingering concerns around the restructuring. The daunting undertaking of this restructuring was made successful and seamless by Russ's personal investment in achieving the task assigned by the Correlating Committee."

Reliable Hires New Outside Sales Rep

Reliable Automatic Sprinkler Co., Inc. is proud to welcome Cole Graves as its newest Outside Sales Representative for the Southeastern market. Cole is a recent graduate of Gardner-Webb University and has a degree in Business Administration. During his time there he was involved with the Student Athlete Advisory Committee and was a captain on the wrestling team. Last summer Cole worked as an intern for



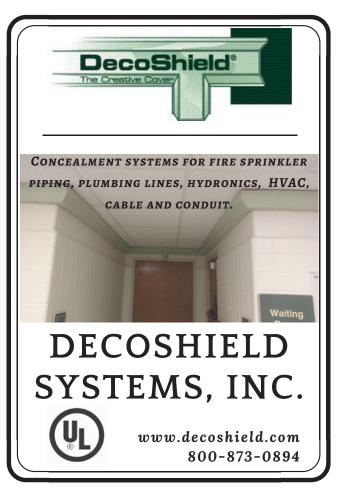
Cleveland County Economic Development where he aided in recruiting industry and talent to the county. He will be relocating to Nashville where he will represent Reliable in the Tennessee, Northern Alabama and Kentucky markets. Cole is an enthusiastic, self-starter who is ready to begin a successful career in the fire protection industry. He will report to A.J. Renteria, Regional Sales Manager based in Atlanta.

Reliable Promotes Daniel Merritt

Daniel T. Merritt promoted to Director of Sales, Territory II, for Reliable Automatic Sprinkler Company. Dan started as an outside sales representative for Reliable in November 2000 and twice became Salesman of the Year and while Regional Manager, was Manager of the Year 3 times. A graduate of Southern Methodist University, Dan is now responsible for Texas, Arkansas, Oklahoma, Louisiana, Mississippi, Tennessee, Georgia, Kentucky,



Florida, North and South Carolina, all Latin America and the Caribbean. He will report to Kevin T. Fee, Jr., Vice President of Sales, Americas. For the past three years Dan has and continues to serve on the NFSA North Texas Chapter Board.•



SPRINKLING OF NEWS

Johnson Controls New Podcast Series

Johnson Controls has launched a new podcast series called "Building Connections." The series connects Johnson Controls leaders and industry experts with customers, employees and others to offer insight into the evolving technological connections within built environments.

In the first episode of Building Connections, the company interviewed Imran Riaz, vice president of User Experience (UX). Learn how Riaz' team is uniting the Johnson Controls Buildings product portfolio with a consistent look and feel to create a better experience for customers. You'll also learn about the influence Apple designers have had on Riaz' career, the new GLAS smart thermostat, his background as a fighter pilot and much more.

To view the podcast on YouTube, please visit https://www.youtube.com/watch?v=zQ8iHsznnYs&feature=youtu.be

Viking Launches Mobile Support App for Sprinkler Installers

The Viking Group has announced the launch of a new mobile app to provide technical assistance to installers in the field.

The Valve & System Support App acts like a virtual assistant, providing instant access to technical data, instructional videos, system maintenance and repair instructions, and replacement parts directly from a phone or tablet.



The Valve & System Support App provides a full suite of resources for maintenance of Viking's line of Wet and Dry Valve systems via an intuitive, step-by-step diagnostic process. Users can select common maintenance and repair operations and walk though simple prompts to keep their fire protection systems in top working order.

The app also provides access to instructional maintenance and repair videos, technical datasheets, and manuals. Sprinkler contractors can request spare parts directly from the app.

Features of the mobile app include the following:

- Step-by-step walkthroughs for common valve system maintenance operations
- Frequently asked questions and common part replacements
- Quick access to technical datasheets, product manuals, and twenty-one new service and repair videos
- "Get Help" feature to contact Viking Technical Services
- Find a Viking SupplyNet distribution or fabrication facility
- Support for the following Viking systems:
 - Model F Dry Valve
 - Model G Dry Valve
 - Model J-1 Alarm Check Valve
 - EasyRiser® Check Valve

- EasyPacTM Riser Assembly
- Additional systems, including deluge and preaction, will be added in future releases

The new Viking Valve & System Support App is available now for both Android and iOS on Google Play and the Apple Store.

Simplex ES Net IP-Based Life Safety Network Adds Speed and Resilience to Fire Detection and Life Safety Systems

Johnson Controls' new Simplex life safety network greatly increases the speed and ease at which fire detection and life safety systems communicate and operate. The Simplex ES Net Life Safety Network harnesses the power of IP technology with data rates up to 100MB per second and a range of network connection choices including Ethernet, DSL and fiber.



It gives building owners reassurance knowing as the IP standard evolves, so will ES Net, making the life safety system resilient and future-proof.

Simplex ES Net also provides greater flexibility during network expansion. By allowing up to 82,000 feet (25 Km) between units, ES Net gives users more options to meet performance and budget requirements. The network's increased memory capacity and broad bandwidth helps improve uptime, ensure more consistent performance and support future expansion and enhancements.

With the system's TrueSite Workstation Mobile Client, network monitoring and management can easily be completed on a mobile device or single console. Advanced diagnostic tools ensure fast installations, easy commissioning and quick, efficient pinpointing of network performance and connection issues.

For more information on Johnson Controls' fire and life safety systems, go to http://www.johnsoncontrols.com/buildings/security-and-fire-safety.

C-Aire Compressors Announces Winner of the S261R-LD1-115PD at NFPA Convention

C-Aire Compressors is excited to announce the winner of a S261R-LD1-115PD fire sprinkler air compressor.

The lucky winner is:

John "Randy" Stubblefield

Fire Safety Systems Shop, Austin, Texas

Congratulations John "Randy"! We would like to thank everyone who participated.



The S261R-LD1-115PD is a compressor model with a digital pressure switch which eliminates the need for an air maintenance device. The switch can be set to the desired pressure in seconds, saving time and money. It is 27" tall and whisper quiet making it ideal for quiet settings such as nursing homes, office buildings, apartments and churches. The unit mounts to risers 2.5" and larger and can also be installed on drywall, cinder block or concrete walls. A mounting bracket and 30" steel braided flex hose is included. The digital pressure switch has a setting range of 5-55psi and has a minimum differential of 5 psi. The digital pressure switch has a large screen with easy to understand settings. Both the unit and switch are CSA listed to UL standards in USA and Canada. For more information and specs on the S261R-LD1-115PD and all of our fire sprinkler air compressor line see www.c-aireinc.com.

New Tyco® ESFR-22 Sprinklers from Johnson Controls

Johnson Controls announces its new Tyco[®] Early Suppression Fast Response (ESFR)-22 pendent sprinklers has joined the Tyco line of storage sprinklers.

The ESFR-22 can be installed in storage facilities with a ceiling height up to 45 feet and a storage arrangement up to 40 feet without requiring in-rack sprinklers. The system can also be installed with a maximum deflector-to-ceiling distance of 18 inches, resulting in



a reduction of product and installation costs, as well as increased storage space due to higher roof/rack heights. Facility owners gain additional flexibility with stock configurations and eliminate costly in-rack sprinkler service, repair and maintenance.

Model ESFR-22 sprinklers are pri-marily used for ceiling-only sprinkler protection of, but not limited to, the following storage applications:

- Most encapsulated or non-encap-sulated common materials, including cartoned, unexpanded plastics
- Uncartoned (exposed) expanded plastics
- Some storage arrangements of rubber tires, roll paper, flammable liquids and aerosols

The ESFR-22 meets National Fire Protection Association (NFPA) and FM Global (FM Approvals) installation standards that must be used to properly design an automatic sprinkler system utilizing ESFR Sprinklers.

The ESFR-22 joins the broad line of Tyco storage solutions. For more information, visit http://www.tyco-fire.com. For questions or support, contact technical services at 800.381.9312.

Core & Main Acquires St. Louis Fabrication & Supply, Expands Fire Protection Offering to St. Louis Region

Core & Main LP announced that it has completed the acquisition of substantially all of the assets of St. Louis Fabrication & Supply, one of the leading providers of fire protection product fabrication and distribution in the St. Louis area and surrounding markets. This acquisition marks the second by Core & Main since becoming an independent company in August of 2017. Effective June 18, the custom fabrication business will operate as a key part of Core & Main's Fire Protection business. Financial terms of the transaction were not disclosed.

Rick Jamison, former president of St. Louis Fabrication & Supply, will lead the business development efforts for Core & Main's Fire Protection business in the St. Louis area and adjacent markets. "I'm thrilled to join the Core & Main family, which will provide tremendous opportunity to further develop our business throughout the Midwest, as we continue to provide first class service to our customers," said Jamison. "My team and I look forward to leveraging Core & Main's tremendous knowledge and expertise to achieve our shared vision for the future."

Two Years of Work Behind New UL Certification for BlazeMaster

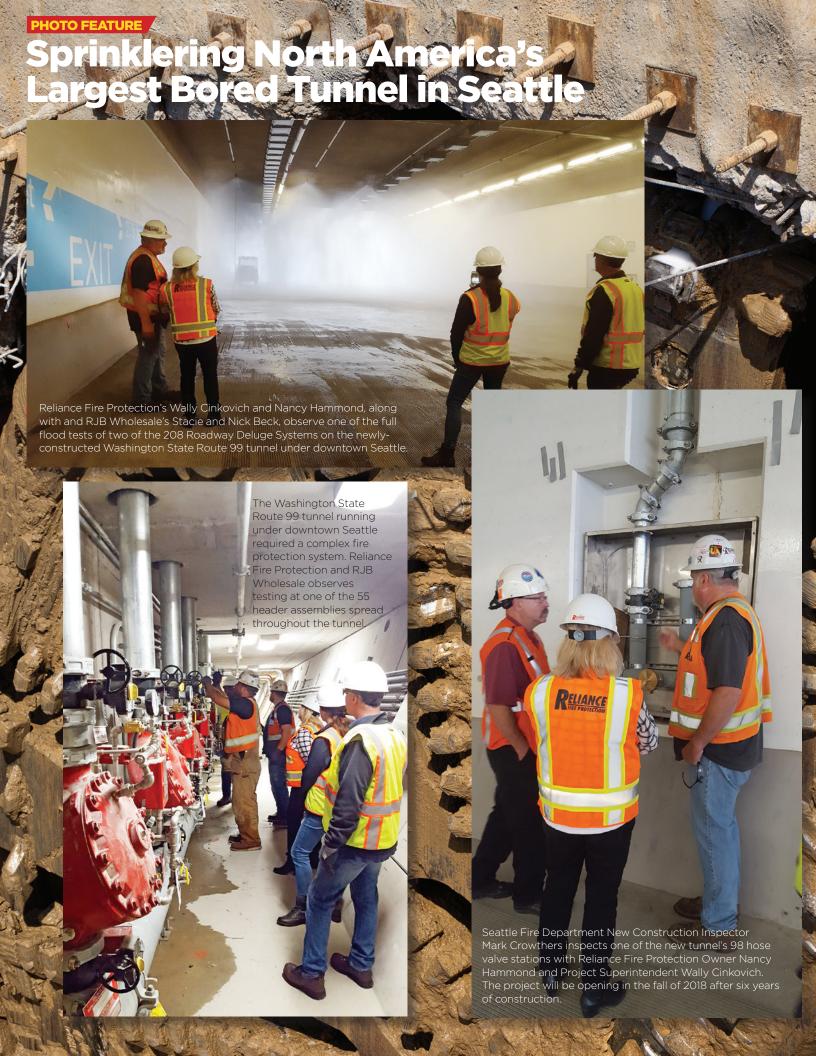
It's only a certification to UL Standard 1821, but it represents two years of research and development on the part of BlazeMaster® Fire Protection Systems.

BlazeMaster Pipe & Fittings has updated its UL certification for use in basements with exposed joists up to 16 inches in height and expanded blocking requirements to 40 feet. Previously, it had been certified for use in basements with exposed joists only up to 12 inches in height and blocking requirements to 32 feet. It is now the only CPVC fire sprinkler system to be approved for use in basements with exposed joists up to 16 inches in height.



The push for the new UL certification began at a 2014 meeting BlazeMaster Fire Protection Systems held with fire sprinkler

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



New England Region

MICHAEL YOUNG Regional Manager

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

Massachusetts Department of Fire Services accepts Donation of Burn Trailer from NFSA and Local # 550 Sprinkler Fitters Union

Massachusetts State Fire Marshal Peter J. Ostroskey and Dan Bennett, Secretary of the Executive Office of Public Safety & Security were on hand at the Massachusetts Department of Fire Services in Stow, Massachusetts to accept the donation of a Residential Fire Sprinkler Side-by-Side Burn Demonstration Unit Trailer generously funded through the efforts of Local #550 Sprinkler Fitters & Apprentices of Boston and the National Fire Sprinkler Association.



The National Fire Sprinkler Association was represented by President Shane Ray, Outreach and Government Relations Director Vickie Pritchett, ,and retiring New England Regional Manager David LaFond. Officials present from the sprinkler industry were Local #550 President Peter Gibbons, NFSA Boston Chapter Chairperson Steven Cook, Industry Promotions member Christopher Paquin.

In addition to Fire Marshal Ostroskey, and Director of the Division of Fire

Safety Paul Vigneau and employees of the Fire Academy, the fire service was well represented by Whitman Fire Chief Tim Grenno, current President of the Fire Chief's Association of Massachusetts and Captain Rick Tustin Winchester Fire Department and member of the Board of Directors of the Fire Prevention Association of Massachusetts.

Secretary Bennett and Marshal Ostroskey both thanked Local #550 and NFSA for their efforts to promote public safety through advocating for enhancements in fire and building codes and standards through the inclusion of fire sprinklers in dwellings.

Following their remarks, President Ray narrated the live burn demo, in which two identically furnished rooms, both with smoke alarms on the ceiling were lit on fire to show how rapidly a fire develops, especially with modern day synthetic based materials. A waste paper basket placed next to the couch was the source of heat for the fire. The smoke alarm sounded in about 20 seconds, when the smoke rose to the ceiling, but the fire continued to burn and increase in intensity. "Today you have less than 3 minutes to escape from your homes, once a fire starts, due to the extremely high heat release rates of materials found in our residences." The

room without fire sprinkler protection reached 'flashover' or full room involvement in just under 3 minutes from the time of first visible smoke. The atmosphere inside a home at this point would not be survivable.



By contrast, the room protected with a single residential fire sprinkler head sustained very little fire damage. The smoke alarm sounded just as the one in the unprotected room had done within 20 seconds of the ignition of the paper in the waste basket and flames caught the drapery on the wall on fire, but the heat at the ceiling was high enough (155 degrees F.) to activate the residential fire sprinkler head quickly, within the first 30 seconds of this demonstration. The fire was contained and controlled by the single fire sprinkler, which discharged about 15 gallons per minute with minimal damage to the room and contents, as opposed to the 150 gallons per minute from a fire hose.

The proven and reliable fire safety and lifesaving technology of fire sprinklers has been around for over one hundred years in industrial, commercial, business and assembly occupancies. More recently hotels, large apartments and multi-family buildings have been equipped with fire sprinkler systems to protect occupants, however, in most of the United States, the structures where most fire deaths and injuries occur, in one and two-family dwellings lack the fire protection that fire sprinklers can provide.

Secretary Bennett and Fire Marshal Ostroskey gratefully accepted and praised "This valuable tool, which will be available to our fire departments across the Commonwealth, to conduct public fire & life safety education and to vividly demonstrate the power of fire and the lifesaving benefits of fire sprinkler to our citizens."

> Michael Young NFSA's Regional Manager / New England email: young@nfsa.org phone: 443.743.3870

> > continued on page 72

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New York Region

DOMINICK KASMAUSKAS **Regional Manager**

NEW YORK

NYC Construction Safety Training and LL196-2017

Local Law 196 of 2017 requires workers and supervisors at certain construction sites receive safety training. The safety training requirements will be phased-in in three parts beginning on March 1, 2018, with full training being required no later than September 1, 2020.

For more information on Local Law 196 of 2017, including more detailed information on the types of construction sites where training will be required and the types of workers that must be trained, visit the Department's website.

Fire Sprinkler Success-Massena High-Rise **Apartment Complex Saved**

The building's sprinkler system was able to douse a kitchen fire late Saturday night on the eighth floor of the Laurel Terrace high-rise apartment complex. Tenants were able to return to their apartments, and no temporary housing was required despite any water damage their apartment may have suffered.

Home Fire Sprinkler Day in New York State



Courtesy of New York State Assn of Fire Chiefs (NYSAFC) - The Oneonta Fire Department demonstrated its new portable fire sprinkler burn pod built by students from Otsego Northern Catskill BOCES (Board of Cooperating Educational Services). NYSAFC provided funding to support construction through its NFPA & FEMA fire sprinkler grants. Great project to raise awareness about fire sprinklers!

> Dominick Kasmauskas NFSA's Regional Manager / New York email: kasmauskas@nfsa.org 1436 Altamont Avenue, Suite 147 Rotterdam, NY 12303, Phone: 518.937.6589, Fax 518.836.0210

Mid-Atlantic Region

DELAWARE, NEW JERSEY, PENNSYLVANIA,

NJESAR

The New Jersey Fire Sprinkler Advisory Board has been busy in the past month conducting burns throughout the Garden State. In June, the Board participated in four events that reached over 400 people. Those numbers are expected to climb in the coming

The New Jersey Chapter's annual golf outing was also a huge success. Over 100 individuals attended the event that benefited the FMBA and the Phoenix Society for Burn Survivors. Photos from this event can be found on saveandprotect.org.

PenJerDel

The PenJerDel Chapter was also busy this past month, attending numerous events in the Delaware Valley. The Chapter was present at three burn events that reached nearly 300 people. The Chapter worked with the Limerick Fire Company for their annual Fire Camp. Over 140 fire cadets in attendance learned the basics of how a residential fire sprinkler system works, how these systems save firefighter lives, and about future careers in fire protection.

The Chapter also had a presence in the Delaware Fire Sprinkler Coalition's meeting in Dover, Delaware. Many AHJs and firefighters in attendance expressed an interest in the Chapter's services. Chapter members look forward to being a free resource for officials in Delaware.

Book Your Burn Trailer Event Today!

Burn trailer season is officially open for New Jersey, Pennsylvania, and Delaware. The burn trailer is free and is a great addition to any outdoor event, be it a firefighting event, professional function, school event, or community day. An NFSA staff member will conduct the burns and speak to those in attendance about fire sprinklers and fire safety.

Both NJFSAB and the PenJerDel chapter offer side-by-side burns and grant burns. These events are free as well, and allow the audience to see the effectiveness of a fire sprinkler system, and how quickly a room reaches flashover.

October is quickly filling up! Book your event today by visiting saveandprotect.org.

Fire Prevention Week 2018

From October 7th to 13th, the New Jersey Fire Sprinkler Advisory Board (NJFSAB) and the PenJerDel Chapter of the NFSA will be attending nine events throughout the state, ranging from Sussex County in the north all the way down to Camden County in the south. This year's lineup includes many new locations that the NJFSAB and the PenJerDel Chapter are excited to explore. One of the scheduled events will feature a side by side burn demonstra-



tion and the others will feature the burn trailer, which includes an informative lesson on fire sprinklers which is then followed by a live demonstration. The grant burns the NJFSAB and PenJerDel Chapter offer are free to fire departments and other professional organizations and make for great educational events for any community outing. In addition to Fire Prevention Week, the NJFSAB and the PenJerDel NFSA Chapter have 13 events scheduled in October, totaling 23 for the month and counting.

For more information on the efforts of the NJFSAB and the PenJerDel NFSA Chapter, feel free to contact us online at save-andprtoect.org or call us at 866-226-6006.

Please see our schedule for the 2018 Fire Prevention Week below, as well as some photos from last year's events.

10/7 - Cranford Side by Side Grant

10/8 - Tabernacle, New Jersey

10/9 – Pine Hill, New Jersey

10/10 – Newton, NJ & Upper Saddle River, NJ

10/11 - Woodcliff Lake, NJ

10/12 - Stillwater, NJ & Nutley, NJ

10/13 - Hopewell, NJ



Maryland Region

TERIN HOPKINS

Regional Manager

MARYLAND, VIRGINIA, WASHINGTON D.C.

Clear Spring Volunteer Fire Company Receives Federal Funding to Install Fire Sprinkler System in Fire Station

The Clear Spring Volunteer Fire Company will receive \$94,132 in federal funding to install a sprinkler system in the department's station.

U.S. Senators Ben Cardin and Chris Van Hollen announced the funding, available through the Federal Emergency Management Agency's Assistance to Firefighters Grant program.

The new sprinkler system will bring the station into compliance with National Fire Protection Association standards.

"Our first responders deserve safe, updated work facilities capable of protecting them while they go about the dangerous business of protecting us," Cardin said in the release. "These funds represent a federal investment in Clear Spring Volunteer Fire Company's safety and security, and I'll keep fighting to ensure all our first responders, in every corner of our state, have the resources they need as well."

Added Van Hollen: "Ensuring that our local firefighting facilities are up-to-date is crucial to our firefighter's ability to do their work safely. This funding will help the Clear Spring Volunteer Fire Company station meet the top safety standards."

Terin Hopkins NFSA'S Regional Manager / Maryland email: thopkins@nfsa.org (cell) 443.745.4142 (office) 443.7433858



Southeast Region

BRIAN BIGGS
Regional Manager

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

Small Fire Causes Evacuation at Bellevue, Tennessee Senior Facility

A small fire caused a senior living facility in Bellevue, Tennessee to be evacuated around 1:30 a.m. at NHC Place at the Trace in Bellevue.

Firefighters arrived to find smoke and noted a fire sprinkler system had been activated inside one resident's room, which extinguished the fire.

Fire officials believe a phone charger plugged into a wall got hot and ignited some clothing and paper nearby.

The fire activated the facility's sprinkler system, which put out the fire. Though everyone evacuated safely, one person was hospitalized with minor injuries.

This was facility was fire sprinklered due to an action by the Tennessee State Legislature in 2005 after a nursing home fire in Nashville that took 16 lives due to a fire.

Brian Biggs NFSA'S Regional Manager / Southeast email: biggs@nfsa.org Phone: 615.642.9717







Florida & Puerto Rico

LORRELL BUSH **Regional Manager**

FLORIDA, PUERTO RICO

We had nine Area Interest Meetings across the state in July and had a total number of contractors, AHJs and Suppliers reaching over 300. NFSA's Jeff Hugo and Vince Powers presented at these meetings on "The Evolution of Third Party Reporting". The next run of meetings will be in September and October and will be presented by Top Myers and Wilt Marburger on "Risk Management"



On Thursday, August 2, 2018, the Florida Fire Sprinkler Association along with AFSA FL held a Legislative Day in Daytona Beach. Several legislative officials and hopefuls attended and shared their vision with our groups. The candidates included Elizabeth Fetterhoff, Republican for House District 26, Ed Hooper, Republican for Senate District 16, Senator Dennis Baxley, Republican for Senate, District 12 and joining us for lunch was Florida's very own CFO Jimmy Patronis. It was a very informative day and well attended by both board members and association members. Everyone learned a little bit more about the candidates and the legislative process.

If you have questions on any of the candidates please reach out to your Association at bush@nfsa.org

Most importantly please don't forget to VOTE, every vote counts!



Joey Hatfield, President FFSA, Senator Dennis Baxley, Chris Johnson, Chairman AFSA FL



Florida's CFO Jimmy Patronis addressing the group



LtoR, Joey Hatfield, President FFSA Lorrell Bush, Exec Director FFSA, CFO Jimmy Patronis, Carolyn Mohr, Exec Director AFSA FL and Chris Johnson, Chairman, AFSAFL

Lorrell Bush NFSA's Regional Manager / Florida & Puerto Rico email: bush@nfsa.org

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Phone: 352.589.8402 Cell: 954.275.8487, Fax: 561.327.6366





Great Lakes Region

RON RITCHEY
Field Service Coordinator

INDIANA, MICHIGAN, OHIO, WEST VIRGINIA, KENTUCKY

be retiring this summer after 40+ years of dedication and leadership to the fire sprinkler industry. Bob Tinucci

formal recognition of Area Director Gregg Huennekens, who will

NFSA's Regional Manager / Illinois email: tinucci@nfsa.org. 6401 Richmond Avenue, Willowbrook, IL 60527 phone/fax: 630.655.1875 / cell: 630.514.1601

Indiana Chapter of NFSA formed

On May 30, 2018, NFSA President Shane Ray and Director of Field Operations Gary West visited Indiana and attended a meeting with our members to explore interest in creating a new chapter in Indiana. The response from our members was unanimous in favor of the creation of a new chapter and the process is now underway to elect officers and formalize strategic goals and objectives. This development will position us to more effectively achieve our mission "to protect lives and property from fire through the widespread acceptance of the fire sprinkler concept" and allow us to provide an even greater value to our members.

Ron Ritchey Regional Manager, Great Lakes Region 3311 Dover Court, Lafayette, IN 47909 Phone: 765.412.6707 email: ritchey@nfsa.org



Wisconsin Region

MARTY KING
State Coordinator

WISCONSIN

Sprinkler System Helps Keep Fire from Spreading at Uniform Business

It took firefighters about 45 minutes to put out a fire at a company in an industrial park in Wisconsin Rapids. A fire started in continued on page 76



Illinois Region

BOB TINUCCI
State Coordinator

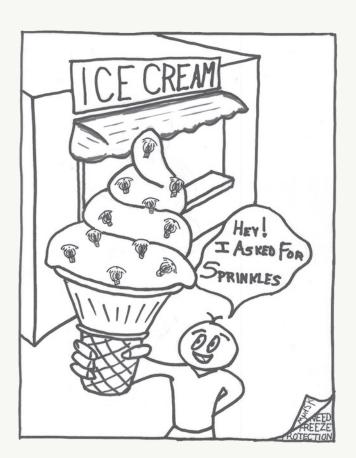
ILLINOIS



The NFSA Illinois Chapter was host to the first ITM Third-Party Summit held in Chicago on June 19th, 2018. The program included presentations from several third-party vendors , area AHJs, and State licensing officials, sharing their experience with third-party reporting in Illinois. Many of the latest technologies, benefits and challenges were discussed. The Summit concluded with a panel of experts to address questions or concerns with third-party reporting.

NFSA Board of Directors in Chicago

NFSA's Illinois Chapter hosted the NFSA Board of Directors dinner in Chicago on June 20th in conjunction with the Board meeting. The attendees included Chapter officials, Industry Promotions Representatives, area contractors, NFSA Staff, Board members, and several SAM members. The evening was also highlighted in a





totes of oily rags and spread to a nearby storage shed and forklift. From there, the fire spread to the UniFirst Building and activated a sprinkler in the building. It took firefighters about 45 minutes to put the fire out.

National Home Fire Sprinkler Day - Wisconsin

The NFSA Wisconsin Fire Sprinkler Demo Trailer was present at the New Berlin Safety Days held on May 19, 2019 at the Children's Hospital Clinic. This annual event coincided with the National Home Fire Sprinkler Day celebration. This family event educates all ages on many safety areas. The Fire Sprinkler Trailer was staffed by Marty King, NFSA WI State Coordinator, Sprinkler Fitters Local 183 Business Manager Corey Gall, and Fitter Greg Kempen. The event was attended by over 1,000 people. 12 demonstrations were provided to over 150 people. This event allowed them to see how quick fire grows and how fast fire sprinklers respond.

The Fire Sprinkler Demo Trailer is requested at over ten events annually and is staffed by members of Local 183. They provide information on fire and advantages of fire sprinklers. The trailer is currently in the process of upgrade to address some maintenance issues and to bring more information for those attending. The trailer will get a full wrap on the exterior and provide education panels on the interior that will present information on fire sprinklers, fire timeline, and careers in the fire sprinkler industry. This will assist in keeping people's attention between demo set-ups.

> Marty King NFSA's State Coordinator email: king@nfsa.org 3317 South 113th Street, West Allis, WI 53227 Phone: 414.531.9542



Minnesota Region

TOM BRACE **State Coordinator**

MINNESOTA

Burn Aid and Burn Demo!

The 22nd Annual Burn Aid Golf tournament will be on October 1, 2018 held at Dellwood Country Club in Dellwood, Minnesota. The Burn Aid organization has just received its 501 c (3) status from the IRS. This will allow us to officially tell our donors that their donations are tax-deductible.

NFSA's Minnesota Chapter has been invited to present a sideby-side demonstration on October 11th at the Midwest Region Burn Conference hosted by Regions Hospital Burn Center. This event will be held in Bloomington, Minnesota.

Tom Brace NFSA's Regional Manager / Minnesota email: brace@nfsa.org 1433 Idaho Ave West, St. Paul, MN 55108, Phone: 651.644.7800

Missouri Region

MISSOURI

St. Louis Adopts 2018 ICC Codes, Leaves Out Fire **Sprinkler Requirements**

On August 1st the City of St. Louis became the first municipality in the region - and one of the first nationwide - to adopt the 2018 suite of codes by the International Code Council. However, one amendment waives the requirement for the installation of automatic fire sprinkler systems in townhouses, single-family homes, or multi-unit dwellings of four or fewer units. As before, the builder of any such residences is required to offer buyers the option to install or equip fire sprinklers in the dwelling, residence or unit – though in practice, few seem to be aware of this longstanding St. Louis requirement.

Central Region

IOWA, KANSAS

Fire Department Credits Fire Sprinkler System with **Saving Altoona, Iowa Apartment Complex**

Firefighters responded to a call from the Venbury Trail apartments in Altoona, Iowa after a resident said their couch was on fire. When crews arrived, they found the unit fully engulfed in flames. Luckily, the building's sprinkler system was activated, which helped firefighters knock down the flames.

"Very fortunate, the sprinkler did its job. Engineered correctly, in this type of building the sprinkler system probably saved a lot of lives today," said Chief Jared Ogbourne of the Altoona Fire Department.

Fire crews say only those in the unit where the fire started were displaced, and most residents were allowed back into their homes the same day.





South Central Region

CYNTHIA GIEDRAITIS
Regional Manager

ARKANSAS, LOUISIANA, OKLAHOMA, TEXAS

BOMA International 2018 - San Antonio, Texas



NFSA South Central hosted BOMA International 2018 in San Antonio, June 24-26. BOMA is the Building Owners and Managers Association whose members manage over 10.5 billion square feet of commercial building space. Texas has the most BOMA 360 Designated Buildings, which recognizes commercial properties that demonstrate best practices in all major areas of building operations and management.

Five NFSA Members exhibited at the BOMA 2018; including:

- Western States Fire Protection San Antonio
- American Fire Protection Group
- AGF Manufacturing
- Potter Electric Signal Company LLC.
- Viking Supply

Side-by-Side Burn Demonstration - League City, Texas



FSCATX – Fire Sprinkler Contractors Association of Texas hosted its first sice-by-side burn demo at the Skins & Fins on June 8, 2018. Fire Marshal Greg Bozdech and Chief Roland Garcia of Pearland Fire Department provided the Burn Trailer and Fire Marshal Tommy Cones of League City Fire Department coordinated the fire response. American Fire Systems, Inc. provided the fire sprinkler system for the burn trailer.

Cindy Giedraitis NFSA's Regional Manager / South Central email: giedraitis@nfsa.org PO Box 10403, College Station, Texas 77842. Phone: 979.324.8934



Great Plains Region

ROBERT GEISLINGER
Field Service Coordinator

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

On May 18, NFSA member Bill Stelter, of Master Control Systems, gave an excellent presentation on Variable Speed Fire Pumps and Controllers at the bi-monthly meeting of the Fire Marshals Association of Colorado. Attendees included fire officials, building officials, and several industry representatives.

FMAC meets bi-monthly on the third Friday of odd months, with the exception of July. Classes are open to anyone and, as an ICC Preferred Provider, are accepted as CEU's by most certifying bodies.

On June 18, in Longmont, CO, structure fire was reported at the Target Store located at 551 S. Hover St. at 4 AM. Upon arrival firefighters found the store filled with smoke. Responders indicated that the sprinkler system extinguished the bulk of the fire prior to their arrival. No employees or firefighters were injured during the incident. The fire was later determined to be the result of arson. View the full story here: http://www.timescall.com/longmont-local-news/ci_31952260/sprinkler-system-firefighters-extinguish-early-morning-fire-at.

Over the past few years, NFSA's Side-by-Side sprinkler Demonstration (Burn) Trailer, stationed in the Denver area, has endured at least fifty to sixty burns and needs some TLC. After a recent burn in Windsor, the trailer was taken out of service for refurbishment. It is currently at North Metro Fire Rescue where the crew at Station 66 has agreed to reframe and reside the burn box. Local 669 has agreed to re-pipe the sprinkler system, the CPVC piping of which has been exposed to several years of Colorado's intense UV rays. Repairs are expected to be completed in the next few weeks,



with two burns scheduled in the first week of August.

If you would like to use this great demonstration piece, contact Rob Geislinger at geislinger@nfsa or 720-457-9292

> Rob Geislinger Field Service Coordinator / Great Plains Region Office: 845.878.4200 Direct: 443.312.2206 Cell: 720.457.9292



Southwest Region

BRUCE LECAIR Associate Director of Regional Operations - WEST

CALIFORNIA, HAWAII, NEW MEXICO, NEVADA ARIZONA

NFSA Chapters in the Southwest Meet and Announce **Meeting Schedules**

The Los Angeles Area NFSA Chapter met on June 21st at the Rio Hondo Golf and Event Center for a great meeting with exchanges of information and NFSA reports and statewide information and updates from the Office of the State Fire Marshal and the Fire Prevention Officers given by Regional Manager Bruce Lecair. The remaining Chapter meeting will be held on October 18th.

The San Francisco Bay Area Chapter met on May 24th at Saki's Spin A Yarn Restaurant in Fremont, CA. The meeting featured updates and reports from Regional Manager Bruce Lecair. The next Chapter scheduled for July will likely be postponed due to contract negotiations.



The San Francisco Bay Area Chapter will meet again on September 27th at Saki's Spin A Yarn.

The Arizona State Chapter will hold their next meeting on July 10th at the Phoenix Fire Department Headquarters at 150 S. 12th Street in Phoenix, Arizona. The meeting feature discussion on local issues related to the fire sprinkler industry and a report from Regional Manager Bruce Lecair. The next meetings will be held on, September 11th, and concluding the 2018 schedule on November 13th.

NFSA Training in the Southwest

Training is the Southwest has been very busy this year, with seminars held in Tucson, Arizona., Merced, California, San Marcos, California, Reno, Nevada and Los Angeles, California. We are still fielding requests for the Fall. As you can see below, we have set up another new seminar in San Marcos in September and are saving the dates for a contract seminar sponsored by the Southern California Fire Sprinkler Advisory Board in Downey for December. The seminar in San Marcos this past May was well-attended and the course evaluations were very positive. For more information on NFSA classes and seminars, contact seminars@nfsa.org or Regional Manager Bruce Lecair at lecair@nfsa.org or 951.805.8992.

Next up

Two Day Plan Review, San Marcos, CA Dates: Sept 5-6 Sprinkler Protection for Storage Occupancies, Downey, CA. Dates: December 4-5, 2018

> Bruce Lecair NFSA's Associate Director of Regional Operations / West email: lecair@nfsa.org 25417 West Hyacinth Street, Corona, CA 92883 Phone: 951.277.3517, Fax: 951.277.3199



Northwest Region

SUZANNE MAYR **Regional Manager**

ALASKA, IDAHO, MONTANA, OREGON, WASHINGTON

Northwest Sprinkler Saves!

A surprising number of apartment fires were contained by sprinklers over the summer in the Northwest. In Yakima, Washington, an improperly discarded cigarette started a fire on a deck, but the interior fire sprinklers prevented the fire from spreading into the apartment. In Juneau, Alaska, an unattended cooking fire sparked a blaze in a high-rise apartment kitchen. A sprinkler head near the apartment door kept the fire from spreading outside of the apartment. In Redmond, Oregon, sprinklers received credit for containing a grease fire in a four-plex. In Central Kitsap, Washington, an electrical fire was extinguished by the time fire crews arrived at the apartment building. Other sprinkler saves this summer ranged from a church to a casino.

> Suzanne Mayr NFSA's Regional Manager / Northwest email: mayr@nfsa.org P.O. Box 7328, Tacoma, WA 98417 phone: 253.208.8467

LETTERS

TRISERVE FIRE PROTECTION, INC. GIVING BACK

Owning and operating a small business is not for the faint of heart. There are a lot of hats to wear and you seem to run out of hours before the work is done. It would be easy to get caught up in the day-to-day grind and forget about the big picture. What we do is important. I've had the opportunity during my career to work with some outstanding companies and most importantly, people. I have had the opportunity to see the amount of time and money that these companies and people devote to the betterment of our industry. When given the opportunity, I jumped at the chance to join the Board of Directors for the Florida Fire Sprinkler Association (FFSA).

I have been a Board Member of FFSA for about eight years now. I am currently the President of this great association. Even though it is challenging to keep up with the business while serving, I can tell you that it is worth every dollar and minute spent serving with this great group of individuals.

I challenge anyone looking for an opportunity to make a difference in our industry, to seek out the leadership of your state or local fire sprinkler association and offer to lend a hand. I can assure you that no matter what state or city you are in, the NFSA chapter closest to you can use your help for some upcoming event. You may not become a board member initially, but making your desires known will get you there eventually. Any way that you can help is always welcomed. I can assure you that you will receive back much more that you put in. We all need to do what we can to help build the future of our great and noble industry. Fire sprinklers save lives and property, and we should be proud to promote that every day.



Joey Hatfield Triserve Fire Protection Fort Myers, Florida

DEAR FELLOW MEMBERS OF THE FIRE SPRINKLER INDUSTRY

In March of 2017, Wiginton Fire Systems, of Orlando, Florida, officially turned 50 years-old. With nearly 500 employees, in 15 locations, Wiginton does business in over 25 states, from Florida to California.

Since inception, the company has been closely held, family-owned and operated. Now, we are in 2018 with a much larger family owning us. That's because in 2007, the Wiginton family sold 100% of the company stock to an employee stock ownership plan (ESOP). The family is now the "trustee" of the plan that allows everyone in the company to participate in the total value and growth of the company. All eligible employees own a piece of the rock. There was NO 3rd party financing, as the Wiginton Family financed 100% of the transaction (internally) on the good faith, skill and work ethic of the larger 500-member family.

Back Story: The transaction was official in 2008, and if you were breathing and working at the time, you felt what happened to America's economy during the Great Recession. With the company in its second year as an ESOP, it didn't feel like such a good idea; the stock value plummeted to pennies due to the financial structure of the ESOP within a dying economy.

The timing was a double-edged sword. It was the worst time to do it financially, but the best time to do it morally. The entire team worked harder than ever through those next five years to overcome the recession and keep the company intact. After some serious belt tightening, the company started growing again by 2011, with ongoing growth, financial strength and ownership mentality, ever since. The last few years have been outstanding, and we are projecting record financial thresholds for 2018.

I hope the economy finds you well now, as we couldn't be happier with the ESOP decision (succession) and Wiginton owners agree. The ESOP puts its private stock price where its mouth is. Recessions aren't fun. Yet, just like Big Joe Wiginton always said, "Nothing makes a company stronger than a solid recession". So True.



Enjoy the good times, Alan D. Wiginton, Wiginton Fire Systems

SON - Blazemaster continued from page 69

contractors to get feedback on its products and keep abreast of industry issues. The standard size for basement joists was increasing from a foot to 14 and even 16 inches, the contractors said. That was a problem for those who wanted to be able to use the CPVC product in basements with the taller joists but were forced to switch to steel instead.

Preliminary research showed that the pipe and fittings could meet the 16-inch standard and that the effort to earn the new listing would make sense economically, Hampton said. Then it was a matter of designing and initiating the testing process.

BlazeMaster Fire Protection Systems performed two extensive rounds of testing, trying different sprinkler spacings and patterns, varying ceiling heights, joist sizes and blocking distances. The challenge with taller joists is that the sprinklers on the bottom of the joists are farther away from the ceiling where the volume of hot air builds first; engineers had to prove that the sprinkler system would still activate in time to control the fire without it suffering any damage that could interfere with its ability to perform.

A typical test involved positioning a sprinkler on a joist above a heptane fire; allowing the fire to burn for 10 minutes to activate the sprinkler; allowing the sprinkler to knock down the fire; replacing the sprinkler; re-pressurizing the system to 175 psi for 15 minutes while checking for leaks. Once BlazeMaster Pipe & Fittings was satisfied with its results, it went to UL to perform the tests that would determine if it could achieve the new certification.

UL witnessed the conduct of eight tests in four days last year and verified the results against its requirements. BlazeMaster Fire Protection Systems earned the certification. The new certification will make it easier for contractors to install BlazeMaster pipe.•



National Fire Sprinkler Magazine

The Flagship Publication of The National Fire Sprinkler Association

NFSM Article Submission Guidelines

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

Query

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

Feature Articles

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

Writing Guidelines

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

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

Illustrations

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

Copyrights

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

Payment

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

NFSM EDITOR:

Joanne Genadio genadio@nfsa.org 443.863.4399

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