

Journal of the National Fire Sprinkler Association

RESIDENTIAL SPRINKLERS

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- Residential Fire Sprinklers in California
 - -A Five Year Update, pg. 33
- The History and Future of the NFPA 13R Standard, pg. 15
- Discussions and Reflections on the NFPA 13R Summit, pg. 19

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March - April 2016 • no. 195

ON THE COVER

Thank you to Wayne Automatic Fire Sprinklers, Mid-Atlantic Regional Manager Ray Lonabaugh and Associate Director of Field Operations Bruce Lecair for the photos of residential fire sprinkler installations that grace the cover of this issue of SQ.

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JOANNE GENADIO

DESIGNER

JOHN L. SULLIVAN/SULLIVANDesign

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March 3

Seismic Bracing for Fire Sprinkler Systems WATERBURY, CONNECTICUT

March 8-10

Inspection & Testing for the Fire Sprinkler Industry WESTBURY, NEW YORK

March 23-24

Sprinkler System Plan Review PLAINFIELD, ILLINOIS

March 15

Pumps for Fire Protection WINDSOR LOCKS, CONNECTICUT

March 15

NFPA 13 Discharge Criteria Updates for the 2016 Edition ONLINE

March 30

Coordinating NFPA 25 & 72 Inspection, **Testing and Maintenance Requirements** SPRINGFIELD, MISSOURI

April 4-15

Two Week Layout Tech Training PATTERSON, NEW YORK

April 7-8

Sprinkler System Plan Review WEYMOUTH, MASSACHUSETTS

April 8

Understanding, Applying & Enforcing NFPA

CONCORD, NEW HAMPSHIRE

April 13

Rough & Final Inspections of Fire Sprinkler Systems MUNDELEIN, ILLINOIS

April 18-19

Sprinkler System Plan Review WALLINGFORD, CONNECTICUT

April 19

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April 19-20

Sprinkler System Plan Review COLORADO SPRINGS, COLORADO

April 21

Pumps for Fire Protection COLORADO SPRINGS, COLORADO

May 12

NFPA 13, 13R, 13D & 14 Update 2013 WEST SPRINGFIELD, MASSACHUSETTS

May 17

NFPA 13 Installation Criteria Updates for the 2016 Edition **ONLINE**

These seminars qualify for continuing education as required by NICET. Meet mandatory Continuing Education Requirements for

May 18-19

ITM: Navigating through the Liability Minefield WESTBURY, NEW YORK

May 24-25

Sprinkler System Plan Review EL SEGUNDO, CALIFORNIA

June 3

Introduction to Fire Sprinklers, Fire Pumps & Standpipes CONCORD, NEW HAMPSHIRE

June 7-9

Inspection & Testing for the Fire Sprinkler Industry ELMIRA, NEW YORK

June 21

NFPA 20 Updates & Highlights Online

August 1-12

Two Week Layout Tech Training ORLANDO, FLORIDA

October 3-14

Two Week Layout Tech Training FIFE, WASHINGTON



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New York	New York	Dominick G. Kasmauskas, NFSA 1436 Altamont Ave. Suite 147 Rotterdam, New York 12303 (518) 937-6589 FAX (518) 836-0210	1060 Central Avenue' Albany, New York 12205 (518) 459-2776 FAX (518) 459-0068		
Mid Atlantic	Delaware, Maryland, New Jersey, Pennsylvania, Virginia, Washington, D.C.	Raymond W. Lonabaugh, NFSA P.O. Box 126 Ridley Park, Pennsylvania 19078 (610) 521-4768 FAX (610) 521-2030	Kent Mezaros Quick Response Fire Protection 77 Pension Road, Suite 5 Manalapan, New Jersey 07726 (732) 786-9440 FAX (732) 786-9443		
Southeast	Alabama, Georgia, Mississippi North Carolina, South Carolina	Associate Director of Regional Operations - East Wayne Waggoner, NFSA PO Box 9 Andersonville, Tennessee 37705	Ken Brinkley Music City Fire Sprinkler 238 Molly Walton Drive Hendersonville, TN 37075		
Tennesee	Tennessee	(865) 755-2956 FAX (865) 381-0597	(615) 826-7450 FAX (615) 826-9680		
Florida	Florida, Puerto Rico	Lorrell Bush, NFSA 2025 Droylsden Lane, Eustis, Florida 32726 (352) 589-8402 FAX (561) 327-6366 Cell: (954) 275-8487	Alan Wiginton Wiginton Fire Systems 699 Aero Lane Sanford, FL 32771 (407) 585-3205 FAX (407)585-3282		
Great Lakes	Indiana, Michigan, Ohio, West Virginia, Kentucky	ТВА	Richard A. Ackley Dalmatian Fire, Inc. P.O. Box 78068 Indianapolis, Indiana 46278 (317) 299-3889 FAX (317) 299-4078		
North Central	Minnesota	Tom Brace, NFSA 1433 Idaho Ave West St. Paul, Minnesota 55108 (651) 644-7800 FAX (651) 603-8827	Gregg Huennekens United States Alliance Fire Protection 28427 North Ballard – Unit H Lake Forest, Illinois 60045		
	Wisconsin	Marty King 3317 South 113th Street West Allis, WI 53227 (414) 531-9542 king@nfsa.org	(847) 736-3496 FAX (847) 816-0098		
Illinois	Illinois	Robert Tinucci, NFSA 6401 Richmond Ave Willowbrook, Illinois 60527 (630) 655-1875 FAX: (630) 655-1875			
Central	lowa, Kansas, Missouri	ТВА	Dennis C. Coleman Engineered Fire Protection, Inc. 1615 South Kings Highway St. Louis, Missouri 63110 (314) 771-0033 FAX (314) 664-1619		
South Central	Arkansas, Louisiana, Oklahoma, Texas	Cynthia Giedraitis NFSA 2013 Oakwood Trail College Station, Texas 77845 (979) 324-8934	John Kauffman III Kauffman Company 13225 FM529 – Suite A Houston, Texas 77041 (713) 937-4144 FAX (713) 937-4149		
Great Plains	Colorado, Nebraska, North Dakota, South Dakota, Utah, Wyoming	Eric Gleason, NFSA P.O. Box 62157 Littleton, Colorado 80162 (720) 470-4894	Harry Nothhaft II L.Nothhaft & Son 2520 West 62nd Court Denver, Colorado 80221 (303) 433-3329 FAX (303) 433-2432		
Southwest	Arizona, Nevada, New Mexico,	Associate Director of Regional Operations - West Bruce Lecair, NFSA	Aaron Bennett RCI Systems, Inc. 1220 West Geneva Drive Tempe, Arizona 85282 (480) 894-8711 FAX (480) 894-8740		
West	California, Hawaii	25417 West Hyacinth Street Corona, California 92883 (951) 277-3517 FAX (951) 277-3199	Jack Thacker Allan Automatic Sprinkler Corporation 3233 Enterprise St. Brea, California 92821 (714) 993-9500 FAX (714) 993-5708		
Northwest	Alaska, Idaho, Montana, Oregon, Washington	Suzanne Mayr, NFSA P.O. Box 7328 Tacoma, WA 98417 (253) 208-8467	James Boulanger Patriot Fire Protection, Inc. 2707 70th Avenue East Tacoma, Washington 98424 (253) 926-2290 FAX (253) 922-6150		
		Vice President Field Operations James Lake 12 Clearwater Drive Plymouth, MA 02360 (617) 372-6214 lake@nfsa.org	Director at Large Clark Gey Wayne Automatic Fire Sprinkler 222 Capitol Court Ocoee, Florida 34761 (407) 877-5564		

from the PRESIDENT'S DESK

Growth & Advancement



Shane Ray

s I approach the end of my first year as President of this great Association in this evolving industry, I reflect on not just the changes, but the growth and advancement. I look back on my 30 years of personal growth and advancement in the fire protection field and I am grateful for all the people and experiences that have helped me along the way. I look introspectively, because I hope my growth and development, like yours, has made the organization, association, or company better.

The NFSA and fire sprinkler industry face many challenges ahead. We have worked through and continue to transition. We navigate through the transition as a strong association that is working diligently to be ahead of the issues, not react to them. A strong focus on personal, organizational and overall professional and industry growth and advancement will allow us to fulfill our mission of the "widespread acceptance of the fire sprinkler concept."

I hope that you are realizing the value of your NFSA membership and total contributions you make both financially with your dues and personally with your time serving on the Board, Councils, Committees, Chapters and Coalitions. The impact and outreach of our Association is huge - from our time with congressional members and staff, to a meeting with the Secretary of HUD, to the city council chambers of Estero, Florida, to the state regulation committee, to Chapters in California, to the Supreme Court in Minnesota, to the state agencies and General Assembly in New Jersey, your Association is involved and informed. Yes, with growth and personal development comes improvement in advancing our mission.

I hope you join us at our Annual Seminar and Business & Leadership Conference in Dana Point, California. We have some great speakers and informative programs, but most of all, it is a great venue and opportunity to socialize and share with leading experts and fellow fire sprinkler industry professionals.

There is a lot in store in the future. Please reach out to your friends, neighbors, competitors and colleagues and get them involved. The best membership recruitment tool is sharing the satisfaction and value you derived from being an NFSA member with your peers. We look forward to seeing you soon and we are excited about the opportunities ahead for all.

Shane Ray, President



In the Nov/Dec 2015 issue of SQ, we listed our members who have been part of NFSA for 25 years or more. The computer age being what it is, one member did not pull from our database when we compiled our list. That being said, allow us to take the time to honor one of our longest-tenured members, Livingston Fire Protection.

Thank you once again to all of our long-standing members. You are the driving force behind the strongest and most vital Fire Sprinkler Association in the U.S.A.!



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v.**ntsa**.org

Is there an App for that?



Larry Thau

s we go about the business of expanding the use of fire sprinklers, there are a number of tools in our toolbox. Knowledge of life safety, code development and enforcement, identifying hardware improvements, legislative awareness and economics are among our strengths. There's one big one though, that's growing in significance which we are just beginning to recognize. It's the capture, development, analysis, organization and accessibility of data for our members. This tool leverages all the others, making us far more effective at the point of sale, at the time of negotiation, making strategic decisions for our businesses or when it comes time to "close the deal."

Sure, we can say we already have this type of information available, but the fact is this information frequently begins life as traditional print documents and PDF conversions fall short on accessibility. We're not alone. This is the incremental way many businesses have accommodated the digital age. Content which starts as digital is far faster when locating, extracting and analyzing data. As our entire society is becoming more at ease with leveraging the various sources of information on the net and becomes facile with its capabilities, this interface is mission critical for industry associations like ours. Our staff has made some significant progress in this direction recently, but there are some issues of strategy, resources and structure that they can't do alone.

It's also easy to say that our partner organization, NFPA, already provides a lot of the pertinent information. That may be true, but fire extinguishers, flameless cigarettes and a library of the best safety standards in the world aren't exactly what we need to promote our systems and their benefit to the target market communities.

We often cite parallels in other safety related industries like seatbelts, GFI circuits and guarded tools and wonder how they became established requirements. GFI circuits in particular are very close to home as electrical standards are also part of NFPA's services. The answer is clear, the right data was available in the right form for the regulators, insurance interests and public to see the benefits were worth the investments. When we look to our adversaries, we often see data used to reinforce positions about the effectiveness of smoke detectors or fire treated lumber as an obstacle to sprinklers. What do we have in an easily accessible form to counterbalance their position?

To be clear, we need to be careful to understand the issue isn't whether or not we have the information but "Is it accessible in a convenient, organized and customizable form to fit our current and future member's business purposes?"

Generationally, it's an even greater concern and here, efficient smartphone level access has become the litmus test. If an organization can't provide the correct digital information in your palm, your audience will slowly be looking elsewhere. Let's face it... those of us who may have attended Woodstock probably don't place this as high a priority.

Of our various committees and councils which address key constituencies and functions, the closest one which touches this need on a regular basis is the Future Leadership committee. In them, we've already put a foundation in place. Curiously, but not surprisingly, this area of digital agility and data development was a topic they arrived at naturally, in conjunction with our staff members who have a list of their own thoughts. Our full commitment and focus may be the only element remaining. I think maybe the time has arrived for us to include this as a part of our routine board level topics and objectives.

Let's help the NFSA to move on from Woodstock to iTunes[®].

Respectfully,

Larry Thau, Chairman

CONTRACTOR'S CUE

Three Habits of Effective Project Leadership & Six Keys to Successful Project-Based Work

by TY KIISEL

Three Habits of Effective Project Leadership

For any organization doing project based work, the need for leadership and collaboration is critical. Unfortunately, for many organizations, developing leadership is a challenge, there are never enough leaders in an organization and getting people to collaborate is often a challenge.

Here are three leadership principles that can help you effectively manage project teams in today's complicated business climate:

- Lead Yourself First. My colleagues and I used to call this walking the talk. If you don't practice what you preach, how can you lead others.
- Encourage Ownership. The more people feel of sense of ownership, the more responsibility team members will feel for the outcome. Identifying what a positive or negative outcome means to the team will encourage a sense of ownership.
- Follow-Up. I don't think it's any secret, but leaders get the behaviors they reinforce.

It really doesn't matter what type of project based work you do or your particular work management methodology, project managers who spend time learning and implementing leadership skills are more successful than those that don't. As more and more organization turn to project and portfolio management best practices to make their organizations more efficient, the need for skilled project managers, those who know how to lead people as well as manage process, will continue to grow.

What are you doing to improve your leadership skills?

Six Keys to Successful Project-Based Work

"Wax on, right hand. Wax off, left hand. Wax on, wax off. Breath in through nose, out the mouth. Wax on, wax off. Don't forget to breathe, very important."

In the 1984 movie The Karate Kid, Mr. Miagi, an apartment complex maintenance man, becomes an unlikely karate teacher for Daniel Laruso, a high-school kid in trouble with a bunch of local karatebullies. With an unorthodox teaching style, Daniel-san's first karate lessons includes waxing Mr. Miagi's cars-all four of them.

So what does this have to do with project based work?

Without giving a play-by-play of the whole story, Mr. Miagi taught Daniel the basic techniques and skills that would allow him to defend himself. I've observed that there are some basic project management fundamentals that are common to any successful project and portfolio management methodology.

Successful project managers focus on what matters most. Here are six suggestions:

- Make sure the project has a strong sponsor. Every project needs a sponsor who will evangelize the value of the initiative throughout the life of the project.
- Make sure the project is adequately funded. The temptation is to take whatever funding is offered, but without adequate funding, it's usually the project manager who ends up in hot water when the project fails for lack of financial resources.
- Pick the right team. Make sure the team includes all the skills that will be needed for success. Just because someone is available, doesn't always mean they are the best to work on your project.

- Plan. Planning is more than just preparing to deliver the final product. It should involve a continual process of evaluation and adjustment.
- 5. Know the end before you begin. Make sure you know what the outcome of a successful project is before you start. What does "done" mean? Financial experts call this an "exit plan."
- Prepare for change. The very nature of projects create change. Whether it's a new product or an improvement in process or technology. Makes sure to prepare for the change.

About The Author

Ty Kiisel makes the concepts and best practices of web-based project management accessible to both the expert and novice project professional. Ty is also host of popular podcast TalkingWork.com.



Members, send us your photos of installations, designs, work out in the field, any great action shots you can think of. We'll keep them on file for use as possible covers for **SQ**. If your photo is selected for use, you will be notified and given proper credit.

Send hi-rez photos to Joanne Genadio at **genadio@nfsa.org**



Fire Sprinkler Anchoring Solutions

	Bang-It™	Wood- Knocker™	Power- Stud+® SD1	Power- Stud+® SD2	Snake+™	Vertigo™+	Steel Vertigo™	Wood Vertigo™	Smart DI+ ®	Hanger Mate+
	File No. EX1289 Also UL listed and recognized for use in air handling spaces	File No. EX1289 Also UL listed and recognized for use in air handling spaces	File No. EX1289	File No. EX1289			File No. EX1289	File No. EX1289	File No. EX1289 (N)	
FM	File No. J.I. 3015153	File No. J.I. 3015153	File No. 3033795, 3/8" and 1/2" dia. pipe hanger components for automatic sprinkler systems	File No. 3033795, 3/8" and 1/2" dia. pipe hanger components for automatic sprinkler systems	File No. 3038104 Pipe hanger components for automatic sprinkler systems	File No. 3038104	File No. 3015153	File No. 3015153	File No. 3042006	* File No. Pending
ES	ESR-3657 for Steel Deck in Cracked & Uncracked Concrete	ESR-3657 for Steel Deck in Cracked & Uncracked Concrete	ESR-2818 Cracked & Uncracked Concrete	ESR-2502 Cracked & Uncracked Concrete	ESR-2272 Cracked & Uncracked Concrete	ESR-2526 Cracked & Uncracked Concrete				ESR* Cracked & Uncracked Concrete
SANC RECO	/	/	•	/	/	/				*
			() Immunonumun ()			是 在				Coming Soon! Improved Thread Design. Contact Powers for more details.
	Bang-It™	Wood- Knocker™	Power- Stud+® SD1	Power- Stud+® SD2	Snake+™	Vertigo™+	Steel Vertigo™	Wood Vertigo™	Smart DI+®	Hanger Mate+
	Cast-in-Place Insert for Concrete Over Steel Deck	Cast-in-Place Insert for Wood Forms	Wedge Expasion Anchor for Concrete	Wedge Expasion Anchor for Concrete	Internally Threaded Self Tapping Anchor for Threaded Rod	Rod Hanging System for Concrete	Rod Hanging System for Steel Base Material	Rod Hanging System for Wood Base Material	Drop-In	Rod Hanging System for Concrete 1/4" Thread Profile vs. 3/8"

* Pending







TECHNICAL TUESDAY 2016 ONLINE

Another edition of the same standard published. There is always some excitement for what situations have now been addressed and what problems have the committees solved. However, it also means learning new section references and finding the nuances of revisions made to the documents. 2016 editions of NFPA 13, NFPA 13R, NFPA 13D, and NFPA 20 are now available to the public. This series will cover the major changes made to the standards during this revision cycle. A basic working knowledge of sprinkler installation standards is assumed.



March 15, 2016

NFPA 13 Discharge Criteria Updates for the 2016 Edition

LOUIS GUERRAZZI, EIT

LEVEL: INTERMEDIATE

Many changes for the discharge criteria for fire sprinkler systems were made to the 2016 Edition of NFPA 13 recently released. This seminar will focus on the major changes including the updates to design criteria for the protection of exposed expanded Group A plastics, guidance on the protection of columns within or near rack structures, handling idle wood pallets and more.

April 19, 2016

NFPA 13, NFPA 13R, and NFPA 13D Residential Updates for the 2016 Edition

ROBERT UPSON, MS FPE

LEVEL: INTERMEDIATE

The new 2016 residential standards, NFPA 13R and NFPA 13D, introduce some clarifications of existing requirements as well as some notable new ones such as bringing language regarding architectural features in NFPA 13D from the Annex to the body of the standard. Other key changes include language dealing with the replacement of residential sprinklers listed for design densities less than 0.05 gpm/ft2; reinstalling dry sprinklers; sprinklers outside of dwelling units; sprinkler-protected glass; and drains for trapped sections of pipe. This presentation will review these and other highlights of the residential updates from 2013 to 2016 editions.

VIEW DEMO, SYSTEM REQUIREMENTS and REGISTER at: WWW.NFSA.ORG

May 17, 2016

NFPA 13 Installation Criteria Updates for the 2016 Edition

ROLAND ASP, CET

LEVEL: INTERMEDIATE

The installation chapters of NFPA 13 include chapters 1, 2, 3, 4, 6, 7, 8, 25, 26 and 27. Changes for the 2016 edition to these chapters will significantly affect the layout and installation of sprinkler systems and is a "must-know" for layout technicians, installers, AHJs and others in the industry. This seminar will focus on the major changes including new criteria for "Cloud Ceilings", new requirements for air venting of wet systems to prevent corrosion, changes in obstruction rules, new requirements for sprinkler protected glazing, main drain sizing and more.

June 21, 2016

NFPA 20 Updates and Highlights

LOUIS GUERRAZZI, EIT

LEVEL: INTERMEDIATE

The 2016 Edition of NFPA 20 is now available with many updates to the rules for the design and installation of fire pumps. This seminar will focus on the major changes including multistage multiport pump criteria, requirements for transfer switches, and there will be discussions on automatic testing, remote monitoring and more. This review will assist AHJs and installers alike in updating to the current material.

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SQ • march – april 20

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New Positions in Field Operations

By James D. Lake

he Field Operations Department serves NFSA by coordinating a nationwide network of field service personnel. This network provides membership support, educational programs and seminars on a regional and national basis. Our initiatives are designed to promote and enhance the fire sprinkler market and to serve the goals and objectives of the Association.

2016 will be a year of expansion of NFSA staff with an eye toward the purpose of increasing services to our members. Visiting the NFSA Team Jobs page http://www.nfsa.org/teamjobs, you will see the number and variety of positions that have been created as we build a team that can serve our membership and save lives and property as part of the process.

As you peruse the job titles you will most likely come across some that you do not recognize within the Field Operations Department. These include State Coordinator, Local Coordinator and Field Service Coordinator.

We have created these positions to maximize the efficiency of delivery of services into targeted areas. State Coordinators are being sought in Maryland, Missouri and Arizona. The functions of State Coordinators will be as follows:

- · provide membership services
- identify issues that are important to the members within those states
- work to find solutions
- be aware of legislative and code adoption processes that impact the state
- promote training
- provide support to member activities such as the NFSA Chapters or regional meetings located in those states

The Local Coordinators, currently being sought in Philadelphia and Newark, will provide the same services but targeted in those specific cities.

Now you may be asking yourself, "Don't our extremely talented Regional Managers already provide that service?" And the answer would be yes. That will continue. This new model for Field Operations staff increases our ability to serve our members needs in these specific locations. This model will also help us when exploring areas of potential growth for NFSA.

On the other hand, the Field Service Coordinator position was conceived in an effort to provide service to our members on a different scale.

Recognizing that the Training and Public Fire Protection Departments have national scopes but limited staffs, the position of Field Service Coordinator was developed to have someone with skills that transcend just one given region. Skills such as training, ITM experience, national codes experience or perhaps retrofit. This position is a hybrid of a national position and a regional one with a skillset that can meet the needs of Field Operations service as well as those of Training and Public Fire Protection in a specific time of need.

The position description of the Field Service Coordinator is based on a skill-set that is desired of this candidate with an eye toward cross-departmental operations. Primary oversight and reporting will come through Field Operations. However, because this position will also work closely on national initiatives that are overseen by Public Fire Protection or Training, the Coordinator will be expected to travel beyond the boundaries of the Great Lakes Region when necessary for training or work within an initiative of the Public Fire Protection Department such as ITM, retrofit or codes work.

Collaborative management is a concept that is not new to NFSA staff. For

example, the Training Department often reaches out to the Engineering or Public Fire Protection Departments to fulfill the development or instructor staffing needs for seminars. Oversight would continue within these departments for daily activities, but the coordinator would answer to the head of the Training Department within the project they are working on. Similarly, the Engineering Department and the Public Fire Protection Department routinely have projects or initiatives that require Field Operations staff participation. Staff is managed by Engineering within those projects.

This collaboration has been ongoing on an informal basis and has developed as the individual within Field Operations has grown in experience. For instance, when I was initially hired as a Regional Manager in 1988, it was for servicing the membership needs within New York and New England. It was only after gaining experience within the position that I also took on the tasks of seminar instruction or national initiatives. The difference here is that in the Field Service Coordinator position we are looking for cross-departmental skills as part of the search process, not as part of the individual's professional development within NFSA.

2016 will be an exciting year of growth for NFSA and the services we provide you. We welcome your input and look forward to serving you with all of the energy and focus you expect from TEAM NFSA.



Vice President of Field Operations

James D. Lake





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TECHNICALLY SPEAKING

The History and Future of the NFPA 13R Standard

By Russell P. Fleming, P.E.

n December of 2015, the National Fire Protection Association called together a "Life Safety Sprinkler Systems Challenge" workshop, the main reason for which was to discuss recent experience with the NFPA 13R sprinkler standard and to recommend possible changes. Articles dealing with the outcome of that workshop appear elsewhere in this issue of SQ. This article deals with the rationale behind NFPA 13R in the first place and the decisions leading up to the first published edition of the standard in 1989.

To begin with, there would be no NFPA 13R without the development of the NFPA 13D standard for one and two-family dwellings and manufactured homes, originally published in a 1975 edition, but drastically modified in a 1980 edition with the development of the residential sprinkler. NFPA 13D had broken the barrier of requiring complete property protection from an automatic fire sprinkler system, instead adopting a philosophy of economical life safety oriented protection. Sprinklers could be omitted from building areas found to have a low incidence as a source of fatal fires. Since the NFPA estimates that the sprinkler coverage of an NFPA 13D system extends to about 85 percent of the home, it was envisioned that this approach would reduce the amount of sprinklers, piping and other materials, as well as associated labor costs, making the systems more affordable to the homeowner. A two-sprinkler water supply for a minimum duration of 10 minutes was intended to allow safe conditions for building evacuation.

Although the NFPA 13D standard was mandated within a few years for use in certain progressive jurisdictions such as Cobb County, Georgia, Greenburgh, New York and Scottsdale, Arizona, there was no statewide or other widespread adoption. However, the affordable aspect of the life safety sprinkler system caught the attention of a number of fire authorities wanting to apply the concept to multi-family housing.

In 1987 the State of Florida enacted the Florida Affordable Fire Sprinkler Law. The law essentially created a new standard, taking concepts from both NFPA 13 and NFPA 13D and melding them together to allow light hazard occupancies up to three stories in height to be protected with this hybrid system. While well-intentioned, the effort left some gaps and gray areas in terms of how the systems were to be designed and installed. A similar "State of Maine Standard for the Design and Installation of Life-Safety Sprinkler Systems" had been first issued as a design guide by the state fire marshal in 1984, and was legally approved as a standard by the Attorney General in 1988.

The NFPA Committee on Automatic Sprinklers recognized its responsibility to provide leadership in this area, and formed a task group to draft a document that would fill the need expressed by these individual state efforts. I had the opportunity to serve on that task group, whose work effort led to the issu-

ance of the first (1989) edition of NFPA 13R - Standard for the Installation of Sprinklers in Residential Occupancies Up to Four Stories in Height following its endorsement at the NFPA Fall meeting in November of 1988.

The task group's main responsibilities were to propose the intended scope and purpose of the new standard, and to recommend an appropriate level of compromise between NFPA 13D and NFPA 13 for the multi-family residential occupancies. During the exercise of drafting the document, the task group addressed a number of questions:

U: What are the similarities to NFPA 13D?

A: Like NFPA 13D, it is life safety oriented for the sake of installation economy, with sprinklers omitted from building areas in which a fatal fire is unlikely to originate. It also requires the use of listed residential sprinklers, specially developed with the ability to respond rapidly to a growing fire and to thereby make use of limited water discharge rates and with high wall-

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Russ Fleming is currently the Senior Advisor to the President of NFSA.

Russell P. Fleming, P.E.

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wetting capabilities important in small residential compartments with perimeter furnishings.

U: What are the differences from NFPA 13D?

A: NFPA 13R contains more conservatism appropriate to multi-family occupancies, including the use of a 4-sprinkler rather than 2-sprinkler design area, the requirement that pumps be listed, the provision of a fire department connection and slightly less generous allowances for omitting sprinklers, although 13R retains the significant savings associated with eliminating sprinklers from combustible concealed spaces. Requirements for plans, hydraulic calculations and system acceptance certificates parallel those of NFPA 13.

Q: Why the 4-story limit?

A: The task group recognized that the building codes at the time tended to require automatic standpipe systems in buildings exceeding four stories in height and limited the use of combustible construction in higher buildings. As such, the biggest benefits of using NFPA 13R, i.e. allowing omission of sprinklers from combustible concealed spaces and limiting the water demand, were not as important in larger buildings.

U: What is intended by a "story"?

A: The task group wisely avoided dealing with that issue, leaving it instead to the applicable building code. As a result, in some areas a habitable basement was considered part of the 4-story limitation, while in others it was not.

It is worth noting that, despite the intended scope limitation to four stories (with a maximum 60 feet also added in the 2013 edition), there are at least a couple of jurisdictions that have applied NFPA 13R to larger buildings. The City of Atlanta allowed the use of NFPA 13R for buildings up to six stories in height shortly after it was issued. In more recent years, the City of New York has done likewise, believing that the original logic that led to the 4-story limit, i.e. the requirement

for standpipe water supplies and the presence of combustible construction, translated better to a 6-story limit under the building code used in that city.

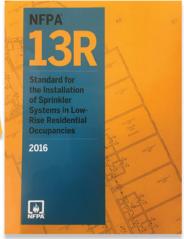
Preliminary reports on the NFPA's December 2015 workshop suggest that there will be no major changes to the scope of NFPA 13R, and that it is perceived as fulfilling its intended purpose as a life-safety oriented sprinkler standard. From the start the document has contained disclaimers suggesting that a higher level of property protection can be achieved by sprinklering all building areas in accordance with NFPA 13.

In fact, the biggest threat to the continued use of NFPA 13R may not come from a scope change, but from the removal of

The annex section went on to explain that buildings of mixed use should be protected in accordance with NFPA 13 unless the residential portion could be separated sufficiently to be considered a separate residential building in which NFPA 13R could be used.

In the 2016 edition of NFPA 13R, all of the above annex guidance is gone, removed on the basis that it was misleading and because, as worded in the committee statement accompanying the action, "building code regulations dealing with mixed occupancies, accessory occupancies, incidental uses, and pedestal buildings are complicated, and the use of NFPA 13R is limited by these regulations regardless of what is provided in the





language from the 2016 edition of the document dealing with how that scope is applied to a building. In the past, annex section A.1.1 clarified that:

"It is the intent of this standard that if NFPA 13R is appropriate for use, it be used throughout the entire building. It is recognized that an accessory or incidental occupancy to the operations of the residential occupancy might exist within that residential occupancy."

In this manner, spaces used as lobbies, meeting rooms, parking areas, tenant storage, laundries, etc. could be protected with the NFPA 13R system. Non-residential portions of the building were required to utilize NFPA 13 design discharge and design area criteria, but the basic design decisions of areas to be sprinklered remained under the purview of NFPA 13R.

NFPA 13R annex." The statement goes on to say that "non-separated mixed occupancy buildings are always required to follow the most stringent fire sprinkler standard," which is not really a change from the earlier guidance, but also warns that accessory spaces exceeding ten percent of the floor area on the floor on which they are located invokes the mixed occupancy rule, thereby preventing the use of NFPA 13R for the non-residential areas of the predominantly residential building.

While the committee statement optimistically suggested that deleting the annex material will reduce "confusion and conflicts between architects, engineers and contractors," one could argue that the end result will be just the opposite, and possibly a wholesale fear of applying NFPA 13R improperly. A great many low-

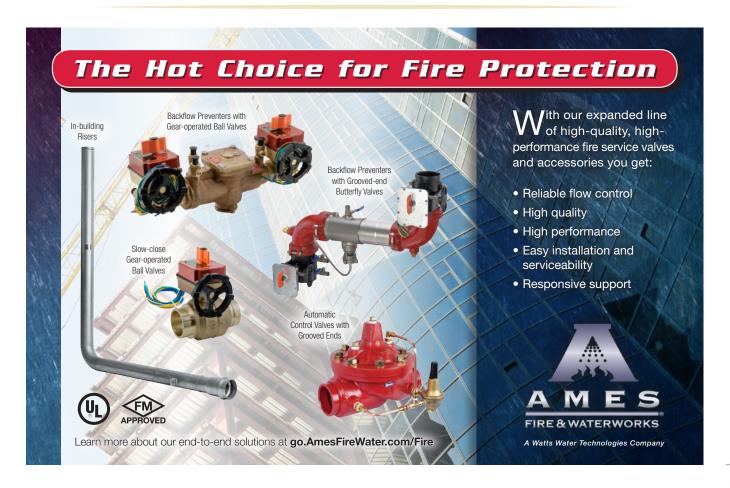
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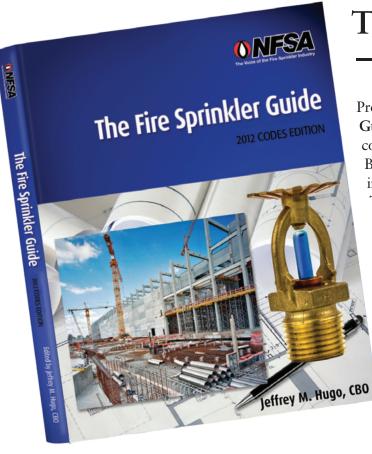
rise hotel occupancies, as well as many apartment buildings, will have accessory spaces on the ground floor that exceed the ten percent threshold but are not sufficiently separated to consider them separate buildings. Mandating the use of NFPA 13 will eliminate the present allowances to extend residential sprinklers and piping listed for light hazard applications into small ordinary hazard areas. It will require larger minimum water supplies, including hose stream allowance, and sprinklers in the above-ceiling space if wood truss construction is involved. If sprinkler protection is required in the above-ceiling space, does it need to extend to the above-ceiling spaces for residential areas on that floor? To the above-ceiling spaces on higher floors? What type of separations will be needed to make a clean break between the NFPA 13 portions and the NFPA 13R portions? The question of where to stop the NFPA 13 system can be envisioned to prevent the start of the NFPA 13R system.

Although the NFPA 13R guidance was considered by some to contain competing and conflicting guidance, the intent was clearly available for consideration by the Authority Having Jurisdiction and is now lost from the 2016 edition. The fire sprinkler industry is the poorer for that loss, since simplicity in the application of the NFPA sprinkler standards has always been to its benefit. A quick remedy may be appropriate.



www.nfsa.org





The Fire Sprinkler Guide –2012 Codes Edition

Produced by NFSA, this second edition of The Fire Sprinkler Guide defines those sections of the three model building codes, the Life Safety Code (NFPA 101) and International Building Code where fire sprinkler systems are required, including partial requirements and construction incentives. The guide includes comparison tables to clarify many of the code requirements. The guide is a valuable tool for architects and engineers, plan reviewers, fire and building inspectors, as well as sprinkler contractors, and serves well as a workbook for students at the NFSA's Design Advantage Seminar. This book is a "must have" for anybody that performs hydraulic calculations of fire sprinkler systems or performs plan review and approval of hydraulic calculations.

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Discussions and Reflections on the NFPA 13R Summit

By Jeff Hugo, CBO

gathered for a NFPA sponsored discussion on NFPA 13R in December of 2015. The event was well put together by NFPA and many key concerns were aired and discussed by the invited participants. While an official report from NFPA is forthcoming in Spring 2016, I would like to highlight some of the discussions and reflect on the two-day meeting and how NFPA 13R interacts with the building codes. In this issue of SQ, Russ Fleming provides an interesting history on NFPA 13R and Roland Asp will address the discussions at the meeting surrounding the NFPA 13R standard.

everal parties and interests

Assessments

It is important to note a pet peeve of mine. The fires that occur in buildings with a NFPA 13R system are often mischaracterized as "NFPA 13R fires." This is a misrepresentation of an NFPA 13R system and it implies something is amiss with the fire sprinkler system. It is critical to keep the scope of life-safety always in mind when discussing the recent attic fires in NFPA 13R buildings. Perhaps those who use the "NFPA 13R fires" term are economizing their vocabulary, but it is important in the industry to not fall into this word trap. NFPA 13R is the only thing in common that these buildings had and are attributed with an untold number of lives saved.

Discussions at the meeting started with a categorization of the attic fires.

Many of the attic fires can be attributed as originating in one of four categories below:

- Fires that start in the mulch adjacent to the first floor or on a balcony and ascend the siding into the unprotected attic.
- 2. Fires that start by hot-work or other construction activities.
- 3. Fires that start in the attic from utilities or unknown sources.
- 4. Fires that are started through lightning strikes.

In relation to #2 and #4 above, the group acknowledged that there are solutions available in the codes. Hot-work permits are required by the fire code, which require proper training, fire watch, awareness and follow-up by those using open flame, welding and torches. Little can be done with lightning strikes. Lightning protection installed per NFPA 780 is effective to prevent fires but not all buildings are required to have lightning protection. The model codes don't require specific protection whereas some state codes, like Florida, only require three occupancies to have lightning protection. Regardless, lightning fires are not a major cause of residential fires in attics of buildings with NFPA 13R systems.

Fires that start in the mulch or balcony and ascend up the siding and into the unprotected attic is a modern day fire problem. These fires are caused by either wildland fires, carelessly discarded smoking materials or barbeque grills. Wildland-

urban interface codes provide many solutions to these scenarios by limiting the amount of combustible materials present at the exterior wall. Mulch fires are much more common from smoking materials than anything else. The decreased use of cigarettes and the NFPA campaign on the safe-cigarette is credited for the reduction of these fires.

One of the concerns for these exterior wall fires by many participants is the use of energy codes and vinyl siding. Energy codes in the US in the past decade have increased the amount of R-value in exterior walls. To meet the energy codes, many builders use exterior foam sheathing that is highly combustible. Vinyl siding can contribute to the exterior flammability and while the vinyl siding is not subject to the energy codes, it is used frequently to cut development and maintenance costs.

Fires on balconies do occur and they occur regardless of regulations on fuel-fired appliances, such as barbeque grills. Lease contracts and property inspections can only do so much to stop the public from using these devices on a balcony. The fire code does permit grills and similar appli-

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NFSA's Manager of Codes

Jeff Hugo, CBO

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ances on the balcony where fire sprinklers are present. This requirement correlates to the requirement of the 2003 International Building Code (IBC) requirement for sprinklers on the balcony. Fire sprinklers have been successful on balcony fires where the fire sprinklers are present.

Fires that originate in unsprinklered attics are difficult to determine. Where the fire is not controlled by the local fire department the evidence of what caused the fire is usually gone upon investigation. One of the greatest measures to retard fire growth is draftstopping in the attic. There was a lot of discussion on increasing draftstopping measures in codes by increasing the durability and decreasing

of some participants of the summit. The maximum square footage of an R-2 of Type VA construction is 12,000 and with maximum open perimeter the building area increases to 21,000 square feet. Some of these attic fires are being reported beyond this maximum size. Why and how is this possible? Some participants stated that the attic sizes of many contiquous buildings joined at the fire wall are beyond the original intent. Regardless of the perception, building codes permit large contiguous buildings protected by NFPA 13R systems. Fire walls should be controlling and limiting fires to one building. Some attendees also expressed that some building areas are being increased as if protected by NFPA 13 systems, but, attendee knows of many circumstances where the Authority Having Jurisdiction was unaware how the codes correlated to the standards in regards to trade-offs and extent of protection. Architects can also suffer from the same lack of code training and have designed buildings according to the NFPA 13 tradeoffs but with an NFPA 13R system installed.

The public needs to understand where they live and make educated choices. Many of the products they furnish their apartments or condos with, along with the appliances and entertainment devices, come with extensive owner's manuals and instructions. However, the unit that contains all of their treasures and loved ones usually has little instructions







the attic area or volume of space. Some of these measures are currently being discussed in both ICC and NFPA code arenas.

It is interesting to note that many of the participants acknowledged the large scale fires that have occurred in the past several years in unsprinklered attics. However, the history of the development of the NFPA 13R standard, when discussed, revealed that these fires are not a surprise to the originators of the standard, but predicted as a result of removing the property protection requirements that are found in NFPA 13. Many of those in attendance commented that nothing prohibits using NFPA 13 in multifamily construction and using NFPA 13R is a business decision.

The size of the attic fires in some of these fires was beyond comprehension for whatever reason, an NFPA 13R system is installed with no attic protection.

Solutions

The summit had breakout sessions that explored several areas of concern. One of the biggest results of the meeting was public education of NFPA 13R systems. The need to educate the public, code officials and architects was agreed upon by many people. The public needs to know how fire sprinklers operate in real life and that the protection of property is not addressed by NFPA 13R systems installed in multi-family dwellings. Code officials, where staffing is at adequate levels and with appropriate training, understand the application of the codes and the differences between the three fire sprinkler standards, however; just about every on safety, use or protection. If the public knew the differences between NFPA 13 and NFPA 13R, maybe there would be a change in the market to demand a higher degree of protection. If they knew that the concealed spaces and the attic had no sprinklers and that there was a higher potential of zero property protection (you could lose all of your stuff), a fundamental decision could be made. Homeowners and renters could also be tipped off by the change in premiums of their renters insurance policy.

There are well-trained, well-staffed and well-funded code official departments throughout the U.S. There are some departments that could be labeled as inbetween and some that barely function. Multi-family housing is built within all three scenarios and areas. No one at the meeting suggested that any of the three

are better than the other, but the differences are obvious. It is not to anyone's benefit to have a poorly equipped and under-trained code official. While there are many aspects to the code official's job, there needs to be a better method in place to provide uniform enforcement. The U.S. has uniform codes. What is lacking is that the knowledge of these codes by the local units of government. They are still highly politicized and dependent on left over tax dollars or permits to provide code books and training. The community sleeps in buildings that are inspected and protected by usually the most underfunded departments within the community. The differences and the requirements of NFPA 13R and NFPA 13 should be known by every code official. NFPA 13 has been around since 1896 and NFPA 13R since 1987. There is no reason why every code official does not have at least an elementary knowledge of fire sprinkler systems.

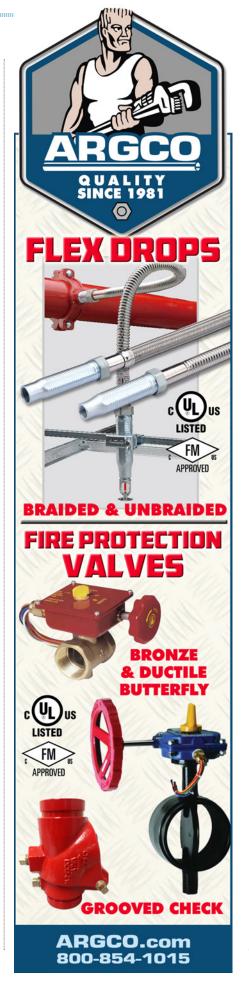
The designer or architect of the project needs a better awareness of the project. Some architects are ignorant of building codes, while others are highly knowledgeable of the nuances of the codes. One of the subjects I shared at the meeting was my experience lecturing at architectural schools around the U.S. I learned that architectural students have a significant lack of codes training while pursuing their degree. Regardless of their education, the codes are laws they need to know and follow. There are times when a residential building is constructed with all of the tradeoffs of NFPA 13 but during the bidding process the value of an NFPA 13R system is desired and installed. When this occurs, there are many changes to the building that have to happen, but for whatever reason, they are forgotten or overlooked. There are architectural firms that are highly specialized in multifamily construction and create very large projects or communities on pedestal construction. When these large projects are constructed and the residential buildings are connected to many other residential buildings the fire wall details and access to the attics are critically important. These details, or lack thereof, are evident in some of these large loss fires.

Please don't get the impression that the workshop and breakout group process assessed blame. There are several areas of improvement to work on and if the meeting did anything, it gave each of us a time to recollect how best to improve our products, missions, and enforcement.

Conclusion

Controlling fire is the primary function of a fire sprinkler system. Perhaps the more interesting development at the summit was how uninterested the participants were for automatically requiring attic sprinklers in the attic. This not to say anything negative about sprinklers in the attic, but there was a strong desire to keep the scope of the standard as originally intended, strictly life safety. Moreover, many participants stated the solution(s) for these residential buildings with NFPA 13R systems should be in the building codes. In fact, the building codes have had attic solutions for R-4 or residential board and care for a few editions. Attics that have no occupancy or storage can have fire sprinklers, but they can also limit fire spread with non-combustible or fire retardant treated wood (FRTW) attic construction. Some attics with fuel-fired appliances can be protected usually with a single fire sprinkler. Attics that are occupied or used for storage would require fire sprinkler systems throughout. The participants of this summit felt that these changes for attics were sufficient to limit or control fire and provide early warning to the occupants.

It must be understood that NFPA 13R has limitations and was created to be a different document with little-to-no property protection as compared to NFPA 13. When NFPA 13R originated, the goal was life-safety. Reducing non-sprinklered residential fire deaths was the major concern. For almost 30 years, the multi-family market has used NFPA 13R with very few regrets and a significant reduction in residential deaths has been achieved. Perhaps, now it is time for the codes to address options to meet the needs of the multi-family market and provide their customers and the public with a product that protects their material goods and reduces impact on the environment.











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"We are reaching out directly to our chapters and their leaders, as this will be a great opportunity for sharing and learning with leaders within our industry," adds NFSA President Shane Ray. "We encourage our members to bring various levels of leadership within their organization, as we have sessions and events for everyone!"

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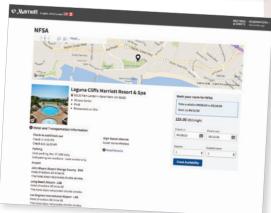
We are also excited about the 1st Annual Common Voices Golf Classic, which will be held on Thursday, May 5, 2016. We hope you'll join us for this event, with proceeds from the tournament going to Common Voices. We are proud to support our advocates as they work tirelessly across the nation to put a personal voice to the tragedies of fire. Working together, we are gaining momentum and we hope you'll join us and show your support!

There are also sponsorship opportunities available for the 2016 Annual Seminar and Business & Leadership Conference. Please go to the event page on the NFSA website for more information.

We look forward to seeing you in Dana Point, California! If you have any guestions, please reach out. We're here to help!

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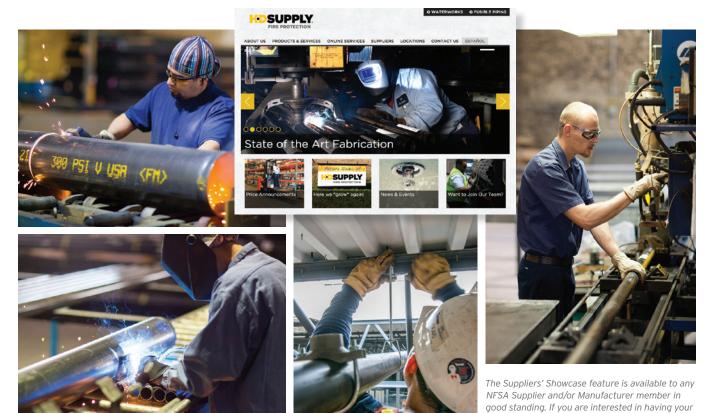
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NOTES FROM THE FIRE SCENE

A Letter from Sher Grogg

INTRO FROM VICKIE PRITCHETT, DIRECTOR
OF OUTREACH & GOVERNMENT RELATIONS
& FACILITATOR OF COMMON VOICES.

I'll never forget my first phone call from Sher Grogg. The call came to me in late July and there was a strong connection from the start. I listened in awe as she shared the tragedy that had happened to her family and her words, "I am ready to do something, to share our story so that others will not repeat it and everyone says you can help." Humbled beyond words, I was determined to help.

That was the beginning of Sher's story with Common Voices and we are happy to share that we are well on our way to welcoming Sher into our group of advocates. Her PSA will join the library of other advocates and will be available soon. We are honored to add her to our family and we know you'll join us in welcoming her to our team. There is much to learn and I am honored to share Sher's words with you here in SQ.

On January 19th, 2015, an electrical fire that spread to a 15-foot Christmas tree prompted a blaze that reduced a 16,000-square-foot, unsprinklered, riverfront mansion in Maryland to ruins, killing a couple and four of their young grandchildren. Sher Grogg's brother and sister-in-law, along with her four nieces and nephews were the victims of that fatal fire.

One year later, Sher has turned this tragedy into advocacy. She spent the day in Annapolis, helping Maryland Legislators understand the importance of fire sprinklers in homes. She explains with

great candor that her brother and his family would still be alive had fire sprinklers been installed when the home was constructed in 2007.

This is a great example of what can happen when we partner together. NFSA is proud to be involved in building partnerships that have impact at the state and local level. Partnering with Common Voices, the National Fallen Firefighters Foundation and the Maryland Coalition for Residential Fire Sprinklers, we are working to ensure that Maryland maintains its statewide code adoption that requires fire sprinklers in all new construction. (as is required in the national minimum IRC building code.)

Here is Sher's story:

Having a horrific tragedy befall your family changes your life in a profound way.

I lost my brother, my sister-in-law and their four precious grandchildren, in a fire that was too hot and too fast to escape, in the pre-dawn hours of a January morning.

Since the accident I have been waking at 3:00 a.m. in dread that it is too late and I cannot save my brother, my family.

It *is* too late. Every night I come to grips with that over and over again – every night, still.

At first I searched the internet, in the wee hours of the morning, to learn more about fire, flashover and fire safety advocacy groups; anything to feel I was doing something constructive.

Since then I have met with many fire experts and gained the guidance and

power to share information that may save a life, keep another family from this suffering, or affect a change in residential fire sprinkler codes.

It is the only thing that gives me a sense of purpose in my life right now.

Fire is fast. It's much faster than I ever imagined. Flashover - the point at which everything combustible in the room ignites and the room bursts into flames, can happen in less than three minutes. No one survives flashover. Understanding flashover has helped me realize that fire sprinklers buy time and time buys life.

The one thing that might have made a difference for my family could have been a home fire sprinkler system, which would have slowed the progress of the fire and possibly bought them time to get the children and follow their escape plan. It wasn't in the residential building code when they built their home. If it were, it might have changed the outcome from this deadly nightmare.

I didn't have the knowledge to save my priceless family, but I have it now, to save yours. Join with us and spread the message and support home fire sprinkler systems.

– Sher

>> CONTINUED ON PAGE 28



Director of Outreach & Government Relations

Vickie Pritchett

NFSA President Shane
Ray presents at the NFFF
Leading and Living Life
Safety meeting held
recently in Maryland.



NFSA Director of Outreach & Government Relations Vickie Pritchett moderates a panel that showcased advocates making a difference at the Summit.

> Sher Grogg being interviewed at the state house in Annapolis, following testimony provided.... on the one year anniversary of her family's tragic fire.







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Inspection, Testing, & Maintenance of Residential Systems

By Jason Webb

prinkler, standpipe, fire pump and other water-based fire protection systems installed in residential occupancies can present the owner and service provider with some ITM challenges. Some of these are because of the occupancy itself, while others are due to type of system installed, or even the type of components used. NFPA 25 contains rules that are meant to apply to all of these systems, with the exception of 13D systems installed in one- and two-family dwellings. But even some of those fall under the purview of the most recent edition of the standard.

Many residential occupancies, such as apartment and condominium buildings, have unique characteristics that make performing ITM anything but routine. One issue is gaining access to or within individual living units. The question of access can be a tricky one to deal with, and NFPA 25 doesn't offer much in the way of options. The rules are clear that sprinklers and many other components must be inspected and tested at regular intervals. Working with owners or tenants associations to schedule the tasks is often the best route to take. But what happens if access simply isn't available?

The key is to remember the roles assigned to the various stakeholders which we have discussed at length in this column. It's the owner's role to comply with the standard. If some components of the system that require inspection or testing are unavailable for any reason, the contractor providing the inspection must document that very clearly on the report.

If only common areas were inspected, then the report should state that. If all but a few apartments were inspected, the report should identify which units you couldn't access.

NFPA 25's rules are meant to apply to systems installed in accordance with NFPA 13R, the Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies. Because of some of the materials commonly used in these types of systems though, some of the inspections or tests may not be applicable. For instance, Chapter 14 of NFPA 25 requires that an assessment of the internal condition of pipe (formerly known as an internal inspection) be performed every 5 years. But non-metallic pipe, which is commonly used in these systems, is excluded from that internal assessment requirement.

For systems installed in accordance with NFPA 13D, the Standard for Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, NFPA 25 contains an exception excluding them from inspection, testing and maintenance. Recently, some limited rules for 13D systems installed in certain circumstances have been added to the standard.

NFPA 101-The Life Safety Code® has, for many editions, permitted certain occupancies, namely "small" residential board and care facilities, to be protected using 13D systems. NFPA 101 also requires that certain basic ITM functions be performed on these systems although 13D did not. NFPA 101 established these rules by refer-

ring to particular sections of NFPA 25. For example, NFPA 101 requires that control valves be inspected monthly in accordance with NFPA 25 section 13.3.2.

NFPA 25 strives to be a comprehensive document, containing all of the ITM requirements for all water-based fire protection systems. Because of that and the fact that these rules existed somewhere other than NFPA 25, the technical committee "extracted" them from NFPA 101 into its 2014 edition. An extraction is essentially copying a section from one NFPA standard into another. That's what created the new chapter 16 in NFPA 25 titled "Special Requirements from Other NFPA Documents." See chapter 16 for the complete list of ITM tasks and frequencies.

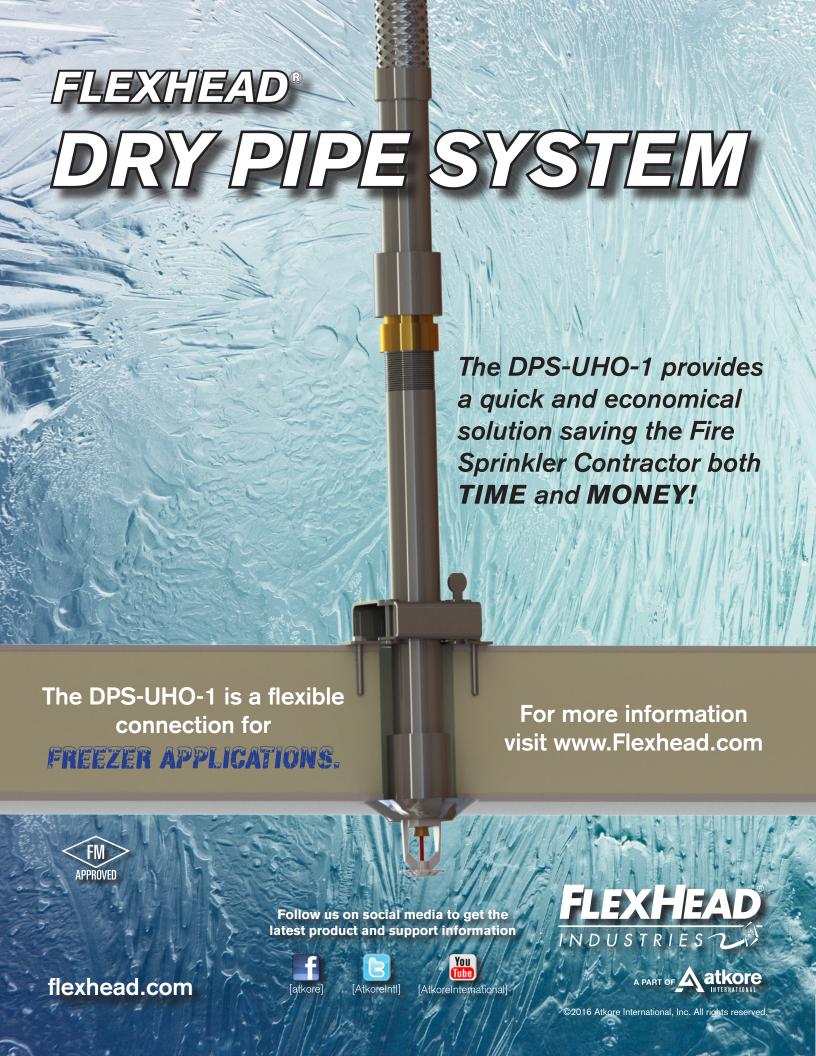
Whether it's timing ITM activities to reduce impact on families, or assisting facility managers with being especially vigilant with impairment handling, many unique situations can arise from ITM in residential occupancies. But one thing is certainly true, when these systems are properly installed and maintained, they have an excellent track record of protecting life and property. Nowhere is that more important that in places where people live.



Director of Public Fire Protection

Jason Webb

www.nfsa.org



Residential Fire Sprinklers in California - A Five Year Update

n the spirit of "Where did the time go?" I am writing to give everyone a 5-year update on the California Residential Fire Sprinkler Regulation. Residential fire sprinklers have been in regulation throughout the Golden State since January 1, 2011. For those of you who are unaware, throughout the state, all newly constructed one and two family homes and townhomes are built with NFPA 13D residential fire sprinkler systems. The state still continues to build and sell new housing.

In fact, California continues to build and sell homes in large numbers. The California Building Industry Association (CBIA) reports in the graph accompanying this article, that since January 1, 2011 through to the projected numbers for 2014, 130,416 single family homes and 151,261 multi-family homes have been built. While the numbers are not up to the pre-recession years of 2005 and 2006, it is clear that states will still build and sell new homes in large numbers with a statewide residential fire sprinkler requirement.

Being the first at anything is always groundbreaking, especially when a state adopts a statewide residential fire sprinkler regulation. In fact there can be challenges along the way. During the preadoption process before the state regulation was adopted, the Office of the State Fire Marshal (OSFM) developed positive relationships with stakeholders that are usually not proponents of residential fire sprinklers. These relationships, which have become stronger during the last five

years, have led to a successful regulation in California. We have kept the promises made to the CBIA, as well as are our friends in the water industry, building and fire officials and other state regulators to work together to resolve challenges that came along with the new regulation. Most of these issues could not have been anticipated during the pre-adoption process. We have learned much through utilizing our relationships. We have worked together and shared our experiences over that last five years with the other states in order to ease the process. The following are some of the challenges that have been addressed since the regulation was adopted on January 1, 2011.

One of the first challenges that carried over from the pre-adoption process was the issue of backflow. This was one of the first issues tasked to the Residential Fire Sprinkler Installation Task Force. In spite of the recommendations incorporated into the State Fire Marshal's final report and the 27 classes conducted throughout the state during the summer of 2010, backflow remained a challenge requiring additional attention.

In response to the need for additional information and discussion, three forums were conducted in 2011 in Ontario, Roseville and Carlsbad. Attendance was open to water purveyors, fire service members, building officials and public health officials. These forums were all widely attended and included morning presentations from members of the three work groups on NFPA 13D system design, issues relating to the water purveyors, the

state's regulation requirements, and an overview of the backflow requirements contained in the California Residential, Plumbing, and Health and Safety Codes. The afternoon featured a question and answers session and open forum with a panel of experts. The forums were generally successful and many of the water purveyors changed their views on the need for additional meters, backflow devices and standby fees as a result of the additional education.

Ultimately the backflow issues was resolved with the California State Fire Marshal Interpretation Bulletin, "California State Fire Marshal Interpretation Bulletin, Backflow December 20, 2013 Interpretation 13-001." The guestion submitted by the author of this article on behalf of the NFSA contractor members in California was as follows: "Is it the intent of Section R313.3.5.3 of the 2013 California Residential Code (CRC) to require backflow protection to separate a stand-alone residential fire sprinkler system from a potable water source supplying the system?" The conclusion of the interpretation was "Based upon code sections above, backflow prevention is

>> CONTINUED ON PAGE 34



Associate-Director of Regional Operations - West

Bruce Lecair

>> CONTINUED FROM PAGE 33

not required in fire sprinkler systems that are constructed of materials that are approved for potable water." This bulletin was distributed throughout the state and is still believed by many fire prevention and building officials to be a must have document in their files when backflow becomes an issue locally.

Antifreeze was the next issue challenging the state's regulation. While California is generally known for its sunshine and great weather, there are many jurisdictions that face severe cold and low temperatures affecting homeowners with residential fire sprinkler systems requiring the use of antifreeze. As such, fire and building officials in communities such as Lake Tahoe, Lake Arrowhead and others needed clarification and guidance. Once again, the State Fire Marshal gathered stakeholders to identify the issues and provide guidance on how to make residential fire sprinklers effective in those areas of the state requiring the use of additional protection from freeze. The result was the release on December 30, 2013 of California State Fire Marshal Information Bulletin - IB13-009, "Antifreeze Use in NFPA 13D (2013 Edition) Residential Fire Sprinkler Systems as Referenced In the 2013 California Building Standards Code."

The Information Bulletin references the NFPA Standards Council meeting held on August 2013 and informs the reader of the final decision that was made to issue the tentative interim agreement (TIA) 13-1, TIA Log #1067, on NFPA 13D 2013 edition. The TIA addresses the use of antifreeze solutions within all NFPA 13D applications (One- and Two-Family Dwellings).

The bulletin also includes the OSFM adoption and intent providing clarification on NFPA 13D Section 9.2.2.1 that requires the use of listed antifreeze, NFPA 13D Section 9.2.2.1 that allows non-listed antifreeze solutions in premix only with limitations on the concentration for existing systems, NFPA 13D Section 9.2.2.2 that provides an exemption for the enforcing agency to approve a non-listed solution in the case of antifreeze concentrations for premixed glycerin at or below 48% or premixed Propylene Glycol at or below 38% where documentation

justifies the use of those concentrations for specific portions of the home. It also clarifies NFPA 13D Section 9.2.2.2.1 requiring that documentation be presented to the enforcing agency to substantiate the use of the antifreeze solution. The bulletin concludes that the OSFM's adoption of NFPA 13D specifically Section 9.2.2.1 and 9.2.2.2 does not prohibit non-listed antifreeze, but rather affords the use of premixed solutions that maintain limited concentration levels.

The next challenge facing the State's Residential Fire Sprinkler Regulation came from an unexpected California stakeholder, our friends in the State Energy Commission who are tasked with managing the state's energy conservation needs and the California Energy Code.

In an effort to see if residential fire sprinklers had an effect on the release of energy in a home, State's energy officials conducted a minor test using a very small survey sample that resulted in a minimal release of energy in residential fire sprinklers in a home. Not to minimize the findings, but the release equated to the sound of muffled noise similar to a person overhearing a conversation from an attic. Based upon the study and in response to the CBIA and the California's energy officials, the State Fire Marshal brought together stakeholders from the fire sprinkler industry (NFSA), fire and building officials, National Fire Protection Association (NFPA), the California Energy Commission, and the California Fire Sprinkler Coalition to discuss the issues and make recommendations. The recommendations would then be formed into an information bulletin for use throughout the state.

After several meetings and presentations from the Energy Commission and the Fire Sprinkler Industry, California State Fire Marshal Information Bulletin 13-007, "Residential Fire Sprinklers and Energy Regulations," was issued on November 18, 2013. As stated in the bulletin, the document was written to provide guidance to contractors, fire sprinkler installers, code officials, and energy providers on how to work together to provide the proper installation of fire sprinkler life-safety systems. The

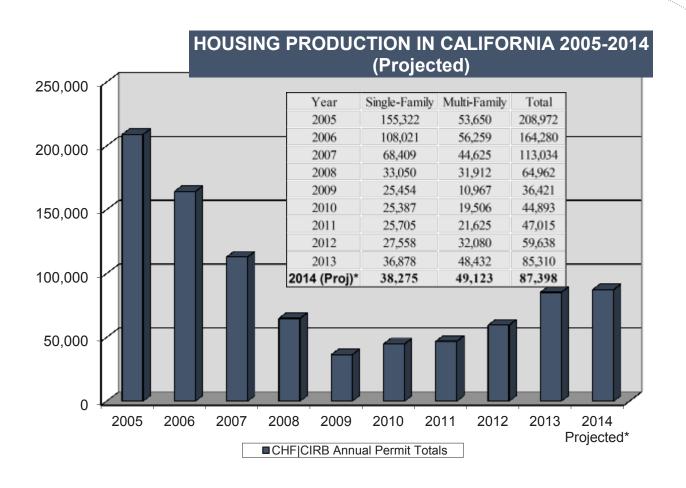
bulletin urges stakeholders, such as fire sprinkler installers and the building and energy industry, to work collaboratively to advance sprinkler design, while providing a more limited air flow needed by the home builders and energy stakeholders to address California's energy regulation requirements. The bulletin contains nine best management practices agreed upon after the presentations and discussions that include management of air filtration, the use of concealed sprinklers, collaboration of system design, installation in accordance with manufacturer's instructions and other useful tips.

The next challenge facing the state's residential fire sprinkler regulation was the issue of spray poly-urethane foam (SPF) on CPVC pipe during the construction of a new home. The issue was brought forward to the OSFM Automatic Extinguishing Systems (AES) Advisory Committee by a local authority in Southern California. The fire prevention official was addressing failures in CPVC pipe when exposed to SPF after the foam was installed improperly when compared to the manufacturer's installation guidelines. The AHJ reported that when the SPF was improperly installed, the internal foam temperature caused by the exothermic polyurethane reaction increased and resulted in failure of the CPVC pipe when directly exposed to the SPF.

A committee comprised of members of the AES Advisory Committee, the State Fire Marshal's Office and state fire prevention officers, and the poly-urethane foam industry was brought together. After many meetings and a tour of the SPF plant by members of the State Fire Marshal's Office, the Information Bulletin 14-004, May 27, 2014, "Non-Metallic Piping Systems, Fire Sprinklers and Spray Polyurethane Foam Applications" was completed. The information bulletin contains four guidelines to provide proper installation. It encourages AHJ's, spray foam installers and the fire sprinkler industry to work together. Also included are websites and information for those in need of additional assistance.

The challenges of local authorities adopting more stringent local amendments in addition to the minimum re-

>> CONTINUED ON PAGE 35



quirements contained in the California Residential Code are becoming less frequent over time. To address the issue of "add-ons" that were discouraged as a best practice in the State Fire Marshal's final report, two papers have been written and efforts have been made by the California Fire Sprinkler Coalition to limit this practice.

A paper published in the September/ October 2011 edition of **SQ** Magazine titled, "Laying Down a Code Related Bunt in California" addresses the issue of addons and encourages readers to "lay down a bunt and take one for the team" while trusting the NFPA 13D committee members and their expertise and experience in residential fire sprinkler design and engineering when creating the national standard.

A white paper, titled, "Limit Local Amendments to Residential Sprinkler Requirements-June 3, 2014," was written by members of the California Fire Sprinkler Coalition. The paper is available to assist in understanding the impacts of system

"add-ons." The authors examine residential fire sprinkler design and installation standards as they pertain to amendments by local jurisdictions. The paper discusses specific add-ons individually and how amendments may jeopardize the statewide requirement and increase the costs unnecessarily to the homebuyers. It further acknowledges that fewer local amendments the better. Amendments that are absolutely necessary should be based upon specific local conditions relative to climatic, topographical, geological, or resource constraints (access and water supply always being a consideration).

The last of the challenges and the most recent of the information bulletins still in development was really the result of observation and diligence on behalf of a local fire prevention official. While conducting an inspection, a fire official observed a device in the meter box that looked unusual. The device is called a meter setter and is used to connect the meter to the water source from the street to the meter and from the meter to the home. The primary issue was that the

friction loss was not accounted during the design of the NFPA 13D residential fire sprinkler system. This was a concern because the jurisdiction was located in the Central Valley of Northern California where water pressures tend to be at minimal pressures. Basically, no one seemed to know anything about the device, its use and what the friction losses were when the system was designed.

As done previously, a committee was formed by the OSFM comprising of members of the AES Advisory Committee with input from the manufacturer of the meter setter and from water purveyors who utilize the devices. The committee studied the issue and the challenges resulting from the use of meter setters and has written a lengthy information bulletin. The bulletin outlines what meter setters are and how meter setters are used. The bulletin provides guidance and information to contractors, fire sprinkler designers, AHJ's, and water purveyors on pressure losses related to the meter setters. The bulletin also details water distribution



system design and installation practices that should be known during design and approval of the water source supplying the needs of the residential fire sprinkler system. Included are two example cases and diagrams of how meter setters are configured.

So far you have read about what we have done previously during the first five years. I now want to share with you what we are currently working on in California. Our next project is to get the word out to realtors, homebuilders, new homebuyers, and to those purchasing homes built with residential fire sprinklers. The focus of these efforts will be what residential fire sprinklers are and the value of having fire sprinkler systems in their homes.

The California Fire Sprinkler Coalition is creating a "California Living with Residential Fire Sprinkler Campaign." Utilizing resources from the Home Fire Sprinkler Coalition website and additional materials provided by the fire sprinkler industry, the Coalition is creating fliers and handouts designed for realtors, homebuilders

and new homebuyers on the benefits of owning a home constructed with a residential fire sprinkler system, how the system works and how to maintain it. The intent of the Campaign is simple. We want to educate Californians on residential fire sprinkler systems and how the system in their homes will keep their families safe from the effects of fire. Campaign materials will be available to the local authorities and may be modified for their individual communities.

After all that you have just read, I expect that you are wondering if having a statewide residential fire sprinkler requirement has been worth all the trouble. Indeed, it has been absolutely worth it. No doubt about it. Recently, my son and daughter in law purchased their first new home. My heart was busting out of my chest when my son responded to a family member when asked, "What is that in your ceiling?" My son replied proudly, "That is a fire sprinkler and the reason you will never have to worry about your grandkids dying in a fire in our house. My dad helped make that happen." I would

have followed with, "And anyone who builds a home in California after January 1, 2011 will not have to worry either." Therefore, I conclude that it is worth all the effort and we are still building and selling homes in California.

ABOUT THE AUTHOR

Bruce Lecair is the Associate Director West and Southwest Regional Manager for NFSA and a 30 year Fire Service Veteran having retired from the Woodland, CA. Fire Department in 2007. He has an Associate of Science Degree in Fire Science, a Bachelor of Science Degree in Management and a Master of Science Degree in Emergency Services Administration. Bruce was awarded the 2010 Cal Fire Partnership Award for superior performance and outstanding contribution demonstrating the ability to work in a cooperative partnership with the California Department of Forestry and Fire Protection for his efforts in the initial adoption of the California Fire Sprinkler Regulation.•



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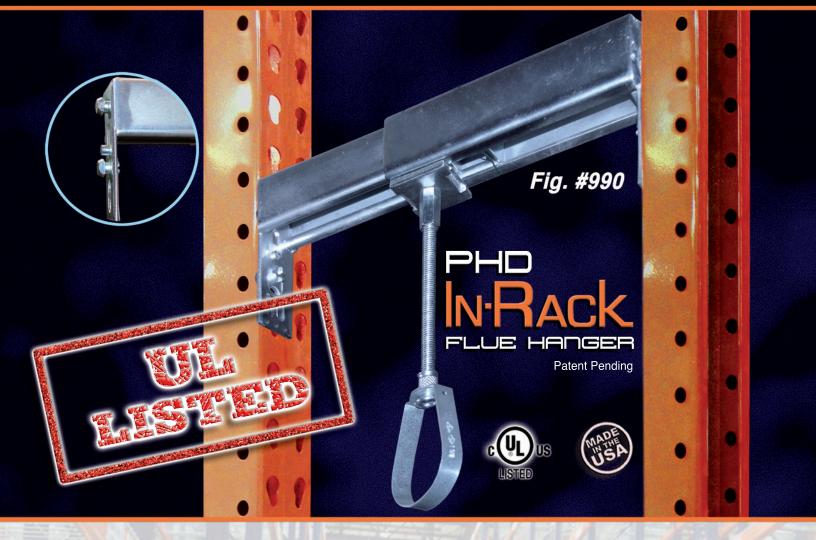
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NFPA's Life-safety Sprinkler Systems Challenge Workshop

he National Fire Protection Association recently sponsored a workshop to discuss the experience and effectiveness of life-safety sprinklers systems. NFPA 13D and NFPA 13R are installation standards that concentrate primarily on improving occupant safety as opposed to providing property protection. This workshop, which was held on December 14 and 15 of 2015, was intended to determine if these life-safety systems are meeting their intended goals and if steps are needed to improve these systems by changing the installation standards or the building codes that mandate them. In order to assess the effectiveness of these systems, NFPA brought together a wide spectrum of stakeholders including; sprinkler system contractors, manufacturers, fire service personnel, enforcers, building owners. insurance companies, consultants, laboratories and others. This wide range of interests ensured that a comprehensive view of the issues was explored.

Jeff Hugo and I represented the National Fire Sprinkler Association. We each wrote an article based upon our own perspectives of this workshop. This article will concentrate on the standards (NFPA 13D and NFPA 13R,) while Jeff Hugo's article will discuss the implications to the building code. Additionally, this issue of SQ includes an article by Russell P. Fleming, P.E. highlighting the "History and Future of the NFPA 13R Standard."

This article is not intended to be the official report on this important meeting

but rather will highlight my perceptions as a participant. NFPA will likely publish their official report in late spring or early summer of 2016.

As these life-safety systems have been installed for nearly 40 years (NFPA 13D was first published in 1975 and NFPA 13R's first edition was in 1989) the guestion becomes; why are these systems being discussed now? One obvious reason is that after 40 years of NFPA 13D and 26 years of NFPA 13R, we now have the benefit of history to determine the effectiveness of these systems. Additionally, there have been recent cases of properties protected with a NFPA 13R sprinkler system that, while no lives were lost, did result in significant property damage. The Edgewater fire in New Jersey is one notable example. It is difficult to convince the public and some stakeholders that a burnt out shell of an apartment building is an acceptable outcome and is considered a sprinkler system success. The fact is that when lives are not lost it is a success; however property damage is an inevitable (although rare) result of the cost-saving allowance of these life-safety sprinkler systems.

Based upon fires such as Edgewater, the focus of this workshop was NFPA 13R and specifically the allowed omission of sprinklers in the attic spaces of combustible mid-rise residential occupancies.

Below is a summary of some of the topics discussed and the questions that were explored:

Is there a problem?

One topic of discussion was whether there was a problem to solve in the first place. The conclusion was that the data is just not there to conclude that there is an issue with buildings protected with NFPA 13R sprinkler systems. It is true that there are fires in attics that result in extensive fire damage and roof burn-off, but how common is this? The data available is not enough to conclude that there is a problem to solve. All agreed that method and quality of data collection must be improved. The problem, if there is one, must be understood before solutions can be introduced.

NFPA 13R: Is it needed?

There has been talk that perhaps NFPA 13R is not needed in today's climate. Without the allowance for NFPA 13R systems, there would be two options for mid-rise residential occupancies: the first would be to install a NFPA 13 sprinkler system. This option would certainly maintain, if not increase, the life-safety benefits and would also increase the property protec-



Manager of Technical Services

Roland Asp, CET

tion from fire for these buildings. The downside is the added cost.

This added cost may result in the second option which would be no sprinkler systems in these buildings at all. The costs for a NFPA 13 system in mid-rise residential occupancies may lead to code changes to allow these buildings to be built without fire sprinkler systems. As America's fire problem is often regarded as a "residential fire problem," this would by all measures be a step backwards.

It is important and heartening to note that as a whole, the participants of this workshop supported NFPA 13R as an important and effective standard as it is written today. There certainly was no call to eliminate NFPA 13R as an option for residential occupancies.

It was further discussed that if attics were required to be equipped with sprinklers in NFPA 13R, the cost benefit of these systems would be erased and NFPA 13R would effectively be "killed." Most at the workshop agreed that this was not desirable. Without NFPA 13R, many of the mid-rise residential occupancies would not be sprinklered and lives would be lost. NFPA 13R has been effective at saving lives of both occupants and of the firefighters responding to fire incidents. It was also noted that if additional property protection is desired there is always the option to install a full NFPA 13 sprinkler system. It was agreed that NFPA 13R was the avenue that provided sprinkler coverage in mid-rise residential occupancies in the first place. Before the cost effective NFPA 13R system became an option, these types of buildings were simply not sprinklered. If NFPA 13R went away, it is feared that future mid-rise residential buildings may not be sprinklered. A NFPA 13 system is just not cost effective for these types of buildings. It was noted that NFPA 13R was written to fill a need and has been proved effective at meeting that need.

Attic Spaces:

It was discussed that attics themselves do not prevent a significant fire hazard. It is just not common that a fire will originate in the attic itself. The problem arises when a fire from another location, most notably the exterior, breaks into an unsprinklered attic space. A common area for these exterior fires to start is on balconies. The risk from exterior balcony fires has been, to a large extent, dealt with by requiring sprinkler protection on balconies in both the building code and NFPA 13R itself. Beginning in the 2013 edition of NFPA 13R sprinklers are reguired to be installed in balconies when the building is of wood frame construction. This requirement has been in the International Building Code (IBC) since 2003. Some believed that, while balcony protection was a good start, combustible exterior finishes on buildings protected by a NFPA 13R system (without attic protection) should be restricted.

It is important to note that there was not a significant call at this workshop to require attic protection in buildings protected by an NFPA 13R sprinkler system, although options to provide additional protection of attics were discussed. These options regarding enhanced attic protection were based more on fire department access, combustible exterior finishes and public perception of the success of a life-safety sprinkler system than a strong belief that all attics must be protected with sprinklers.

There was a proposal to provide sprinkler protection in the attics along the eaves only. This was intended to protect the attic from fires crawling up the exterior of the building. This was discussed but it is not clear that there was a strong belief among participants that this is a necessary amendment to NFPA 13R or the building codes.

Another option discussed was to provide enhanced attic protection, be it sprinklers or passive protection, in residential buildings with attics at high elevations above grade when protected with a NFPA 13R sprinkler system. This recommendation would apply to buildings 55 ft or higher and was directly in response to the Edgewater fire. This is a proposal that will be submitted to the building codes. There was no call, however, to submit similar language to NFPA 13R.

Scope Creep (Pedestal Buildings):

In recent editions of NFPA 13R the scope of the standard was revised to allow NFPA 13R to be used in buildings up to four stories and buildings not exceeding 60 ft. in height. There has been concern that this allowable height of 60 feet would put the attic out of the reach of the fire department. The participants, including representatives of the fire service, were not convinced that the 60 ft height allowance was a significant issue and there did not seem to be significant call to restrict the height of these residential structures to a lower height than currently allowed.

This 60-foot height would also allow pedestal type buildings. This would allow, in essence, a five-story building to be protected with a NFPA 13R system. This configuration could consist of a fourstory residential building installed on top of a single story commercial building. As stated, the height did not seem to be a significant concern. There was mention, however, that there are different tactics for fighting fires in a structure with attic sprinklers opposed to buildings without attic protection. If a fire department arrives to five-story building, they may assume that the building is outside the scope of NFPA 13R and any combustible attic spaces would be provided with sprinkler protection. This would not be the case if the building in question was a five-story building of the pedestal type. The consensus to this issue was fire fighter training as opposed to restricting the building height to four stories maximum. It was mentioned that perhaps signage may be the answer and a pedestal building protected with an NFPA 13R system should be marked as such. Others stated that the fire departments should be better informed on the type of sprinkler systems installed in buildings within their jurisdiction.

As for scope creep and pedestal buildings, it was pointed out that pedestal buildings may in fact provide improved protection from exterior fires. As the ground floor of a pedestal building would be a commercial occupancy, the construction of this story would generally be required to be non-combustible and fire originating on the ground would not

ignite the exterior of the building, potentially getting into the attic space.

The general consensus of this life-safety summit seems to be that the current 60-foot height limitation for buildings protected by NFPA 13R sprinkler system is not necessarily a problem and the participants are not convinced that the standard has undergone scope creep.

Size and Access:

The size of the building and fire department access are certainly factors in NFPA 13R systems but, based upon the conversations at the workshop, there was not a clear consensus that changes to the codes or standard are necessary in regards to building size or fire department access.

Heights and Stories:

The allowable height and number of stories that are permitted in order to utilize NFPA 13R was discussed. It was noted that the number of stories may not be as important as the overall height of the building. As stated above, the participants as a whole did not have a problem with the current 60-foot height limitation.

Construction materials:

There was a segment of participants who were concerned that that the combustible exterior finishes of these residential building is the biggest problem and the one that causes the largest number of attic fires. Fires beginning on balconies and other exterior locations, such as mulch around the perimeter of the structure, can ignite the combustible exterior and the fire can then breach into the unsprinklered attic. Balconies have been addressed as stated earlier in this article. However, there were those who expressed the opinion that combustible exterior finishes should be restricted when the building is protected with a NFPA 13R system without sprinkler protection in the attic spaces.

Education:

One aspect that nearly all participants agreed upon is that education is necessary. The public and other stakeholders must be educated about the purpose and scope of life-safety sprinkler systems. Both the limitations (lack of property protection) and the advantages (life-safety and cost) must be highlighted. It was noted that building owners and builders must be made aware of these issues and also understand that there may be advantages to spending extra money and installing an NFPA 13 system. These advantages include enhanced property protection and possible insurance savinas.

Data Collection:

Another aspect that was universally accepted at this workshop was the need for improved data collection. This workshop seemed to be geared to fixing potential problems in the life-safety standards. However, based upon what we know, there is not a clear indication that there are problems to solve. Before solutions or changes to the codes and standards are proposed to these life-safety standards, we must be sure that there is a problem to solve. More accurate data is needed to make this determination. When there is a fire in a residential building protected by an NFPA 13R system, accurate and detailed information is needed. Only with this information can it be determined if changes or enhancements are needed. Some suggestions to improve that data collection were; create a national database for residential occupancies, incentives to fire departments to collect and record accurate and detailed information and reaching out to insurance companies who already have this information.

Is the solution in the codes or in the standards?

The participants of this life-safety workshop overwhelmingly agreed that changes would need to be in the building codes and not in NFPA 13R standard. There was no strong call to require attic protection in the standard or to amend the scope of NFPA 13R to restrict pedestal buildings or to lower the maximum height of 60 feet.

There seemed to be a strong belief that NFPA 13R is working and that this standard continues to be needed and is effective. Surprisingly, there was very little call for NFPA 13R to require attic spaces to be provided with sprinkler protection. If additional protection provisions for attics or limitations to where NFPA 13R systems are deemed appropriate, the consensus of the group seemed to be that such changes should be in the building codes and not the installation standard.

Conclusion:

The life-safety work shop was an important step in ensuring that the codes and standards are providing the appropriate level of protection from fire and also meeting the expectations of the codes and standards that specify these life-safety systems.

As a participant of the workshop, the lessons that I learned are as follows:

- NFPA 13R is respected by all stakeholders and significant changes to the standard were not called for.
- Data collection needs to be improved in order to determine if there is an actual problem to solve.
- Sprinkler protection in attics was not called for by the stakeholders in this workshop.
- Changes, if needed, would be best accomplished in the building codes and not in the installation standards.
- Inspection of the passive protection in the buildings (draft stops, etc) needs to be improved.
- Education of both the public and the various stakeholders needs to be improved.
- The life-safety benefits of a NFPA 13R or NFPA 13D sprinkler system seem to be undisputed by all stakeholders involved.

Please join our Advocates' Coalition as we work to create Fire Safe Homes

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





www.fireadvocates.org

Fire Sprinklers Save Lives

Meet The PROs Dyne Technologies

www.dyneusa.com

yne Technologies was founded in 1999 by Joan Leedy. Joan has worked in the fire protection industry for over 30 years with experience in formulations, testing, approvals and design, and currently serves as Chairman on the NFPA Foam Committee and the UL 162 Industry Advisory Board. Integrity, innovation and quality are values that Dyne Technologies was founded on and continue to be the foundation of Dyne Technologies today. We strive to work with our customers to "partner to protect lives and property," through quality testing procedures and working to make the testing system smooth and easy for our customers. The company was recapitalized in 2013, bringing on additional capital and resources. Mark Spaniol joined Dyne Technologies in 2013 and is our current company President, Mark brings a wealth of operational management along with strong finance and accounting experience. Joan Leedy continues to play a significant role at Dyne Technologies as our Technical Director with her time focused on quality and new product development.

Dyne Technologies is a compliance testing company that specializes in the fire safety industry, testing fire-fighting foam and antifreeze solution used in sprinkler systems. Antifreeze solution testing, specifically, has been a hot button issue within the sprinkler industry with several incidents occurring that have raised questions regarding the solutions safety and effectiveness in fire sprinklers. The NFPA committee standard 25 for the

Inspection, Testing and Maintenance of Water Based Fire Protection Systems recommends annual testing, along with level limits and guidelines if the type of solution is not known.

NFSA members since 2011, Dyne finds the NFSA is a great source of information on the fire sprinkler industry. It aids in our mission, to promote general fire safety to the industry, by making them aware of recommendations and guidelines set forth by the governing bodies regarding testing of their fire safety systems. It's also a great way to promote Dyne Technologies to potential customers.

Dyne has been ISO 9001 certified since 2004 and takes quality in account in all aspects of our business. We really take pride in the level of lab testing quality and customer service that we offer. Our standard turn-around is five business days and we also offer rush (24 or 36 hour depending on the type of testing that is being performed) services. We have chemists that are available to consult on issues related to the test or to situations in the field and we also offer things such as free test kits, free shipping to locations within the continental United States, free reminders, laminated tank tags and professional reports, which are archived and available to customers either through a secure link on our website, or by calling one of our customer service staff.

On the lighter side, it seems like everyone at Dyne owns a pet-dogs, cats, even a ferret. We do have one special pet that comes to the office every day with his owner, Chemist and Lab Manager Grant Lobdell, Zeke, our 100+ pound Chesapeake Bay Retriever. He's been coming into the office since he was 7 weeks old. Zeke enjoys being spoiled by the entire staff.

Dyne is proud to give back to the community and is a bronze level sponsor of the National Fallen Firefighters Foundation (NFFF), with a portion of the proceeds from every sample going to the NFFF

Dyne Technologies is located in Woodbury Minnesota, a suburb of St Paul. Our office and lab are located in somewhat of a wooded area and we enjoy the wildlife that sometimes wanders through the parking lot-deer, wild turkeys, coyote and many birds. Minnesotans love their outdoor activities and take advantage of Minnesota's "10,000 lakes" and the highest number of golf courses per capita in the United States. Our staff also enjoys rooting on the hometown sports teams, the Vikings (football) Twins (baseball) Timberwolves (basketball) and the Wild (hockey).

>> CONTINUED ON PAGE 44

The Meet the PROS feature is available to any NFSA Professional 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.



>> CONTINUED FROM PAGE 43



Dyne's staff, 1st row (I-r) Joan Leedy, Technical Director, Kayla Kuhlman, Quality Manager/Chemist, Jody Lowe, Sales Manager/Technician, Jennie Novak, Administrator 2nd row (I-r) Grant Lobdell, Lab Manager/Chemist, Taylor Gregory, Chemist, Mark Spaniol, President, Julie Bunch, Customer Service Manager, Don Leedy, Sales Director



Dyne takes quality in the lab very seriously and has been ISO 9001 certified since 2004











THINK YUU CAN EXIT YOUR BURNING HOME IN 60 SECONDS? CAN YOU RUN BLINDFOLDED WITHOUT BREATHING?

Every second counts during a fire. But thick smoke can blind your eyes and burn your lungs, which will slow you down. By giving you more time, fire sprinklers increase your chances of survival. To help save more lives, join NFSA today.



Learn more at nfsa.org

www.**nfsa**.org

Zero Tolerance — And a Different Kind of Near-Miss

Note: The following article was published in the February issue of Firehouse. It is reprinted with his permission.

n 1987, Prince George's County Maryland instituted strong smoke alarm legislation, requiring all new homes permitted after 1987 to be built with hard-wired smoke alarms on every floor. The Prince George's County Fire/EMS Department (PGFD) followed smoke alarm legislation with residential sprinkler legislation in 1992, becoming the first county in the United States to require both smoke alarms and fire sprinklers in all new construction. Additional legislation has since expanded to carbon monoxide detectors (where applicable) and smoke alarm requirements on all floors and in all sleeping areas in all existing residential properties, regardless of age.

Fires and fire fatalities have decreased significantly since 1987, due largely to expanded fire prevention, public education and legislative efforts (Community Risk Reduction - CRR). Even with all those CRR efforts in Prince George's County, including aggressive legislation and enforcement, there have been over 7,000 residential fires resulting in 230 fire fatalities and 644 fire-related injuries since 1992. PGFD's major fire problem continues to be small to medium-size single-family homes and medium-size garden-style multi-family residential properties.

In 2009, a "15-year Report" on the Prince George's County experience was completed by Steve Weatherby, in cooperation with the Home Fire Sprinkler Coalition. That report produced an astounding, albeit not unexpected, statistical comparison of fires in sprinkler-protected

vs. non-protected structures. Above, I reported 230 fire fatalities and 644 fire related injuries in Prince George's County since 1992. It is important to recognize that 96% of these injuries and 100% of the fatalities occurred in residences where there was no sprinkler protection. Of the 7,000 residential fires reported above, 667 occurred in sprinkler-protected homes. In each case - 667 times - sprinklers activated and held the fire in check resulting in zero fire fatalities and approximately 23 injuries. A second comprehensive update on this report, encompassing 25-years of data will be completed during 2016.

The Near-Miss

As I write this article (and find my superstitious self knocking on wood), we have just completed the analysis of a different kind of near-miss in a sprinkler protected single-family home. The home, constructed in 1992, is part of a much larger development permitted/built on both sides of the residential-sprinkler requirement date. In this development (as well as many others), neighboring homes on the same street vary in their level of protection, purely based upon the construction-permit-date.

The two-story colonial style home, built over a walkout basement, sports residential sprinklers on all floors, including the originally unfinished basement level. The current owners purchased the home from an owner, who had previously fin-

ished the basement with living, sleeping, and storage space. The house was then rented to the current occupants. At first blush, the basement-finish job looked typical – not flashy, not shabby.

The Jennings Mill community is a quiet residential area on the southern edge of the City of Bowie, about 5 miles east of Interstate 95. On the cold, snow-covered Sunday morning, March 7, 2015 a 911 call was received reporting a fire in the basement on Jenkins Ridge Road. The second-floor caller reported being awakened by smoke alarms with smoke issuing from the basement. The early smoke alarm notification allowed two adults enough time to exit the home, with an adult resident reported as unaccounted for and presumed trapped in the basement.

First arriving units reported smoke showing from the home, confirming the report of one trapped in the basement. Crews stretched an attack line to basement entrance, affected a quick rescue of the occupant and knocked down the fire in the basement, where sprinklers were now flowing. The 61 year-old male occupant suffered 2nd and 3rd degree burns over 40% of his body. He was flown by Maryland State Police Medivac helicopter to the Washington Hospital Center burn unit in critical condition. After months of extensive care and rehabilitation, the victim was released from the hospital in good condition.

How does this happen? As stated above, in 23 years of sprinkler protected

home-fires statistics, only 23 civilian/occupant injuries have been reported during sprinkler activation incidents, while 621 injuries were reported in non-protected occupancies. PGFD's fire investigators quickly noticed some abnormalities with the basement construction finishes. There were two types of finished ceiling in the basement area, including both finished drywall and suspended-track-panel ceiling. Investigators were astounded to find that both of those ceiling were installed BELOW the original construction sprinkler heads, with no provision whatsoever allowing for sprinkler penetration. Fortunately, the suspended ceiling failed fairly quickly during the fire event, which allowed enough heat to trigger a sprinkler head. Ultimately, four sprinkler heads would activate, as heat traveled between ceilings, which then caused the drywall ceiling to fail, allowing water to ultimately reach the seat of the fire, this occurred as firefighters were entering the basement with their attack line.

After evaluating the scene and interviewing the occupant at the burn unit, investigators determined the fire was caused by clothing and combustible materials placed too close to a portable heater. The heater caused the combustibles to ignite, which spread to the couch that the occupant was sleeping on.

Conclusions

New construction and permitting must be closely tied to ensure proper fire protection measures are in place. The retrofit and after-market finishing made by an occupant without permitting is clearly a contributing factor to this fire and its nearly tragic outcome. It is imperative that departments and applicable inspectors are fully aware of the functionality relationship between construction, inspections and proper working order of sprinkler systems. A public education effort may or may not have impacted this construction decision. It is clear, however, that even when the sprinkler functionality was hampered by human intervention, the sprinklers still activated and likely prevented a fire fatality and significant structural loss to this home. Smoke alarms and sprinklers save lives. The evidence is irrefutable. We continue to have zero-tolerance for fire fatalities in sprinkler-protected homes.

Marc Bashoor is Fire Chief of Prince George's County, Maryland.

PEOPLE

In Memoriam

NFSA Remembers Long-Time Member BOB WORTHINGTON

The National Fire Sprinkler Association (NFSA) extends deepest sympathy to the family of **Robert C. (Bob) Worthington**, Chairman and CEO of Globe Fire Sprinkler Corporation. Bob passed away on Monday, February 1, 2016.

Bob was awarded the NFSA Golden Sprinkler Award in 1997. A registered professional fire protection engineer, Bob was instrumental in building three major sprinkler manufacturing companies: Star Sprinkler Corporation; Central Sprinkler Company; and Globe Fire Sprinkler Corporation.

Bob's knowledge and dedication to the fire sprinkler industry was evident when he was a member of the NFSA Board of Directors and Manufacturer's Council. His professional memberships included the National Society of Professional En-



gineers and the Pennsylvania Society of Professional Engineers.

"We send our deepest sympathy to the family and friends of Bob Worthington, we have lost another legend within the fire sprinkler industry," said NFSA President Shane Ray. "Bob was always ready to share a story and advice, and he will be missed by all who knew him."

During Bob's 20-year stewardship of Globe Sprinkler, employment grew five-fold, and today is the largest employer in the region. This stewardship has been passed on to son Steven, who assumed operations and ownership of Globe in 2013.

In both personal and professional life, Mr. Worthington believed in sup-

porting the communities where he lived and worked, and to further advance life safety through his active support and participation in professional fire protection associations. Among the charitable organizations Bob supported were the Good Samaritan Homeless Rescue Mission in Bay City, Michigan, Common Voices coalition for a Fire Safe America, and multiple burn camps for children that have suffered severe burns.

Mr. Worthington is preceded in death by father George Clifford Worthington and mother Ruth Elizabeth (Sharples) Worthington of Rhode Island, sister Dorothy McGreevy (Patrick). He is survived by spouse Dana Thatcher Worthington; four stepdaughters, Andrea (Rick Fox), Stacie Quast, Sara (Joshua Strand), and Stephanie Sabo; sister Bette Bousquot (Edgar) of Rhode Island and her two daughters; Children: Bob Worthington, Jr. (Dece), Steven Worthington (Amy), Kimberly Myers (Billy) of Warrington, PA, and David Worthington of New York City. Bob is also survived by many beloved nieces, nephews, grandchildren and great grandchildren.

Donations in lieu of flowers may be made to the Common Voices (fireadvocates.org), or the Good Samaritan Homeless Rescue Mission in Bay City, Michigan. (gsrmbaycity.org).

In Memoriam

Raymond J. Malek

The NFSA regretfully announced the passing of longtime member **Raymond J. Malek** on January 17, 2016.

Anyone who has been around the fire sprinkler industry for any period of time knew Ray Malek – and for good reason. His mild-mannered way and savvy business acumen made him a cornerstone in the industry for 60 years. But what many people outside his immediate family may not know is that his commitment and dedication to the fire sprinkler industry may have been preordained by an event he was too young to remember himself. At the tender age of six months, Ray's family homestead was destroyed by fire and he was carried to safety, narrowly avoiding certain disaster.

In 1949, while serving in the Air National Guard, Ray attended Marquette University School of Engineering. Two years later, the Korean War interrupted his education when he was called to active duty at the Eastern Air Defense Command in Bangor, Maine and North Truro, Massachusetts. At the end of his tour of duty in 1953, he accepted a position as Engineering Associate at Paul J. Grunau Company while picking up with his education at Marquette.

During his years with Grunau Company, Ray held many positions, including Senior Vice President. Under his watch, Grunau grew to become one of the largest and most successful sprinkler contractors in the country. In 1971, Ray was instrumental in the acquisition of Vogel Corporation, a sprinkler manufacturing company in Connecticut formerly known as Eddy Sprinkler Company. Shortly after the ac-

quisition and relocation of Vogel to South Milwaukee, Wisconsin, the company was renamed Grunau Sprinkler Manufacturing Corporation. Ray managed both Grunau Sprinkler Manufacturing and Grunau's contracting division through 1975. In 1976, he was named President of



Grunau Sprinkler Manufacturing, a position he led through 1983, the year Grunau Company purchased Star Sprinkler Corporation. Following the purchase, Star Sprinkler merged into Grunau Sprinkler Manufacturing, retaining the Star Sprinkler name. Following the merger through 1987, Ray served as Executive Vice President of Star Sprinkler Corporation.

Still, after 33 years of success in the industry, Ray longed to run his own company, which motivated him to buy the Star Sprinkler Distribution Center in Anaheim, California and founding Starfire, Inc. Shortly afterward he opened Starfire's Midwest distribution center in St. Francis, Wisconsin and turned a relatively small

business into leading distribution centers in the Midwest and Southern California.

Over the years, Ray served on numerous NFSA committees. In the early years from 1954 to 1971, he was a member of the NFSA Local 183 Joint Apprenticeship and Labor Negotiating Committee, where he was instrumental in getting licensing requirements for installers of fire sprinkler systems. From 1971 to 1984, he served on the NFSA Engineering & Standards Committee, a time at which fast response sprinkler technology was being developed. He was Chairman of the NFSA Engineering and Standards Welding Subcommittee, where he played an integral role in the development of welding requirements adopted by the National Fire Protection Association (NFPA). In fact, many of Ray's drawings and welding details remained in NFPA 13 until 1999. He also served on the Association's Board of Directors from 1975 to 1987 and was a member of the Supplier and Manufacturers (SAM) Council until 2003.

In addition to his contributions at the national level, Ray's participation over the years with the Wisconsin Burn Center Golf Invitational helped to raise millions of dollars for burn victims of all ages.

Back in the year following his active military duty, Ray had married Violet. Together they raised seven children-Duane, David, Dean, Dawn, Denise, Dan and Darrel. All seven children and two grandchildren have worked in the sprinkler industry at one time or another with some still in the industry today.

In recognition of his many contributions to the fire sprinkler industry, Ray was recognized with the Golden Sprinkler Award, NFSA's highest honor, in 2003 at the Annual Seminar in Savannah, Georgia.





NFSA ANNUAL SEMINAR LAGUNA CLIFFS MARRIOTT RESORT & SPA DANA POINT, CALIFORNIA

MAY 3 - 6, 2016

What's the Point of Dana Point?

While the main reason we'll be in Dana Point, California will be to take part in an innovative and one-of-a-kind experience called the 2016 NFSA Annual Seminar & Business



and Leadership Conference, we will have plenty of free time to explore our surroundings. This fact left me feeling a little bit apprehensive, I'm not one to sit still for long. When I first learned of our new event location I figured, well, it's a beautiful boutique hotel by a pretty beach... and that's about all. I don't know about you, but I can take about one day of sitting on a quiet beach watching the boats go by... and that's about it. When I travel I like to do things I've never done before and see things I haven't seen before.

After a little research, I found that not only is the Dana Point area chock full of things to see and do, it is worthy of an extended stay. Since you are coming to the

conference anyway (with the killer line-up we've got in store, how can you not?), tack some time on before or after to truly enjoy and explore your surroundings.

Where's Dana Point?

Dana Point is located in southern Orange County, California, halfway between Los Angeles and San Diego. Dana Point is within an hour's drive of four major airports: John Wayne (just 18 miles away), San Diego, Ontario, and LAX. It has one of the few harbors along the Orange County coast and is a popular destination for surfing. The harbor offers more than 30 shops where you can find everything from Indian artifacts to artisan chocolate. There also are more than a dozen restaurants, many with beautiful water views. The harbor offers many things to do in Dana Point, including hosting a range of lively events, such as art shows, concerts and movies.

What's There To Do?

If you see something you like in the following descriptions, just get in touch with the concierge at the Laguna Cliffs Marriott at 949.661.5000. You can book your adventures ahead of time and spend your time enjoying all the NFSA Annual Seminar has to offer when you get to the hotel!

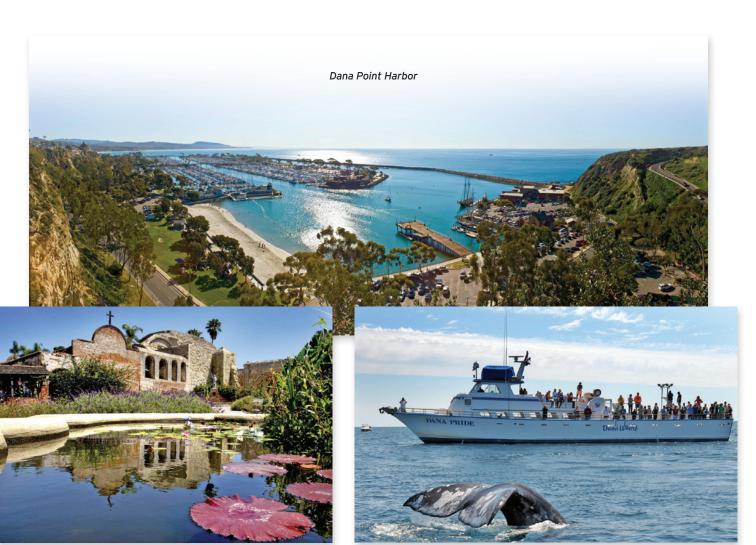
Whale-Watching

Dana Point residents are celebrating the return of Grey Whales right off their coast. Whale-watching has never been better and there are several local whale-watching expeditions available. Sightings of whales off Dana Point are way up this year and it is common to encounter large schools of dolphin as well.

Boating

Love the open sea and the salty air? Here you can experience it firsthand. Dana





Mission of San Juan Capistrano

Point boasts one of the most beautiful harbors in California. It offers visitors easy access to boat launches, rentals, and charters, year round due to its ideal climate. Taking to the open seas has never been easier, or more beautiful, than it is in Dana Point.

Mission San Juan Capistrano

Just like the famed swallows, visit once and you too will want to return to Capistrano. Built in 1775, Mission San Juan Capistrano, the Birthplace of Orange County, was the 7th of 21 missions statewide. Today it is a monument to California's multi-cultural history, embracing its Native American, Spanish, Mexican and European heritage. Originally built as a self sufficient community by Spanish Padres and Indians, the Mission was a center for agriculture, industry, education and religion.

There are many areas of interest throughout the Mission grounds. Wander

through ten acres of lush gardens and cool fountains, cloistered by old adobe walls. Visit the Serra Chapel, Padres Quarters, Industrial Area, Soldiers Barracks, Cemetery and The Great Stone Church. The mission is open daily from 8:30 a.m. to 5:00 p.m. and only a short distance from Dana Point.

Ocean Institute

At the far west end of Dana Point harbor is the Ocean Institute, a world-renown ocean educational facility. It's known for one-of-a-kind, hands-on learning programs for marine science, environmental education and maritime history.

Visitors can participate in a variety of family friendly experiences include 20-minute lab activities, viewing of sea creatures, even octopus and jellyfish feedings.

The Institute's 70-foot research ship, Sea Explorer, is a fully equipped floating laboratory and provides daily cruises to study and observe marine life and the unWhale Watching

dersea world just offshore. Docked near the Ocean Institute is a full-sized replica of the nineteenth-century "Tall Ship," Pilgrim, where children have the extraordinary chance to experience what life was like at sea in the 1800s. You can also take an adventure cruise on the Ocean Institute's 118-foot Tall Ship schooner, Spirit of Dana Point. Historical characters will bring you back to the Golden Age of Sailing... and who knows, you just might run into some pirates!

Laguna Beach

Nearby Laguna Beach is home to a wide range of activities and entertainment. Perched upon a cliff-top, the town has a sweeping view of the Pacific Ocean. Window shoppers and collectors will enjoy strolling the village's quaint streets, as well as visiting galleries spotted along Pacific Coast Highway. Needless to say, Laguna Beach boasts what some arguably say are the best beaches in California! ①

HO NEWS

NFSA's Victoria Valentine Reelected



Victoria B.
Valentine, P.E.,
NFSA Director
of Engineering,
was reelected to
the Society of
Fire Protection
Engineers
(SFPE) Board of
Directors for a
three-year term

that began in January 2016. The SFPE membership voted her to be one of nine Directors to serve the Society under the newly adopted structure approved with the new constitution this past summer.

SFPE is a global organization that works to advance the science and practice of fire protection engineering. It promotes best practices for fire protection engineering and fire safety engineering through their publications and educational sessions.

"It is an honor to be elected to help shape the activities and future of the SFPE as well as fire protection engineering worldwide" explained Valentine. "The NFSA and SFPE are aligned in that they both work towards a fire safe world."

In her position as Director of Engineering for NFSA, Vicky and her team of dedicated staff do a fantastic job with not only teaching across the globe, but also responding to NFSA member needs with our unmatched Expert of the Day program.

"We congratulate Victoria on her election," said Shane Ray, NFSA President. "Serving our members includes service to our respective professions and SFPE will benefit from her dedication to their mission."

NFSA Board of Directors Election Results

All of us at NFSA thank the candidates and everyone who voted in our Board of Directors election held in December of 2015. We are pleased to announce election results for the following contested races:

Area 12:

Jack Thacker, Allan Automatic Sprinkler Corporation

SAM Council: (4 seats)

Bob Bussiere, Wheatland Tube Company

Chuck Kitts, System Sensor

Bob Knose, Ferguson Fire and Fabrication

Bruce LaRue, Potter Electric Signal Company

We are also pleased to announce those elected in non-contested races:

Area 3:

Ken Brinkley, Music City Fire Sprinkler

Area 8:

Dennis Coleman, Engineered Fire Protection Incorporated

Area 10:

Harry Nothhaft, L. Nothhaft & Son Incorporated

All of these terms are for 3 years and will be sworn in at the March 10, 2016 Board of Directors meeting in Nashville, Tennessee. We look forward to continued progress as an inclusive association and serving with these great fire sprinkler industry leaders. By working together, our future is bright.

POSITIONS OPEN AT NFSA



If you enjoy:

- A competitive salary
- Excellent benefits
- Flexible time
- Positive work environment
- An engaged employee team
- Independent thinking
- Team-oriented execution
- Making a difference

We would like to meet you and share more information about who we are, what

we do and how you could join our team!

NFSA started in 1905 and has a proud, progressive history that provides many opportunities for those invested in the business of life safety. We have recently completed a re-organization and have new leadership that is prepared to challenge the status quo and create an environment to further our cause. This is an exciting time to be involved as we build a team that can serve our membership, saving lives as part of the process.

Some of the posted positions are based out of our national headquarters and some of these positions are based out of the field as appropriate for the position.

If you're ready to join a proactive team engaged in working to make the world a safer place to live, work, play and grow... contact us!

POSITIONS AVAILABLE IN 2016:

- Vice President of Engineering
- Director of Finance & Administration
- Director of Training
- Retrofit Specialist
- Administrative Assistant/ Legal Secretary
- Field Service Coordinator (Great Lakes)
- State Coordinators (part-time)
 -Arizona, Maryland, Missouri
- Local Coordinators (part-time)
 -Philadelphia, Newark, NJ
 For more information, go to:

http://bit.ly/nfsateamjobs.



Send hi-rez photos to Joanne Genadio at genadio@nfsa.org

REGIONAL ROUNDUP

NEW ENGLAND REGION



DAVE LAFOND Regional Manager

CONNECTICUT MAINE MASSACHUSETTS NEW HAMPSHIRE, RHODE ISLAND, VERMONT

Massachusetts Board Removes Sprinkler Requirements for Certain Townhomes

A code change proposal that added the IRC fire sprinkler requirement (Proposal RB66-07/08) was submitted by a major multi-family builder, AvalonBay Communities. As a major builder of multi-family/ townhouse residential properties, Ava-IonBay Communities developed extensive experience with the installation of fire sprinkler systems in these residential properties and therefore concluded that sprinkler systems were in fact desirable and cost effective and should be required as a "standard" feature in all new townhouses.

The IRC provides a financial offset for the cost of fire sprinklers, by allowing townhouse separation walls to be onehour fire rated, rather that two-hour, which was the requirement before the IRC incorporated sprinkler requirements. This single incentive resulted in decreased total construction costs, when comparing the cost of a sprinklered townhouse to the cost of an unsprinklered townhouse with 2-hour separation walls.

The question beas to be asked of the Board of Building Regulations and Standards (BBRS); on what information did the BBRS make the decision to remove the fire sprinkler requirement for townhouses which are three-stories or less?

Following is the BBRS Chairperson, Richard Crowley's email. Please take a minute to contact him directly and voice your concern for this grave rollback of fire protection.

Richardpcrowley@aol.com **(0**

Dave LaFond NFSA's Regional Manager / New England

email: lafond@nfsa.org 2 Burns Way, Holyoke, MA 01040

phone: 413.244.7653

NEW YORK REGION



DOMINICK KASMAUSKAS

Regional Manager

NEW YORK

New York State Fire Chiefs Push for Sprinklers in New Homes

The New York State Association of Fire Chiefs is working to convince the New York Building Code Council to make it mandatory for builders to add sprinklers in newly built townhouses and residential homes.

The Association put on a side-by-side burn demo to show just how effective sprinklers are.

The demonstration, which was very well attended, showed there was no chance for survival in the room without a sprinkler.

They brought more than 1,200 signed letters to the New York Department of State, urging them to pass a code that would require new townhomes to have sprinkler systems installed.

Ideally, members of the Fire Association would like to see them in one- and two-family homes as well, but are focusing on the push for sprinklers in townhouses for now.

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



RAYMOND W. LONABAUGH Regional Manager

DELAWARE, MARYLAND, NEW JERSEY, PENNSYLVANIA, VIRGINIA, WASHINGTON D.C.

Maryland Delegate Files HB19 changing the Residential Fire Sprinkler Requirement

House Bill #19 was introduced by Maryland Delegate Chris Adams at the first reading on January 13, 2016. The bill, if passed into law, would allow local counties and incorporated municipalities to change their adoption of the International Residential Code fire sprinkler requirement for one- and two-family dwellings from a requirement to a choice by the home purchaser, whereas, the builder would have to honor the request of the buver.

Currently Maryland does not allow the counties and local incorporated municipalities the option of not adopting the residential fire sprinkler requirement. The mandatory fire sprinkler requirement is based on the combustibility of furnishings that are synthetic based, open floor concepts and lightweight engineered lumber construction.

HB19 has no impact on the mandatory residential fire sprinkler requirement for townhouses in Maryland.

Raymond W. Lonabaugh

NFSA's Regional Manager / Mid-Atlantic email: lonabaugh@nfsa.org P.O. Box 126, Ridley Park, PA, 19078 Phone: 610.521.4768

SOUTHEAST REGION



WAYNE WAGGONER Associate Director of Regional Operations - East

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

Mosheim, Tennessee, Fire **Department Recognized For Fire Prevention Efforts**

The Town of Mosheim, Tennessee Fire Department was recently presented with the 2014 Life Safety Achievement Award by the National Association of State Fire Marshals Fire Research and Education Foundation (NASFM), in partnership with Grinnell Mutual Reinsurance Company.

Assistant Fire Chief James Foshie said in a news release that the Town of Mosheim Fire Department presents fire

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REGIONAL ROUNDUP

CONTINUED FROM PAGE 53

safety, prevention and education programs to more than 800 students each year at Mosheim Elementary School. In addition to the school presentations, fire department members present programs to senior citizens in Mosheim, child day care centers and Telamon Migrant School.

Since 1994, the Life Safety Achievement Award has recognized local fire prevention efforts that have contributed to reducing the number of lives lost in residential fires.

The Town of Mosheim Fire Department is one of 97 fire departments across the U.S to receive the award this year for recording zero fire deaths in 2014, or reducing fire deaths by at least 10 percent during the year.

In addition, award recipients documented active and effective fire prevention programs as well as a clear commitment to reducing the number of house fires in the community.

Although residential fires in the U.S. account for only 20 percent of all fires, they result in 80 percent of all fire deaths. The National Association of State Fire Marshals Fire Research and Education Foundation is committed to reducing that number.

The NASFM Fire Research & Education Foundation is a public interest group with the mission of reducing residential fire deaths and injuries. The Foundation advocates the use of fire sprinklers.

Wayne Waggoner

NFSA's Associate Director of Regional Operations – East email: w.waggoner@comcast.net PO Box 9, Andersonville, TN 37705 Phone: 865.755.2956, Fax: 865.381.0597



FLORIDA & PUERTO RICO



LORRELL BUSH Regional Manager

FLORIDA, PUERTO RICO

2015 FFSA Highlights

This has been a very active and successful year for the Florida Fire Sprinkler Association! Below are some of the highlights from 2015:

- More than 575 Contractors, AHJ's and Industry Professionals participated in the 16 technical training classes offered throughout the state.
- Hawks Cay 2015 was attended by more than 159 Industry Professionals and included top notch speakers, vendor recognition and contractor participation, making it a week to remember!
- The 21st Annual Buddy Dewar Golf Classic SOLD OUT, turning away nearly 20 golfers due to an over-booked event. The event raised over \$38,000 which provided FREE training for over 350 AHJs throughout the state.
- 36 Area Interest Meetings (AIMs) were scheduled throughout the state resulting in an average of 275 attendees each quarter. The AIMs continue to be a success and have speakers booked through September of 2016.
- 29 Side by Side Fire Sprinkler Demonstrations were held throughout the state for more than 3,000 spectators.
- FFSA added 34 new members this year, 10 new contractor members, 23 new professional members and 1 new supplier and manufacturer member.
- FFSA participated in more than five conferences in the state of Florida this year including: South Florida Building Code Conference, Campus for Fire Safety, ICC Conference, FEDA Conference and FFMIA.
- FFSA worked with AHJs, NFPA and the State Fire Marshal's Office to form the Florida Fire Sprinkler Coalition.

- FFSA, in cooperation with Common Voices, developed "Voice of the Advocate" videos to share stories and faces of those who have been affected by fire and spread the importance of fire sprinklers.
- Very successful meeting on the Rule 61G15-32 revision issue with the Florida Board of Professional Engineers Rule Committee. Steve Kowkabany, FPE and Buddy Dewar worked with a group of individuals to recommend revised language to the standard which will save FFSA Contractors time and money.
- Buddy Dewar has been working with the Assisted Living Facility lawyers and senior staff in an effort to repeal subsection 429.41, F.S. that mandates the 1994 Edition of the LSC be used for assisted living facilities and instead reference the current edition adopted by the SFM. Buddy will continue to meet with the ALF powers to prepare for a meeting with a bill sponsor.
- Current law allows condo associations to opt out of sprinklering units but must sprinkler common areas. High-rise condos who opt out of fire sprinklering units must prepare an Engineered Life Safety System. The bill last year would have allowed opt-out of ELSS but bill died, however, it is expected to resurface next session.
- Two Declaratory Statement requests have been filed, Department of Business and Professional Regulation and the State Fire Marshal, that if concluded as requested would mean any licensed plumber could install a residential fire sprinkler system without any additional training. The SFM ruled in our favor and the DBPR is expected to follow. Florida established a contractor classification for NFPA 13D work in 1984 that requires plumbers to take additional training.

Lorrell Bush

NFSA's Regional Manager / Florida & Puerto Rico email: bush@nfsa.org 2025 Droylsden Lane, Eustis, FL 32726 Phone: 352.589.8402 Cell: 954.275.8487 Fax: 561.327.6366

GREAT LAKES REGION

TBA

Regional Manage

INDIANA, MICHIGAN, OHIO, WEST VIRGINIA, KENTUCKY

Sprinkler Save at Nursing Home in Leipsic, Ohio

The Leipsic, Ohio Fire Department says when firefighters arrived on the scene of a fire at the Meadows of Leipsic Nursing Home, they noticed heavy smoke coming from inside the building. They stated that the fire started in one room and credited the sprinkler system with preventing the fire from spreading past that room.

Two residents were sent to the hospital with smoke inhalation and were expected to survive. No other injuries were reported.

The fire was reported to the Ohio State Fire Marshall's Office.

ILLINOIS REGION



BOB TINUCCI State Coordinator

ILLINOIS

Northwest Illinois Regional Building Code - BIG WIN FOR SPRINKLERS!

The City of Rockford, Illinois has partnered with over 30 communities, spanning a nine county area in Northwest Illinois to develop a Regional Building Code. The City of Rockford was the lead agency to propose the building code updates adopting the 2015 IBC Codes; 2015 International Building Code (commercial structures) and 2015 International Residential Code (one- and two-family dwellings). Regional meetings were held over a period of several months. The updated codes were approved by Rockford City Council on November 2, 2015. This was the first step to adopt the new regional code. It is intended that all other regional partners will subsequently adopt the identical code. There was considerable opposition to residential fire sprinklers for one- and two-family structures due to limitations in the various rural water supplies. This requirement was amended out of the regional code. The partnership led an aggressive proposal to maintain fire sprinklers in all townhome construction and prevailed. This is due to significant efforts by the City of Rockford's Planner/Building Plans Examiner Andrew Pieri, and Fire Chief Derek Bergsten.

Overview of their Regional Code Approach

State law allows local units of government the ability to adopt and amend building and life-safety codes in order to insure the safe construction, addition and alteration of residential and commercial occupancies. These codes and ordinances, which vary from jurisdiction to jurisdiction, have long been a source of confusion for local designers, contractors and trades people due to differing code requirements and ordinances. It is for this the reason that the City of Rockford has asked all communities in a nine county area to participate in the development and implementation of a region-wide building code. This code will eliminate confusion by insuring that contractors and designers know exact code requirements and code amendments, no matter where in the county one chooses to work. A region wide code will also benefit local government by reducing the amount of code violations found on the job site and also reduce the need to educate contractors on the specific requirements of a particular community.

Northwest Illinois Regional Code Partners:

Winnebago County

City of Rockford

City of Loves Park

Winnebago County (Includes

- Unincorporated Winnebago County, Cherry Valley - Harrison -

Machesney Park - New Milford

- Rockton, Roscoe Seward
- Shirland -South Beloit)

Village of Durand

Village of Pecatonica

Village of Winnebago

DeKalb County

City of DeKalb

DeKalb County / City of Sycamore

City of Ogle County

City of Oregon

City of Byron

Stillman Valley

Davis Junction

City of Polo

City of Rochelle (Includes

- Creston - Steward)

Lee County

City of Dixon

Village of Ashton

Jo Daviess County

City of Galena

Whiteside County

Rock Falls

Village of Sterling **(0**

Bob Tinucci

NFSA's Regional Manager / Illinois email: tinucci@nfsa.org.

6401 Richmond Avenue, Willowbrook, IL 60527 phone/fax: 630.655.1875

cell: 630.514.1601

WISCONSIN REGION



MARTY KING
State Coordinato

WISCONSIN

Wisconsin Legislative Issues

Following are two recent legislative issues:

LRB 3130 and 3968- being sent to eliminate fire suppression from fairground facilities. The language in the sponsorship notice portrays fire sprinkler systems as costly and financially burdensome. This is extremely concerning in that DSPS was unaware of this legislation and the Building Code Committee had, over the past four months, reviewed the 2015 IBC and IEBC. They had no discussions regarding this issue, nor had they proposed any language addressing this issue.

LRB 3011 - being sent as a fix for some

REGIONAL ROUNDUP

CONTINUED FROM PAGE 55

landlord and tenant issues outlined to protect both. Within the bill is language to prevent the current 16 municipalities from enforcing existing ordinances relating to multi-family buildings. This language was part of the past budget bill and was removed. It is concerning that it is hidden within a bill that did not address any building or fire code changes.

While our legislative liaison team is working on addressing these issues with the legislative leaders, we need your assistance in contacting your state representatives in the Assembly and Senate to voice your concern. We need to stand up as an industry that not only provides fire and life safety, but is a business and employer within the State of Wisconsin.

Our position regarding 3130/3968 is that the Petition of Variance process within the Building Code addresses this issue and is best left to local officials to determine whether changes to the building code are appropriate and that the municipality has a voice in conditions placed to provide fire and life safety to the community.

Our position regarding 3011 is that the local municipalities should control protection of the structures and occupants. They chose to adopt additional requirements to protect the community based on available resources. While this will not affect new construction, it does affect existing structures. The example for the original legislation was a community's requirement to provide fire sprinklers to an apartment building that was gutted by fire and where there was a fire fatality.

Marty King

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

2016 ANNUAL SEMINAR AND BUSINESS & LEADERSHIP CONFERENCE

MAY 3-6, 2016 Dana Point, California



THERE'S STILL TIME TO REGISTER AT: WWW.NFSA.ORG

MINNESOTA REGION



TOM BRACE State Coordinator

MINNESOTA

Sprinklers Saved Industrial Building From Fire in Hastings, Minnesota

What could have been a major fire was prevented at DSM Excavating in Hastings, Minnesota.

Crews responded after the building's fire alarms activated. According to Fire and EMS Director Mike Schutt, smoke was visible on the south side of the building when firefighters arrived. The fire sprinkler system was already operating. Crews entered the building and found a dump truck on fire, which they extinguished.

According to Schutt, the fire could have been much worse, as there was other heavy equipment parked very close to the engulfed truck. Schutt credited the sprinkler system with saving the rest of the equipment and the building, which would have been a \$4 million loss.

Tom Brace

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

CENTRAL REGION

TBA

Regional Manager

IOWA, KANSAS, MISSOURI

Sprinkler Save at Iowa City, Iowa Lumber Facility

The lowa City Fire Department credited the fire sprinkler system with quickly bringing a fire under control at a lumber facility.

Firefighters responded to the reported fire and found multiple fire sprinklers had activated in a detached lumber storage building. According to a news release, the sprinklers had put out most of the fire, with small spot fires in the storage rack.

Fire crews put those out.

Investigators said the fire started in the area of a wood cutoff saw and determined the cause to be accidental. They estimate damage at \$15,000.

There were no injuries.

SOUTH CENTRAL REGION



CYNTHIA GIEDRAITIS
Regional Manager

ARKANSAS, LOUISIANA, OKLAHOMA, TEXAS

Face The Contractors

First Contractor and State Fire Marshal Round Table Meeting

Texas State Fire Marshal Director of Licensing Ernest McCloud and NFSA Director of Public Fire Protection Jason Webb "Faced The Contractors" at a first time Round Table Discussion of top issues on how to best coordinate the NFPA 25 Code with Texas Licensing Rules.

NFSA South Central Regional Manager Cindy Giedraitis engaged the two guest speakers in a lively roundtable discussion about current topics of interest to the fire sprinkler industry.

Face The Contractors first meeting was held on December 10, 2015 at the Hurst Justice Center in Hurst, Texas.

Discussion Topics included:

- NFPA 25 Codes Process
- Texas Licensing & Tagging Issues
- How to file a Contractor Complaint
- How to change the Licensing Rules

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



ERIC GLEASON Regional Manager

Colorado, Nebraska, North Dakota, South Dakota, Utah, Wyoming

Colorado Fire Suppression Adminstrative Rules Effective Now Highlights –

- Fitter license Register and print online (must carry with them)
- Contractor license Register and print online (Fire Suppression, Residential, Backflow, Underground)
- Apprentices must carry DOL registration (this may go away)
- CPVC Contractor/RME must prove \$1M of CPVC coverage if you install CPVC
- 1 fitter to 3 apprentices maximum must be in reasonable proximity

Colorado Fire Supression System Tagging began January 1, 2016.

Fire Suppression Administrative Rules now online –

 New State Administrative Rules require contractors to tag systems

White - New system installations

Green - Full passing NFPA 25 Inspection

Yellow - Deficiency found NFPA 25 Inspection

Red - System is impaired - Mandatory Reporting To AHJ - 24 hrs

Each jurisdiction can impose their own tag requirements

Notification of NFPA 25 inspections are compulsory to the local AHJ or State

Fire Departments may Opt Out -

- Please advise Great Plains Regional Manager Eric Gleason of any departments that opt out of the notifications
- Keep a data base of fire department contacts to email your reports to
- · Your tags should have consistent info

Eric Gleason

NFSA's Regional Manager / Great Plains email: gleason@nfsa.org P.O. Box 62157, Littleton, CO, 80162 phone: 720.470.4894

SOUTHWEST REGION



BRUCE LECAIR
Associate Director of Regional
Operations - WEST

CALIFORNIA, HAWAII, NEW MEXICO, NEVADA, ARIZONA

NFSA's Bruce Lecair appointed Principal NFPA Voting Member

NFPA announced in an e-mail on December 29th, 2015 that NFSA Regional Manager Bruce Lecair has been appointed as the Principal on the NFPA Technical Committee on Industrial, Storage, and Miscellaneous Occupancies (SAF-IND) representing the National Fire Sprinkler Association.

This appointment will allow Bruce to represent NFSA's mission of promoting the fire sprinkler concept on this important NFPA Committee. Bruce is also an alternate on the NFPA Technical Committee on Residential Occupancies.

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

Regional Sprinkler Saves Bend, Oregon

Fire sprinklers help keep the cost of medical care down in Bend. When firefighters responded to an early morning New

Year's Day alarm at a Bend radiology office, a quick search showed a fire that had started under a building's exterior overhang had been extinguished by a single fire sprinkler. "With the expensive imaging systems in CORA, this sprinkler activation prevented what could have been a very expensive fire," Deputy Fire Marshal Dan Derlacki said in a news release. The cause of the fire - which caused about \$100 damage - is believed to be an improperly disposed of cigarette

Portland, Oregon

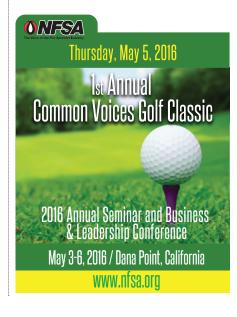
Fire sprinklers keep arson fires in check at a Portland high school. A 15-year-old boy has been arrested and faces serious charges for setting not one, but four fires at his high school. Three were set in the bathroom, one in a storage area. Fire sprinklers helped to limit the damage of all of the fires. Nobody was injured in the arson spree.

Walla Walla, Washington

A fire sprinkler system helped extinguish a fire at a Walla Walla farm and outdoor store A display heater caught fire after hours, causing isolated smoke and water damage. Fire sprinklers significantly limited the damage.

Suzanne Mayr

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



IT'S ONE OF THE FEW TIMES YOU WON'T MIND THE SMELL OF A WET DOG... WE PROMISE!

HOME FIRE SPRINKLERS—PROTECTING THOSE THAT CAN'T PROTECT THEMSELVES

DID YOU KNOW?

 More than 500,000 pets die in house fires each year.

 The loud noise of smoke detectors often scares pets and sends them into hiding.

 Many pets are left home alone and have no way to escape the fire, even with working smoke detectors.

 Firefighters who rescue pets are often ill-equipped to provide life-saving oxygen to the animals efficiently.

(statistics from Veterinary News Network)



PROTECT WHAT YOU VALUE MOST!

Learn more about home fire sprinklers at www.homefiresprinkler.org





SPRINKLING OF NEWS

■ NFPA Research Foundation – Suppression, Detection and Signaling Research and **Applications Symposium**

March 1-4, 2016

Doubletree by Hilton San Antonio Downtown, San Antonio, Texas

Featuring 30 presentations and a special workshop:

Big Data and Fire Protection Systems. Keep your knowledge at the leading edge through presentations including:

- Latest in sprinkler and other suppression research including warehouse sprinkler protection, applications, water mist, protection of li-on batteries, non-water based suppression
- Latest in detection and signaling research including residential applications, nuisance sources, smoke characteristics and detector design, smart building applications, signaling and notification

Free half-day workshop "Big Data and Fire Protection Systems" is open to all attendees! (Wednesday afternoon, March 2) This workshop is a "bridge event" between the Suppression and Detection sessions. All SupDet attendees are invited to attend the workshop!

REGISTER TODAY for the full symposium, or choose either the Suppression Program or the Detection Program. All registration options entitle you to attend the workshop Big Data and Fire Protection Systems.

For additional details and program visit: www.nfpa.org/supdet2016.

■ Reliable Enhances DryPaK and PrePak Systems

Reliable Automatic Sprinkler Co., Inc. has enhanced its popular DryPaK and PrePaK Systems by offering a new, larger size - 8" (200mm).

The New 8" DryPaK Systems utilize the DDX-LP Dry Pipe Valve, which is a hydraulically operated, differential-type valve for low pressure dry pipe valve systems. Available sizes range from 2" (50mm) through the new 8" (200mm).

The New 8" PrePaK Systems utilize the lightweight Model DDX Deluge with galvanized trim. Two options are offered. The Type D, which can be programmed either as an Electric Single Interlock or as an Electric/Electric Double Interlock Preaction System. Sizes include: 4" (100mm), 6" (150mm) and 8" (200mm). The Type F is an Electric/Pneumatic Double Interlock Preaction Systems. Sizes start from 2" (50mm) through 8" (200mm).

For additional information, please refer to Bulletins 748, 733, and 747 on Reliable's website - www.reliablesprinkler.com - or call your local Reliable sales office.

■ Reliable Introduces New Residential Dry Horizontal Sidewall Sprinkler

The F3Res44 Dry is a Dry Horizontal Sidewall sprinkler that is a cULus Listed Residential sprinkler for use in accordance with NFPA 13, NFPA 13R, or NFPA 13D. Providing coverage up to 16 feet by 20 feet (4.9m by 6.1m), the F3Res44 Dry has a K-Factor of 44 (63 metric).

This sprinkler is used where a wetpipe sprinkler system in a temperaturecontrolled space protects an adjacent space that is subject to freezing temperatures. The F3Res44 Dry uses a fast-response thermal element with an Ordinary 155°F (68°C) or Intermediate 175°F (79°C) temperature classification.

Installation options include: flush, recessed and extended. The F3Res44 Dry has a standard 1-inch NPT threaded inlet. Threaded inlet fittings in 3/4-inch NPT, ISO 7-R1, or ISO 7-R3/4 are also offered. The sprinkler can be ordered in lengths ranging from 4-1/4 inches (108mm) to 24 inches (610mm) in 1/4 inch (6.35mm) increments.

For more information, please refer to Bulletin 052 on Reliable's website - www. reliablesprinkler.com - or call your local Reliable sales office.

■ Phoenix World Burn Congress 2016 - October 19-22, 2016

The 28th Annual Phoenix World Burn Congress is coming to Providence, Rhode

Registration for the conference will be available online Spring, 2016.

CONFERENCE LOCATION:

Omni Providence Hotel 1 West Exchange Street Providence, Rhode Island 02903

Check for availability at our official hotel, the Omni Providence Hotel. We have negotiated a rate of \$175 per night, plus tax. Attendees may make reservations by calling 1-800-THE-OMNI (1-800-843-6664). and ask for the Phoenix Society room block once you call. For your convenience, you may also make reservations through a personal web link for the Omni Providence Hotel.

Although you may be solicited by other hotels, transportation and other services for Phoenix WBC are only provided via the Omni Providence Hotel.

■ Phoenix World Burn Congress Sensitivity Training

In preparation for the conference, we are requesting that city business owners, hotel staff, volunteers, and community members view a 20-minute presentation, Phoenix World Burn Congress Sensitivity Training, to assist us in welcoming our attendees to Providence. This presentation is designed to introduce the general public to the burn survivor community.

Be sure you join the Phoenix Society's mailing list for frequent email updates on Phoenix WBC and other Phoenix Society programs! You may also receive updates from the Phoenix Society via USPS mail by calling us at 1.800.888.2876.

For more information: http://www.phoenix-society.org/ wbc/location-registration





To Marty King:

Dear Mr. King:

The professional Fire Fighters of Wisconsin Charitable Foundation Alliance for Fire Safety is a non-profit organization with the mission, "To promote, encourage and foster fire safety, burn prevention and public fire safety education. We support burn survivors of all ages as well as sponsorship of the Summer Camp for Burn Injured Youth." In the spirit of that mission, the PFFWCF annually recognizes those in our state that exemplify what it means to promote fire safety. This year marks our 25th annual luncheon.

Our Awards Committee has been informed of your firefighting career effort to make the state of Wisconsin safer from the sad effects of fires. Your many years of working to make the West Allis community and the state of Wisconsin aware of fire dangers are commendable. Therefore, we wish to recognize you at our annual Fall Fire Safety Luncheon to be held October 6, 2015 at the Oak Creek Community Center, Oak Creek, Wisconsin. The lunch and program begin at noon. You will be recognized as our "Joe Vorce Career Fire Safety Award" recipient for your years of service.

Thank you again for your civic commitment to help make Wisconsin fire-safe!

Jenna Jordan
AFS PROGRAM DIRECTOR

To Dave LaFond:

Good Morning All,

I wanted to thank you all for your support with our side-by-side demonstration yesterday. From the reaction I received from convention attendees throughout the afternoon it was a huge success. We have already received requests from two communities whose elected officials asked if we could bring the whole program to them. Additionally I was asked by two attendees if the FMO could help them as they look at the possibility of sprinklering their homes. For the first time I don't think we could ask for much more. I have included a link to WABI TV5 from Bangor who provided us with some great coverage and recognition for the partners. Have a great and safe weekend. http://wabi.tv/2015/10/08/fire-prevention-through-demonstration/

With Best Regards,

Joseph E. Thomas

MAINE STATE FIRE MARSHAL

To Eric Gleason:

Happy Monday, Eric,

I just want to give you and the NFSA a heartfelt *THANK YOU* for helping North Metro pull of another successful live fire sprinkler demonstration in the City of Northglenn. We couldn't have done it without you! Slowly but surely, I really believe that we are making a difference in convincing the public of the benefits of fire sprinklers.

THANKS AGAIN!

Steven Gosselin
DIVISION CHIEF - FIRE PREVENTION
NORTH METRO FIRE RESCUE DISTRICT
BROOMFIELD. CO



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