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Building Height: 30' Storage Height: 25' Coverage: up to 196 sq ft (14' x 14')

K-14.0 ESFR	K-16.8 ESFR	K-25.2 ESFR	K-16.8 CMDA	Ultra K-17	N252 EC
100 sq. ft.	100 sq. ft.	100 sq. ft.	100 sq. ft.	100 sq. ft.	196 sq. ft.
50 psi	35 psi	15 psi-UL 20 psi-FM	22.7 psi (.80)	22 psi	30 psi
12 sprinklers	12 sprinklers	12 sprinklers	2000 sq. ft.	15 sprinklers (1500 sq. ft)	6 Sprinklers (3 sprinklers on 2 lines)
1200+ gpm	1200+ gpm	1200+ gpm-UL 1352+ gpm-FM	1600+ gpm	1200+ gpm	Sys. demand 828+ gpm
250 gpm HS	250 gpm HS	250 gpm HS	500 gpm HS	500 gpm HS	250 gpm HS

Building Height: 35' Storage Height: 30' Coverage: up to 144 sq ft (12' x 12')

K-14.0 ESFR	K-16.8 ESFR	K-25.2 ESFR	N252 EC
100 sq. ft.	100 sq. ft.	100 sq. ft.	144 sq. ft.
75 psi	52 psi	20 psi-UL 30 psi-FM	40 psi
12 sprinklers	12 sprinklers	12 sprinklers	8 sprinklers
1455+ gpm	1452+ gpm	1352+ gpm-UL 1656+ gpm-FM	Sys. demand 1275+ gpm
250 gpm HS	250 gpm HS	250 gpm HS	250 gpm HS

- Wet Pipe or Pre-action Systems (when they meet the equivalency of a wet system).
- Approved for Non-combustible Obstructed Construction.
- Refer to Reliable Bulletin 908 for more information.
- Refer to FM Global's Data Sheets 2-0 & 8-9 for installation and design of CMSA and extended coverage storage sprinklers.



## contents

July -August 2012 • no. 173

ON THE COVER:

Set among the palms and pools of the Hilton Los Cabos, this year's Golden
Sprinkler Award recipient Claude Chafin (right center) is joined by NFSA
Chairman of the Board Dennis Coleman (left), longtime friend Kevin Fee
(left center) and NFSA President Russell Fleming.



#### **ADVERTISERS**

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ARGCO	16
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General Air Products, Inc.	47, 49, 51
Harvel Plastics	22
Hydro Flow	50
Knox	18
Lubrizol	13
PHD Manufacturing	4
Reliable	IFC
Sprinkflex	6
System Sensor	ВС
Тусо	IBC
Viking Cornoration	2

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#### IN THIS ISSUE

#### **FEATURES**

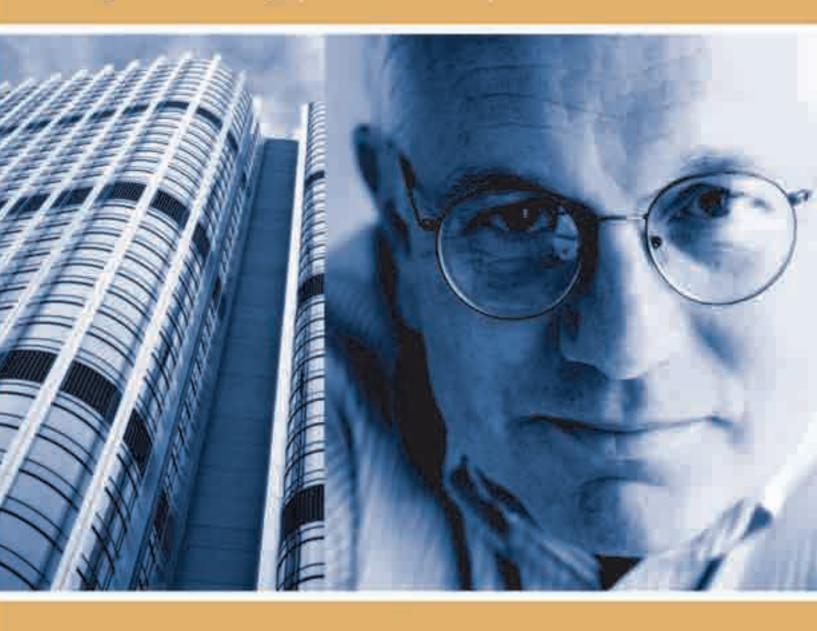
- 11 "I Saw a Sign That Said..." by Don Pamplin
- 29 2012 Annual Seminar Photo Essay
- 39 How the History of Residential Fire Sprinkers in Maryland Led to a Statewide Requirement by Ray Lonabaugh
- **44 Notes from the Fire Scene** by Vickie Pritchett

#### **DEPARTMENTS**

- **3** From the President's Desk by Russell P. Fleming, P.E. Lessons from Los Cabos
- 4 Calendar
- **7 From the Boardroom** by Dennis C. Coleman Considering NFSA's Annual Seminar
- 9 Contractor's Cue
- 15 Education by James D. Lake NFSA Training and Education Update
- **Technically Speaking** by Kenneth E. Isman, P.E. Top Ten Technical Trends
- **Code Corner** by Jeff Hugo, CBO Fire Sprinklers, Architects and the Building Codes
- 24 New Members
- **Membership** by Joanne Genadio NFSA Behind the Scenes - Meet the Accounting Staff
- 47 Regional Roundup
- 52 HQ News
- 54 People
- 55 Sprinkling of News
- 55 Letters



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### **Lessons from Los Cabos**



Russell P. Fleming, P.E.

hose of you who weren't able to join us in Los Cabos, Mexico, for the 2012 Annual Seminar missed a truly great event. The location was beautiful and the program outstanding. The speakers brought expertise and enthusiasm to the event in abundance, and both panel discussions (BIM and 3rd-Party ITM Administration) generated a high level of audience interaction. It was wonderful to see old friends like Jay Livingston, Bill Oliver and Joe Wiginton in attendance to help celebrate with Claude Chafin, the winner of this year's Golden Sprinkler Award. All in all, an outstanding success, and the general feelings of enthusiasm and good will bode well for the 2013 Annual Seminar in Las Vegas to be held April 4-6, 2013. With the participation of the Canadian Automatic Sprinkler Association (CASA) and the new sprinkler association formed in Mexico (AMRACI), the announcement of our first-ever NFSA Annual Seminar and North American Fire Sprinkler Expo™ is already generating a great deal of excitement.

Part of the renewed enthusiasm evident in our Association is no doubt the general feeling that the economy has turned a corner, and that business conditions are beginning to improve. But a return to prosperity will take time. The fire sprinkler industry traditionally lags the general construction market by about a year, and the construction industry is lagging the rest of the

economy in this recovery. The Wall Street Journal recently reported that while millions of new jobs have been created in the past two years, construction employment has barely rebounded at all, and remains almost 26% lower than in 2008.

Still, there are many reasons for confidence. The NFSA's success over the past fifty years in making the benefits of fire sprinkler protection known to code writers and design professionals means that the vast majority of what will be built will be sprinklered. Sprinklers are also finding their way into non-traditional applications – there are at least three major road tunnel projects under way in this country right now that will employ sprinklers. As change takes place in the economy, building uses also change, and use changes often bring about sprinkler system installations and improvements. In any event, as those in Los Cabos learned, business should continue to be "unbelievable," one way or another. ①

Russell P. Fleming, President

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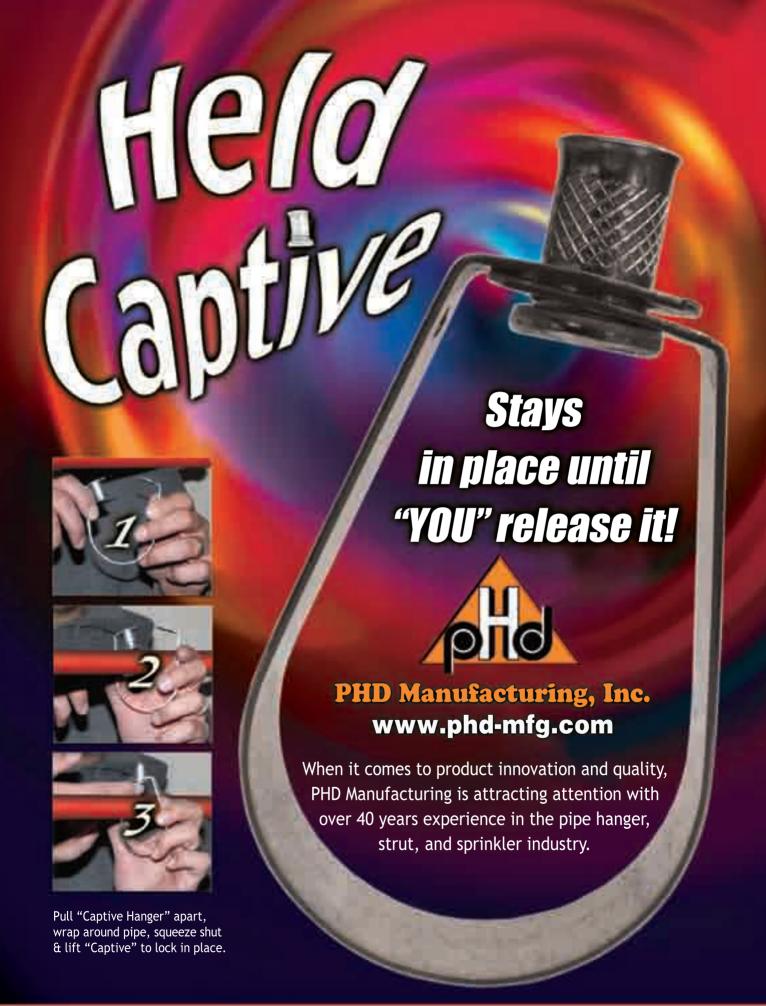
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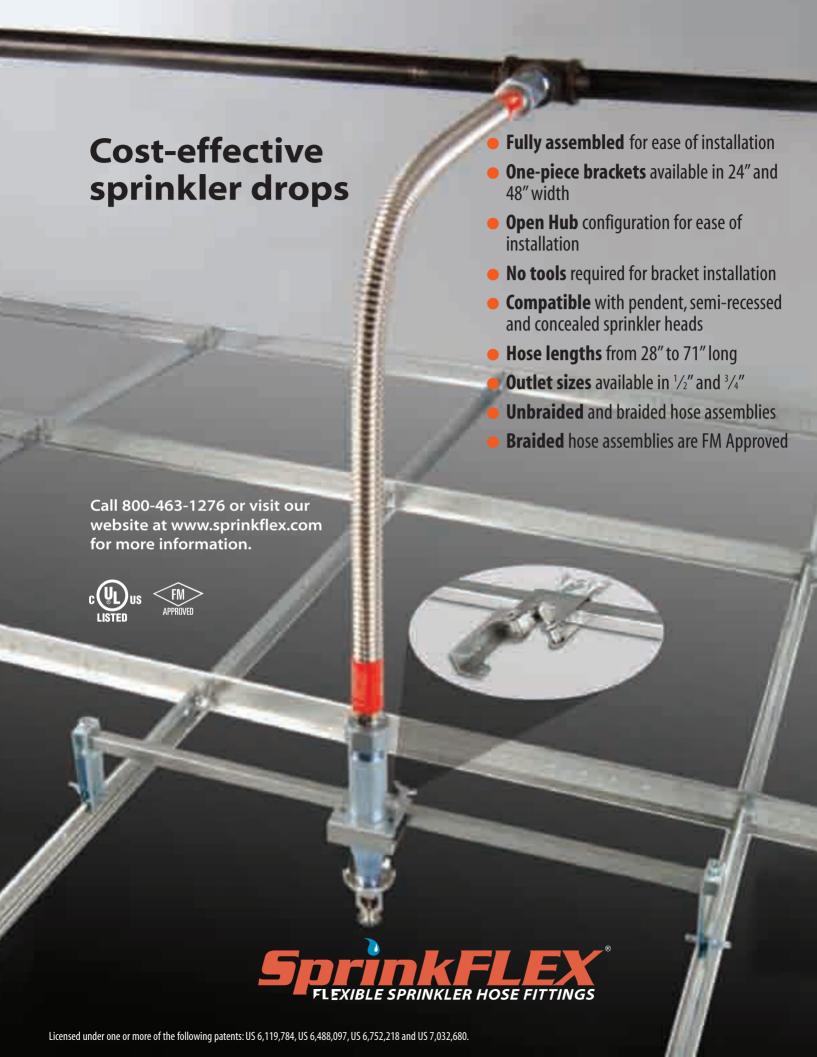
BOOKKEEPING: THERESA SCALONE

## calenda

July 10, 2012	Is That Really an Obstruction?	ONLINE
July 11, 2012	Inspection, Testing & Maintenance for the AHJ	West Palm Beach, FL
July 13, 2012	Inspection, Testing & Maintenance for the AHJ	Altamonte Sprgs, FL
July 24 2012	Protection of Vertical Spaces	ONLINE
July 24 2012	NFPA 13 Sprinkler System Installation Requirements	Westminster, CO
July 24 2012	Plan Review Procedures and Policies	Mashantucket, CT
July 25, 2012	Fire Service Mains & Their Appurtenances (Underground Piping)	Westminster, CO
July 26, 2012	NFPA 13, 13R & 13D 2010 Update	Westminster, CO
August 07, 2012	Protecting Multiple Buildings	ONLINE
August 08, 2012	Inspection, Testing & Maintenance for the AHJ	Indianapolis, IN
August 21, 2012	System Appurtenances	ONLINE
August 28, 2012	NFPA 13 Sprinkler System Installation Requirements	Colorado Springs, CO
August 29, 2012	Fire Service Mains & Their Appurtenances (Underground Piping)	Colorado Springs, CO
August 30, 2012	ITM for Water Based Fire Protection	Colorado Springs, CO
September 4, 2012	NFPA 13 Sprinkler System Installation Requirements	Pagosa Springs, CO
September 5, 2012	Fire Service Mains & Their Appurtenances (Underground Piping)	Pagosa Springs, CO
September 6, 2012	Inspection, Testing & Maintenance of Water Based Fire Protection Systems	Pagosa Springs, CO
September 11, 2012	Residential Sprinklers Homes to High-Rise (BOB 2007-150)	Dayton, OH
September 11, 2012	Piping & Valve Installation	ONLINE
September 11, 2012	NFPA 13 Sprinkler System Installation Requirements	Keystone, Colorado
September 12, 2012	Fire Pumps for Fire Protection (BOB 2007-136)	Dayton, OH
September 12, 2012	Fire Service Mains & Their Appurtenances (Underground Piping)	Keystone, Colorado
September 13, 2012	Hydraulics for Fire Protection (BOB 2007-139)	Dayton, OH
September 13, 2012	Standpipe Systems / Commissioning & Acceptance Testing	Keystone, Colorado
September 25, 2012	Plan Review Policies & Procedures	Hillsboro, OR
September 25, 2012	Concealed Spaces	ONLINE
September 26, 2012	Commissioning & Acceptance Testing/Underground Piping	Hillsboro, OR
September 26, 2012	Protection Of Flammable & Combustible Liquids & Fire Pump Layout & Sizing	Roseville, CA
September 27, 2012	Basic & Advanced Seismic Protection	Roseville, CA
October 8, 2012	Two-week Technician Training	Fishkill, NY

These seminars qualify for continuing education as required by NICET. Meet mandatory Continuing Education Requirements for Businesses and Authorities Having Jurisdiction. To register or for more information, contact: Michael Repko at (845) 878-4207, E-Mail: seminars@nfsa.org. Or register ONLINE at www.nfsa.org.





## **Considering NFSA's Annual Seminar**

Dennis C. Coleman



aving recently returned from the annual seminar held in Cabo San Lucas, Mexico, I have great things to report. The seminar location and hotel were fantastic. The setting on the beach was spectacular. The hotel was beautiful. The staff of the hotel was friendly, sincere, helpful, and competent. The food at the hotel was truly wonderful. The rooms were elegantly furnished, the pool was perfect, and the entire hotel experience was one of the best that I have ever enjoyed.

The seminar itself was well planned and executed. The speakers were well prepared and spoke about topics that were important to me as a contractor. There was an important "Think Tank" led by Jim Lake, our V.P. of Training and Communications. This involved everyone who had interest in making the NFSA better and more connected with its membership. It was an important discussion. The Opening Session included a "State of the Technology" presentation by our V.P. of Engineering, Ken Isman, and our new President, Russ Fleming, gave his first ever "State of the Industry". We gave the Golden Sprinkler Award to Mr. Claude Chafin, who was so deserving of the award because of his lifetime of contributions to the industry and especially to NFSA. We also listened to some great advice on "Next Generation Planning" by Doug Baumoel, and some sound advice on "Limiting Your Liability" by attorney George D. Bogris.

The next day included a very interesting discussion on "The New Business Model: Getting Work and Getting Paid". Mr. Russ Leavitt did a great job of giving us new ideas and unique approaches to getting business and collecting our money after the work is done. We had a panel discussion on BIM. It was obvious that these panelists were very experienced in the actual BIM design and coordination, and had stories that taught us what to watch out for and how to benefit from this fairly new aspect of construction. We had a panel on "3rd Party Administration"

of ITM." This was a spirited discussion that had advocates and detractors on both sides of the issue. The questions generated from the floor were very enlightening. All of the panelists were put to the test in defending their positions. The final speaker was Boaz Rauchwerger. He was hilarious as well as motivational. I wrote down many items for use in my own life from his entertaining presentation.

On a personal note, I took the opportunity of bringing four of my key people, and their spouses to the seminar. In addition to the two sessions described above, we had several meals together and enjoyed a sunset cruise on a sailing ship on a perfect evening. Everyone was extremely grateful for the trip and everyone thought the experience was a "once in a lifetime" opportunity. I believe it was money well spent from my perspective as a business owner.

In thinking back on the experience, I don't know what we could have done better. It was a great vacation and it was a learning experience. We met so many new people and we all learned from the seminar and our peers with whom we associated. There was only one weakness that I could point out. The attendance was below expectations. I believe that some people were afraid to come because of the fear of lawlessness or drug cartel activity. Another reason for the low attendance was the weak economy and the very competitive construction market that we are still experiencing. It was hard to get away and somewhat hard to justify doing anything that costs extra money when our profit margins are so thin. I understand.

With all of this in mind, I want to invite everyone in the sprinkler industry to next year's NFSA Annual Seminar and North American Fire Sprinkler Expo™ in Las Vegas, Nevada. I am hopeful that we will have record numbers. I invite you each to consider what next year's seminar and exhibition will offer you and your key

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Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont	Associate Director of Regional Operations - North Dominick G. Kasmauskas, NFSA 1436 Altamont Ave. Suite 147 Rotterdam, NY 12303 (914) 414-3337 FAX (518) 836-0210	Donald A. DeLuca SRI Fire Sprinkler Corporation 1060 Central Avenue Albany, New York 12205 (518) 459-2776 FAX (518) 459-0068
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Tennesee	Tennessee	Andersonville, Tennessee 37705 (865) 755-2956 FAX (865) 381-0597	Hendersonville, TN 37075 (615) 826-7450 FAX (615) 826-9680
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			Jack Thacker Allan Automatic Sprinkler Corporation 3233 Enterprise St. Brea, California 92821 (714) 993-9500 FAX (714) 993-5708
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## Dormitory Authority Contracts Wreck Havoc in New York

Editor's Note: Stuart Zisholtz comments on New York State Law

Once again, the contracts with the Dormitory Authority of the State of New York are causing havoc in the construction community.

Most public projects contain a clause in the contract pertaining to no damages for delays as well as an exculpatory clause directing the contractor to pursue other contractors who may have caused damages to the contractor.

As with most contracts, there is a duty on both sides to act fairly. Thus, if the project is delayed due to the actions or inactions of the municipality, the no damage for delay clause may not be enforceable. However, the contractor must prove that the municipal agency caused the delay by bad faith, willful, malicious or gross negligence; that the delays were uncontemplated; that the delays were so

unreasonable that they constituted an intentional abandonment; or that the delays were caused by the agency's breach of a fundamental obligation of the contract. Simple negligence or inept administration is insufficient to overcome the no damage for delay clause. You must establish gross negligence as opposed to simple ordinary negligence.

Many times a municipal agency will argue that the delays were caused by other contractors who were behind schedule or incapable of performing the work. Thus, even if there is a possibility that you can defeat the no damage for delay clause, the municipality will argue that the damages were sustained due to actions of other contractors. You will have to pursue claims against the various contractors and not the municipality.

In a recent decision against the Dormitory Authority of the State of New York, the Appellate Division, Second Department, dismissed a judgment in excess of \$10 million against the Dormitory Authority on the grounds that there was a no damage for delay clause in the contract

## CONTRACTOR'S CUE

and an exculpating clause. Worse, the Dormitory Authority was awarded liquidated damages of \$1,000 per day, totaling \$179,000.00 against the contractor and in favor of the Dormitory Authority for not completing the project in a timely fashion.

The key aspect to this decision is to know your contract and each and every term and condition that exist within it. The public contracts are ruthless and contain severe and harsh penalties.

#### Never let your lien time run out!

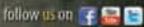
For a free copy of a pamphlet pertaining to payment bond claims and mechanic's liens, please contact Stuart Zisholtz at Zisholtz & Zisholtz, LLP, 170 Old Country Rd. Suite 300, Mineola, NY 11501 tel: 516.741.2200 fax: 516.746.1024 ①



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- MADEIN USA









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## "Build It and They Will Come But God Help You If You Build It Dumb"

he sign was on a bumper sticker on a car in the underground parking lot of a high-rise office building. I thought the sign was quite ironic given that there has been a huge push to build very tall buildings out of wood during the past five years and this 29-story concrete and steel office tower housed some of the most successful legal firms in the city that have outstanding litigation records of making people, companies and government pay extensively for doing dumb things!

Building things out of wood goes further back than the beginning of the construction industry itself and you only have to search Google™ and the internet to discover all of the interesting structures that designers and builders have created. The list is extensive and worth taking a look at. Some of the most significant are:

- The Metropol Parasol in Seville Spain which is currently the worlds largest wooden structure.
- The worlds tallest wooden home was a 144 foot, 13-story structure in Arkhangelsk, Russia that was condemned as a fire hazard in 2008 and dismantled in 2009
- The Hughes H-4 "Spruce Goose" (actually built mostly from birch) was the largest flying boat ever built with the largest wingspan of any aircraft in history (longer than a football field) and is surviving in good condition at the Ever-

- green Aviation Museum in McMinnville, Oregon, just south of Portland
- The tallest wooden residential building in the world was completed in 2009 in Hackney, London. It is a nine-story building that contains 29 apartments. The building uses Cross Laminated Timbers (CLT) in its design and construction.

In terms of the world's highest wooden building, Norway was determined to have that distinction with plans to build a 16-17 story wood high-rise (the Norwegian Barents Secretariat Building in Kirkenes, a small town on the Russian-Norwegian border) that will act as a model for sustainable wood buildings and carbon neutrality. Those building plans have currently been stalled.

And in Prince George, British Columbia, Canada, there are plans to build a ten-story high-rise that would be the tallest wood building in North America and maybe even the world if the Norway project doesn't get a new start. This Prince George building will be known as the "Wood Innovation and Design Center" that will feature ways to build high-rise structures (possibly as high as 30 stories) with new design criteria. Let me say that again... 30-story high-rises constructed out of wood! Just check out "The Case for Tall Wood Buildings" written by architect Michael Green that was released in February, 2012. This very daring and influential 240-page report, commissioned

by the Canadian Wood Council (CWC) on behalf of the Wood Enterprise Coalition (a partnership of Wood Works BC, FPinnovations and BC Wood Specialties) with support from Forestry Innovation Investment, poses the argument for tall wood buildings in the desire to find safe, carbonneutral and sustainable alternatives to concrete. To many environmentalists, the making of cement (the binding agent that makes sand and other aggregates into "concrete") is a filthy business. For every ton of cement produced, 1.25 tons of carbon dioxide is released into the atmosphere. They say that the total number of the world's cement plants are responsible for five percent of global CO<sup>2</sup> emissions.

The argument that tall wood buildings will have a significant impact on our environment is rapidly growing and the tenstory wooden high-rise in Prince George will showcase new and innovative ways of making new wooden products. Previous attempts to create sizeable wooden timber framing have foundered because no one could figure out how to join large pieces of timber together. Today, advocates of the Press-Lam System use flex-

>> CONTINUED ON PAGE 12



As an NFSA Leadership in Public Safety Award recipient, Don is recognized throughout North America as a fire sprinkler advocate.

Don Pamplin

>> CONTINUED FROM PAGE 11

ible steel couplings and imbedded wire ropes to lace laminated wooden beams and columns into light but immensely strong structures. A laminated wooden beam or column weighs about half a ton per cubic meter, which is about one-fifth the weight of its concrete equivalents. This lightness allows for the use of larger pre-fabricated sub-assemblies, much easier transportation of components, smaller cranes on site, and less expensive foundations on difficult sites. Using lighter wooden beams allows buildings to be designed with large internal spaces and fewer internal supports and best of all, Press-Lam buildings are potentially faster and less expensive to build than conventional steel and concrete designs. Does this sound somewhat familiar to the same story-line of the radical new design for the Twin Towers at the World Trade Center, where on September 11, 2001, 343 New York firefighters, police and other emergency responders and hundreds of unsuspecting civilians perished in that tragic, unforgettable incident?

#### **Strong Concerns**

Today, the North American Fire Service has a very strong concern about these developments. Firefighters, as well as building occupants, are dying in fires in singlefamily homes all across North America that use pre-fabricated lightweight construction products. The documentation of this is factual and certifiable in litigation procedures. The latest example is a residential home fire in Carmel, Putnam County in New York State on May 1, 2012. Carmel Fire Chief Bob Lipton was quick to blame lightweight construction where it took a mere ten minutes for the home to catch fire, collapse and kill four of the five people sleeping inside. Those ten minutes represent the average Total Intervention Time of all fire departments in North America. How can any fire department adequately protect its citizens when it is faced with this level of response and fire intervention time? Today, and rightly so, many fire chiefs and fireground incident commanders will not allow firefighters on the roof of these lightweight structures or allow firefighters inside to perform interior firefighting tactics if the residential structure is suspected of having lightweight construction, it has reached a point of flashover and the fire is out of control.

But here are some very interesting points that need to noted, remembered and used in the never-ending fight to protect people in all structures, especially wood-frame buildings.

The International Building Code (IBC) is the predominant US model building code having been adopted by most states with or without amendments. For most occupancy groups, increases in allowable height ( and number of stories) and floor area are permitted according to IBC Section 504.2 with the use of an approved automatic sprinkler system in accordance with the NFPA 13 Standard. In the Pacific Northwest (Washington, Oregon and Idaho), the model code has been amended to allow Type V residential buildings to have up to five stories of wood-frame construction. In Canada, the British Columbia Building Code was revised in 2009 to permit residential wood construction up to six stories providing the building has a full NFPA 13 sprinkler system installed.

The change in Canada was opposed by the British Columbia Fire Chiefs Association for a significant number of reasons. They lost-out to the stronger lobby influence of wood timber proponents. Those concerns of the BC Fire Chiefs will and should be the same concerns of every other Fire Chief and Fire Marshal throughout North America. Consider the following valid points that are raised in a September, 2008 letter sent to the British Columbia Ministry of Housing and Social Development from Stephen Gamble, CFO, MIFireE who was chair of the Fire Services Liason Group (to the BC Housing Ministry) and also was the President of the Fire Chiefs' Association of BC:

 A major concern for the Fire Service is the response capabilities of many fire departments in BC. Most fire departments do not have the training or resources to respond to a high rise fire incident. Additionally, outside of municipal boundaries, there is no mandatory requirements for building inspections, so many small and rural fire departments end-up responding to an incident where they may not have conducted a pre-fire plan nor have they been consulted with as to whether they have the capability to mitigate the incident;

- Is there adequate fire department access to the site;
- Are there any occupancy classification limitations/restrictions (e.g. 6 story assisted living facilities);
- Does the BC Building Code High Building Requirements apply;
- What are the increased occupant load impacts on evacuations;
- Will there be a limited use of vinyl siding and other combustible materials used on the exterior of the buildings;
- Will the passive and active fire protection system be increased;
- How will emergency power be addressed;
- Will consideration be given to increase fire resistance of corridors and stairwells;
- Will the jurisdiction where the building is built have adequate water supplies;
- · Will fire pumps be required;
- What effect will pre-engineered wood assemblies have on structural integrity in a fire. Will they be fire and load tested? Will the Fire service have to change their current practices for this type of structure;
- What are the impacts to existing neighboring structures in the case of a fire in a wood frame structure still under construction;
- Will there be a standard grade of height measurement? What are the impacts to height measurement standards if wood frame stories are built over concrete stories;
- Will alternative solutions or performance design be allowed under "objective-based codes";
- Who will be responsible for the costs of firefighter training, materials and resources;
- · If changes are made to allow higher

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wood frame buildings, will the insurance industry raise rates to property owners for increased risk:

- Will there be consideration made in the code to the capability of the local/responding fire department;
- What methods/assurances will be made to ensure protection for openings and penetration of fire-rated membranes during initial construction and later when the building is occupied;
- How will the Building Code address the issue of a 5 to 6 story building becoming 7 & 8

Story buildings (over above ground non-combustible parking garages and the addition of lofts):

In addition, the letter rightly identified a huge problem for local governments, the ability to mandate and implement sprinkler bylaws (ordinances) in their local jurisdictions that would go beyond the requirements of the provincial (state) building code but would be absolutely essential to assist the local fire department, based on their limited resources and properly trained personnel, to be able to properly mitigate a fire in one of the wooden highrises and protect the people living in those buildings who don't realize the enormous risk they are faced with.

And one more thought. Consider a fire that recently took place on May 14, 2012 in Roubaix, Northern France in an 18-story, 180-foot high-rise concrete and steel apartment building that killed one person and seriously injured 10 more. The fire broke out at 2:45 p.m. on the second floor and spread upward, reaching the top of the building on one side. On that side, a number of balconies had collapsed from the building (I counted 19 in an internet picture). Over one hundred firefighters responded to this fire and it took over two hours before the building was fully evacuated. There are no requirements in France to fit fire sprinklers in high-rise residential buildings and for commercial buildings, fire sprinklers are only required for buildings higher than 65 stories!

How dumb can government be? The people in that Roubaix Fire were ex-

tremely lucky as the death toll could have been significantly higher. What hope would they have in a 65-story commercial building with no fire sprinkler protection at all? And even more questionable, what hope would you have in a 30-story wood high rise fire here in North America that may or may not have an adequate fire sprinkler system to protect it or is being properly inspected and maintained to the criteria of NFPA 25? How does a volunteer fire department (or even many fully paid fire departments) do all of this on very limited budgets with not enough staff that are properly trained in all aspects of high rise firefighting and inspections?

If you build it dumb, make sure everything you own is in your wife's name and you can trust her!  $\odot$ 



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## TECHNICAL TUESDAY 2012 ONLINE





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Seminars will take place on the Internet on Tuesdays: 10:30AM Eastern/ 9:30AM Central/ 8:30AM Mountain/ 7:30AM Pacific/ 2:30PM Greenwich

#### ■ INSTALLATION RULES MINI-SERIES

The criteria for installing sprinkler systems go well beyond where the sprinklers are physically located. The following six lessons of this online series will present the installation rules for system components including piping, valves and trim devices. Some special situations such as concealed spaces and vertical shafts will also be covered.

#### **JULY 10, 2012**

#### Is that really an obstruction? -

Intermediate - James D. Lake

The rules governing clearance between sprinklers and partitions, library stacks and structural components are intended to provide sufficient distance for the sprinkler spray pattern to develop and deliver water over the floor area it covers. These rules vary by sprinkler type and the kind of obstruction. This seminar will explore the rules governing clearance to sprinklers and demonstrate the impact of the rules on actual sprinkler spray patterns.

#### **JULY 24, 2012**

#### **Protection of Vertical Spaces**

Basic/Intermediate - Karl Wiegand, E.I.T.

Many buildings have features that take up little floor area but would have significant impact on a fire due to their vertical alignment. Examples of these spaces are vertical shafts, stairways, and elevator hoistways. This seminar will discuss how those types of areas need to be protected, including where sprinklers are permitted to be omitted. In addition, how to handle vertical openings in a structure will be examined.

#### **AUGUST 7, 2012**

#### **Protectina Multiple Buildinas**

Basic - Kenneth E. Isman, P.E.

This seminar will focus on answering two questions that are frequently asked through our "Expert of the Day" program. The first question is, "Can you protect multiple buildings with a single water supply (including a single tank and pump)?" The second question is, "Can you protect multiple buildings with a single sprinkler system?" The answers to both of the questions will depend on a number of variables, which will be explored in depth during the program.

#### **AUGUST 21, 2012**

#### **System Appurtenances**

Basic - Jeff Hugo, CBO

There are many devices that are used in sprinkler systems beyond sprinklers and piping. Alarm connections, relief valves, and gauges are examples of these devices that assist in proper functioning of the sprinkler system. Drains, inspector's test connections, and air release valves are examples of these components that help to maintain the system over its lifetime. These parts will all be discussed including when they are required and where they fit into the system.

#### **SEPTEMBER 11. 2012**

#### **Piping and Valve Installation**

Basic - Kevin J. Kellv. P.E.

Pipe and valves are key components of any sprinkler system. They need to be installed correctly and with consideration of how they will be used over the life of the system, which includes the ability to perform maintenance. The detailed locations and trim for valves, including control valves, check valves, and pressure-reducing valves, will be discussed in this seminar. The protection of system piping will also be reviewed.

#### **SEPTEMBER 25, 2012**

#### **Concealed Spaces**

Intermediate - James D. Lake

NFPA 13 requires sprinklers to be installed throughout the entire building...except...where they are specifically permitted to be omitted. One of the locations where sprinklers can be omitted is in concealed spaces. With very specific language, Section 8.15.1.2 of NFPA 13 (2010 Edition) provides the requirements that concealed spaces must meet in order omit sprinklers. Some of these are straight forward, others are more detailed. This seminar will explore the details and provide insight into the background of the requirements that permit sprinklers to be omitted from these special spaces.

#### **■ STORAGE PROTECTION MINI-SERIES**

There are many intricacies involved in protecting storage arrangements. This mini-series will cover classification of commodities, in-rack sprinkler systems, and walkways, as well as tips for systems in storage areas.

#### **OCTOBER 9, 2012**

**Storage Configuration and Classification** Basic - Kevin Kelly, P.E.

#### **OCTOBER 23, 2012**

#### **Walkways and Catwalks**

Intermediate - Karl Wiegand, E.I.T.

#### **NOVEMBER 6, 2012**

#### In-Rack Sprinkler Spacing and Location

Intermediate - John Corso and Victoria B. Valentine, P.E.

#### **NOVEMBER 20, 2012**

#### Hydraulic Calculation of In-Rack Sprinklers

Intermediate - Kenneth E. Isman, P.E.

#### **DECEMBER 4. 2012**

Hanging and Bracing of In-Rack Sprinkler Systems Intermediate/Advanced - TBD

#### **DECEMBER 18, 2012**

Tips for Better Storage Protection

Basic - Karl Wiegand, E.I.T.

### NFSA Training and Education Update

By James D. Lake



slowing down any time soon. Through the end of April there have been effectively 16 business weeks and NFSA has conducted 46 training events both in-class and on-line through NFSA.tv and reached over 1200 participants.

Let's take a closer look behind those numbers. First, our In-Class seminars, which are offered in two ways; as openregistration seminars or as contract seminars.

#### **In-Class Open Registration Seminars**

So far in 2012 we have provided 24 open registration seminars which include seminars such as ITM for the AHJ, ITM for the AHJ (California Edition), our 3-day IT for the Sprinkler Industry, Basic and Advanced Hydraulics, Basic and Advanced Seismic, Pumps for Fire Protection, our new NFPA 13 Installation Rules (Chapter 8), NFPA 13 Update and our 2-week NICET Technician Training Course as well as many more as listed in the NFSA Training Catalog.

#### **In-Class Contract Seminars**

NFSA has conducted 13 seminars through contract with clients for the delivery of our standard in-class seminars or for the development and delivery of specific seminars to meet the needs of the client. In the first four months NFSA has developed and delivered contract seminars for the Canadian Automatic Sprinkler Association (various locations), the Florida Fire Sprinkler Association-a Chapter of NFSA (various locations), the Alabama Fire Sprinkler Association, The Tualatin Valley (Oregon) Fire District, University of Binghamton (NY), Olive View Medical Center (CA), and the Centre Region Code Administration (PA) and the Washington State Patrol.

These seminars have included ITM for the AHJ, ITM for the AHJ (California Edition), IT for the Sprinkler Industry, Basic and Advanced Hydraulics, Basic and Advanced Seismic Protection, Pumps for Fire Protection and NFPA 13 Installation Rules (Chapter 8).

Next, our on-line offerings, which are provided through our training and informational portal NFSA.tv.

#### **On-Line Seminars**

On-Line training through the use of NFSA. tv has delivered 8 TechTuesday seminars (2 per month) as scheduled. Additionally, the Engineering Department developed and delivered a 9-week curriculum course on Hydraulics for Fire Protection that was very successful. Look for more curriculum offerings from NFSA in the second half of 2012.

On-line seminars will continue to be the focus of NFSA as we grow NFSA.tv offerings. The challenges here come mainly from time commitments for development and delivery as these classes are all new and

current and a new seminar is developed for each session. During the coming months we will be focusing on taking some of our more popular In-Class seminars and turning them into on-line curriculum courses.

#### **New Seminars and Revision of Seminars**

At NFSA we are committed to the ongoing effort of maintaining an up-to-date catalog of training opportunities. This is no small task, did you know that for every one-day training seminar there is at least 7 days of development and review time involved? Along with our new seminar on NFPA 13 Installation Rules, which focuses on Chapter 8, we have also revised our Underground Piping seminar and added new material on Fire Service Mains. This was a priority for seminars that have been requested for certification of contractors in Colorado.

#### **Digitizing Educational Materials**

This effort began in January and continues as we review all of our NFSA promo-

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Vice President of Training and Communications

James D. Lake



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tional and educational materials including textbooks, handbooks and FYIs that are currently published only in hardcopy and determine how they can best be published digitally for purchase and use as I-books or Kindle™ publications. FYIs will also be considered as not only web-downloadable documents but also as NFSA.tv spots.

#### Interdepartmental Work

No other effort of NFSA requires interdepartmental cooperation like training and education does. Regional Operations plays a key role in identifying training needs and scheduling seminars as well as providing on-site administrative assistance during the seminar. Membership and Communications provides the notification and develops promotional materials, Internet Services provides the technical production expertise for all NFSA.tv seminars, and Engineering provides not only trainers and seminars but is also relied on for review of information.

So you can see that behind these training and educational efforts there is a completely committed staff developing and delivering seminars that support the mission of NFSA.



### TECHNICALLY SPEAKING

### **Top Ten Technical Trends**

By Kenneth E. Isman, P.E.

he following is an excerpt from my speech at the NFSA Annual Seminar in May of 2012 where I was asked to address the State of the Technology. As a focus for the address, I chose to look at ten trends that are coming through the codes and standards that have some effect on our industry. Since the attendance at the conference was highly weighted towards top management, these items are those that I believe have the largest strategic impact on the way we do business, not necessarily the biggest technical issues. The top ten technical trends, from a strategic

#### 1. Pump Costs are Going Up

perspective are:

There are three changes proposed for the 2013 edition of NFPA 20 that will significantly impact the cost of fire pump installations. The first is that all new diesel driven fire pumps are going to be required to have a fuel maintenance system installed in the diesel tanks. This change was put through with very little substantiation and the NFSA is not aware of specific problems with diesel fuel. While there are concerns over the use of biodiesel due to its unknown shelf life, NFPA 20 already warns the user not to use biodiesel, so it should not be an issue. If diesel driven fire pumps are started every week and run for 30 minutes, as required by NFPA 25, the fuel should not sit long enough to require any special conditioning. The NFSA staff has been asked by the NFSA Engineering

and Standards (E&S) Committee to try and convince the NFPA membership to overturn the committee on this issue.

The second change that is proposed in NFPA 20 that will increase our costs is a change to the way that Limited Service Controllers are designed. For those of you that watched this issue last cycle, the committee tried to get rid of Limited Service Controllers, but the NFPA membership wanted to keep them. This cycle, the committee is trying a new tactic of keeping the Limited Service Controller, but reguiring a different type of circuit breaker (the same type required for other fire pump controllers). This change will make a Limited Service Controller the same as any other type of controller except for the isolation switch, which will continue to be permitted to be omitted on Limited Service Controllers. This will increase the cost of Limited Service Controllers to the point where we probably will not use them much in the future. While the NFSA did not chose to challenge the committee on this subject, other members of the NFPA have and will be making motions at the NFPA meeting to overturn the committee on this issue

The third change that is proposed in NFPA 20 that will increase our costs is that pumps in series must be in the same pump room except for situations where positive pressure to the second pump can be achieved without the first pump running. This will increase the costs of some installations where vertical staging of fire pump used to be permitted. The NFSA

E&S Committee has directed the staff to try and convince the NFPA membership to overturn the committee on this issue.

While each of these three items will be addressed at the NFPA meeting in June, and it is possible that the NFPA committee might be overturned, such an outcome is not likely and the issues raised here will continue to be a concern, so sprinkler contractors using fire pumps should be aware that these issues are likely to drive up pump costs in the future.

#### 2. Definition of a Sprinkler System

You would think that after more than 130 years of having fire sprinkler systems, we would be pretty settled on a definition of a "sprinkler system" by now. But that's not actually the case. There has always been this question about multi-story buildings where a separate control valve, alarm and drain is installed on each floor. Is this one sprinkler system for the building, or is each floor a different sprinkler system?

The 2013 edition of NFPA 13 will answer this question definitively by stating that

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Vice President, Engineering for NFSA. Ken represents NFSA on the NFPA Technical Committee on Sprinkler System Discharge Criteria

Kenneth E. Isman, P.E.

each separate alarm, control valve, and drain constitutes a separate sprinkler system. Therefore, a multi-story building with separate alarms, control valves and drains on each floor will be considered a separate sprinkler system.

Another change to the 2013 edition will compound this issue. In order to better correlate with NFPA 72, which requires waterflow alarm annunciation on each floor, NFPA 13 will require a floor control assembly (control valve, check valve, alarm and drain) for all situations over two stories unless the total area of all floors added together is less than 52,000 sq ft for light and ordinary hazard occupancies or 40,000 sq ft for extra hazard or highpiled storage. This will increase the number of separate floors that are protected by their own "system" using the definition of a system previously discussed.

Together, these requirements will have far reaching ramifications, especially when it comes to inspection, testing and maintenance of a "system". Items that only need to be done once per system,

like internal inspections, will now have to be done once per floor since each floor within the building will be considered a separate system.

#### 3. Water Supply Safety Factor

In the 2007 (and previous) editions of NFPA 13 and NFPA 24, an adjustment to flow test data for daily and seasonal fluctuations was required before you could use the results to compare to the demand of a fire protection system. In 2010, the issue started to change with NFPA 13 moving the requirement to the annex as a suggestion, while NFPA 24 maintained the requirement in the body of the standard.

For the 2013 edition of both standards, the issue will be moved to the annex as a suggestion. Most good contractors will continue to make an adjustment to the data because they know from a liability perspective that fires don't always occur during the time of day and time of year that a flow test was conducted. But authorities having jurisdiction no longer

have hard language in the standard that they can point to in order to make sure that unscrupulous contractors do the right thing.

In a competitive environment where good contractors need to compete with unscrupulous contractors and the lowest bidder wins, this brings up a serious quality control concern. Who will be making sure that adequate adjustments are made to water flow tests before the comparison is made to the fire protection system demand. Who is going to ensure the proper safety factor?

#### 4. CPVC Compatibility

The 2013 editions of NFPA 13 and NFPA 13R will directly address the requirements for compatibility of CPVC pipe with items that it might come into contact with. For example, a new section 6.3.6.2 is proposed to read, "When CPVC pipe is used in combination systems utilizing steel piping internally coated with corrosion inhibitors and CPVC piping, the steel pipe coating shall be investigated for compatibility with CPVC by a testing laboratory." There are nine other similar sections covering both CPVC pipe and fittings.

One of the proposed sections that is causing controversy is section 6.3.6.6, which reads, "Other construction materials such as paint, electrical and communication wiring, thread sealants, gasket lubricant shall not come in contact with CPVC unless they have been evaluated as compatible with CPVC materials by a testing laboratory." This section is concerning because the phrase "other construction materials" is vague and undefined and could be construed to mean every item that ever might be on a jobsite. Clearly it is impossible for every material to be evaluated for compatibility with CPVC pipe. The NFSA E&S Committee has directed staff to try and convince the NFPA membership to remove this concept from the standard (not the rest of the CPVC compatibility issues, just the sections on "other construction materials").

A second concern over the CPVC language is that it focuses on CPVC pipe only. The manufacturers of CPVC pipe are concerned that they are being unfairly

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singled out when all non-metallic pipe has the same type of concern. Unfortunately, there is no way in the regular NFPA process to change the language at this point. However, the NFPA does allow emergency changes through a process called a Tentative Interim Amendment (TIA). The NFSA staff has proposed a TIA on this issue to change "CPVC" to "non-metallic pipe" so that it does not disenfranchise the manufacturers of one product when similar products need to be evaluated as well. The NFPA will process the TIA at the same time as the standard and the language in the 2013 edition will include the TIA if it is successful.

#### 5. Antifreeze

A great deal has been written about antifreeze lately. The situation continues to evolve. Before discussing what is new, it is probably a good idea to put the issue in perspective with a little history. Propylene glycol and glycerin have been used with good experience for at least 60 years as antifreeze solutions for fire protection systems. For the first 40 years of use, these antifreeze systems were limited to small systems, mostly in attics and loading docks. About 20 years ago, they got more popular for protecting larger systems throughout entire buildings including residential systems in multi-family apartments and single family homes and storage systems where ESFR sprinklers were being used to protect cold storage.

Pure propylene glycol and glycerin are combustible liquids with flash points between 210°F and 350°F. For comparison, canola oil has a flash point of 620°F, meaning that it is easier to get pure propylene glycol and glycerin to burn than canola oil. We had always been led to believe (by the manufacturers of the antifreeze) that mixing these materials with water would render the solution inert and not a problem for fire protection.

The first indication that there might be a problem with propylene glycol or glycerin came from SP Labs in Sweden. In 2000, they conducted tests using fine spray nozzles and reported that antifreeze could add to the heat release rate of a fire. That same year, Viking achieved a special listing for their ESFR sprinkler with 50% propylene glycol. Considering the suppression orientation for the ESFR sprinkler, this seemed to contradict the SP Labs findings.

As questions continued to be asked, Viking conducted fire tests in 2001 with residential sprinklers and 50% propylene glycol solutions. The antifreeze solutions passed the UL 1626 residential sprinkler fire test, which is an extremely challenging, shielded scenario fire test. During the preparation of the 2002 edition of NFPA 13, all of this data was analyzed and minor changes were made to cut high concentration solutions out of the standard, but antifreeze continued to be permitted.

In 2001, an incident occurred in a New Jersey restaurant where a heater on a patio caused a sprinkler to open. A fluid that is believed to be 100% antifreeze discharged on the heater and started to burn. While the incident was less than ideal, it still did not signify that there was a problem with antifreeze solutions since the antifreeze appears not to have been mixed with water.

A more significant event occurred in 2009 in Truckee, CA with a fire in a kitchen (food on the stove) on the first floor of a multi-story apartment building. Once the sprinkler opened, a flash fire appears to have occurred, causing some damage. The design of the sprinkler system was reported to be 50% glycerin, but there is some evidence that the system may have been 70% glycerin at the time of the fire. It is not clear if a 70% solution was installed or if the solution started out as 50% and then separated with the heavier glycerin settling at the bottom of the system.

Another significant event occurred in Herriman, UT in June 2010. This was also an apartment fire that started on a couch in a living room. Once again, when the sprinkler opened, a flash fire appeared to occur. The design of system was reported to be 60% glycerin. Following the discharge of the antifreeze, the sprinkler system controlled the fire extremely well, but there were still significant injuries from the initial flash fire.

Following the fire in Truckee, CA, the practices of sprinkler contractors were examined in the way that they were mixing antifreeze solutions. It was determined

that many of the common practices were not sufficient enough to mix the antifreeze with water to form a homogeneous solution. It was determined that manufacturers could mix the solutions at their facilities with sufficient quality control to make sure that the antifreeze would not separate from the water.

Also prior to the Herriman, UT fire, fire tests were conducted at UL during the Spring of 2010 to try and duplicate the Truckee flash fire situation with high pressure and small orifice sprinklers. UL reached the conclusion that there are a number of variables involved, but with 70% glycerin, and 60% propylene glycol, it is possible to cause a flash fire. UL was not able to get 50% propylene glycol or glycerin to cause a flash fire and found that these solutions reacted similar to water in their tests. These tests are known as the "Phase 1 Tests" or the "UL Tests" when they are discussed.

Following the UL tests, the Fire Protection Research Foundation (FPRF) through a contract with Codes Consultants Incorporated (CCI), performed more fire tests in July 2010. They tested a variety of antifreeze solutions with a variety of residential sprinklers at a variety of pressures using very large fires (1.4MW) that could never be suppressed by plain water. These tests (called the Phase 2 Tests) came to the following conclusions:

- Propylene glycol at 50% can (in some circumstances) contribute to the heat release rate of a fire
- Propylene glycol at 40% acts much like water
- Glycerine at 55% can (in some circumstances) contribute to the heat release rate of a fire
- Glycerine at 50% acts much like water

Based on all of the information known up until this time, the NFPA issued TIA's on NFPA 13, NFPA 13R, and NFPA 13D in March 2011 to deal with new requirements for new antifreeze systems as follows:

- Allow propylene glycol up to 38%
- Allow glycerin up to 48%
- Allow solutions higher than what is above if specially listed (Viking ESFR)

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 Allow other antifreeze products if specially listed

· Must use premixed solution

However, the Phase 1 and Phase 2 tests were only conducted with residential sprinklers. Questions still remained regarding the use of standard spray sprinklers. The FPRF conducted another series of tests (called the Phase 3 Tests) with standard spray sprinklers and issued a draft report in March 2012. The Phase 3 tests were conducted with a variety of standard spray sprinklers in a manner very similar to the Phase 2 tests, but a larger fire (3MW) was added for a variety of reasons. In these tests, even 40% glycerine increased the heat release rate of the fire.

Given these latest results, the committees responsible for NFPA 13, NFPA 13D, NFPA 13R, and NFPA 25 are reconsidering their position on antifreeze systems. It is likely that these committees will have different positions for new and existing systems. What seems most likely is a ban on new systems using propylene glycol and glycerin for NFPA 13 and NFPA 13R systems. Noncombustible fluids might be possible to use in the future, but they will need to be listed to make sure that they are not combustible and to insure that they do not have any negative reactions with internal components of sprinkler systems. For NFPA 13D systems, some limited use of low concentration propylene glycol or glycerin might be permitted if the solution is limited to the portion of the system exposed to cold temperatures.

Existing systems are going to be difficult to deal with. On one hand, we need to deal with the fact that propylene glycol and glycerin can contribute to the heat release rate of a fire in certain conditions. On the other hand, we need to recognize that these systems save lives and property and cannot be easily converted into other types of systems. If we take the antifreeze out of them and they are taken out of service, will a person die in a fire that could have been saved by the system? Some sort of risk analysis will need to be done to figure out which way the public is better protected. Whether that risk analysis is done for each building on a case-by-case basis or by the committee for the systems

covered by their standards remains to be seen.

#### 6. Relocation of Sprinklers

For many years, NFPA 13 has required the use of new sprinklers for installation in systems. But this requirement has really been applicable to total system installations. The Sprinkler System Installation Criteria Committee does not want the possibility of a "bank" of used sprinklers being recycled from building to building with sprinklers used in different environments and questionable care of the sprinkler when it is out of the system.

But this rule was never intended to be applied to the situation where a sprinkler needed to be removed from a system for a few minutes. Standard industry practice has been to allow sprinklers to be removed from systems when they were going to be reinstalled the same day as long as the fitter was careful not to damage the sprinkler during removal, storage, or re-installation and as long as the sprinkler was not exposed to high temperatures when it was out of the system. This standard practice occurred during times when systems were being filled and sprinklers were removed from a remote location to let the air out, when antifreeze solution was being checked at remote points in big systems, when sprinklers were being relocated within a room, and when internal inspections were being conducted in accordance with NFPA 25.

But NFPA 25 will be revised for the 2013 edition to state that whenever a sprinkler is removed for any reason, a new sprinkler needs to be installed in its place. Not only will this mean that fitters going out to do maintenance will need to take spare sprinklers with them (of the kind the client has in their building), but this will also cause us to re-examine the procedures we use for filling systems and conducting maintenance. Where we used to remove sprinklers to let the air out of systems, we might want to install air release mechanisms at high points in the system so that we don't need to remove and replace sprinklers.

The reason for the change is the potential for the torque that is placed on a sprinkler during removal pushing parts of

the sprinkler out of tolerance. While such subtle shifts might not be noticed by the human eye, they might affect the way that a sprinkler operates. The manufacturers feel that for the cost of a new sprinkler, it is not worth the risk of re-installing a sprinkler that might be out of tolerance, regardless of how well it was treated when it was out of the system.

It should be noted that this new rule will not affect the removal of drops with sprinklers on them. If the drop is removed without touching the sprinkler, there should be no question that the sprinkler tolerances have not been affected. However, the drop will need to be treated carefully while it is out of the system to make sure that the sprinkler is not damaged and is not exposed to high temperatures.

#### 7. Sprinklers in Bathrooms

Starting with the 1989 edition of NFPA 13, sprinklers have been permitted to be omitted from all dwelling unit bathrooms that meet certain size and combustibility requirements. This corresponded with a major shift in building codes to require sprinklers in all multi-family housing. The agreement to leave sprinklers out of small bathrooms was worked out with builders of multi-family apartment buildings as a part of a package to make sprinkler systems more affordable to them. Years later, the fire record has been good with no significant fires occurring in bathrooms, and excellent protection provided by the sprinkler systems in these multifamily units. One reason that the requirements to sprinkler multi-family units have remained in the building codes is that the sprinkler industry and the multi-family home building industry have maintained this alliance that was struck 23 years ago in keeping sprinkler systems affordable.

The development of the 2010 edition of NFPA 13 started to strain this alliance. Elements within the sprinkler industry pushed to put sprinklers back in all bathrooms except hotels and won in committee meetings. The multi-family housing industry fought back and got the bathroom exception reinstated through an NFPA membership vote.

Rather than letting the issue rest, the

>> CONTINUED ON PAGE 21

sprinkler industry pushed to put sprinklers back in all bathrooms except hotels again when writing the 2013 edition of NFPA 13 and, once again, won at the committee meetings. The multi-family housing industry will once again be fighting this issue at the NFPA meeting.

This issue is not a big technical concern. Whether we sprinkler small bathrooms or not is not going to make or break a job and is not likely to significantly change the fire record. So why has it been listed here as a top trend? The answer is that it signifies a disturbing trend that is not only likely to damage our alliance with the multi-family housing industry, but it is also making it more difficult for us to get sprinklers in single family homes.

Years ago we forged an alliance with multi-family homebuilders to achieve a goal. We achieved that goal and have then gone back on our word, without any significant fire experience to justify our actions. As we work to forge alliances with the single family home builders and address their concerns about system costs, what mechanism do we have to let them know that we will keep our word? I fear that our reputation has been tarnished by pushing this issue on bathrooms that will ultimately not make a big difference in the fire record. As an industry, we should recognize that we made a good deal originally in 1989 and we should stick to it without pushing for small bathrooms to be sprinklered.

#### 8. K-14 ESFR Restriction

Many years ago, criteria were added to NFPA 13 to permit the use of K-14 ESFR sprinklers to protect rack storage in buildings up to 40 ft in height. Based on new testing at Underwriters Laboratories where some failures occurred, the Sprinkler System Discharge Criteria committee decided that NFPA 13 can no longer allow the use of K-14 ESFR sprinklers to protect buildings with a 40 ft ceiling with ceiling-only protection for new systems.

Technically, this decision does not affect existing systems. In an effort to improve fire protection systems over time, there have been many situations in the past when NFPA 13 has made the standard more stringent for new systems while leaving existing systems alone. Whether a building owner decides to keep their K-14 ESFR sprinklers in previously installed systems or not will be a risk analysis that the building owner will need to decide.

#### 9. New Chapter 21 for NFPA 13

A new Chapter 21 has been added to NFPA 13 to serve as an option for the protection of storage occupancies. Rather than replace the existing storage rules that have worked well for years, NFPA 13 will offer the criteria in this new chapter as another acceptable method to protect a variety of storage occupancies. The criteria in this chapter will be based on full-scale fire testing with appropriate safety factors, allowing the design of the sprinkler system to fall below 2000 sq ft, which in the past was a minimum for protection with spray sprinklers.

The rules in Chapter 21 assume that the testing laboratory that conducted the fire tests actually tested a reasonable worse-case condition. With that being the case, the number of sprinklers that will be required for the design area will be the largest number of sprinklers that opened during the fire tests with a reasonable safety factor applied. Then, the following minimum criteria will also be applied (in case only a few sprinklers opened during

the tests):

- Minimum 12 sprinklers for standard spacing (100 sq ft)
- Minimum 8 sprinklers for extended coverage at 12 x 12
- Minimum 6 sprinklers for extended coverage at 14 x 14
- Minimum operating area of 768 ft<sup>2</sup>

As the Sprinkler System Discharge Criteria committee sees this new chapter working in the future, manufacturers of sprinklers will need to perform their tests and then bring their data to the committee to get approved and placed in the tables in this chapter. Once criteria has been established for a certain type of sprinkler to protect a certain type of storage, all other manufacturers of that type of sprinkler that also want to get into Chapter 21 will also have to adhere to the protection criteria specified by the first manufacturer. This will prevent one manufacturer from trying to "beat" another one with slightly lower criteria for the same type of sprinkler.

#### 10. Galvanized Pipe

Based on input from sprinkler contractors and fire protection consultants doing internal inspection of piping systems, the Hazen-Williams c-factor for galvanized pipe in dry and preaction systems will be changed from 120 to 100. The change is being made because there just does not appear to be sufficient evidence that the galvanization is providing superior corrosion protection inside the pipe.

Galvanized pipe will still be permitted to be used, but the incentive to select it by improving the friction loss characteristics of the pipe will no longer exist.





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## Fire Sprinklers, Architects and the Building Codes

By Jeff Hugo, CBO



hen architects in the know need training on fire sprinklers and building codes, they come to NFSA. The National Fire Sprinkler Association has provided AIA/CES registered seminars for several years to dozens of AIA chapters and hundreds of architects.

Our two most popular on-site AIA programs are: Fire Sprinkler Design Options in the IBC and Designing with Fire Sprinklers, which are specifically created for design professionals. These seven-hour programs identify and explain design options using sprinklers that permit design flexibility, save money and increase life safety in all buildings.

Our attendees gain the knowledge necessary to assess the adequacy and performance of current basic building and fire code requirements. Our discussions show proven strategies for increasing fire protection without increasing construction costs. Our AIA seminars cover the following areas that concern the design professional:

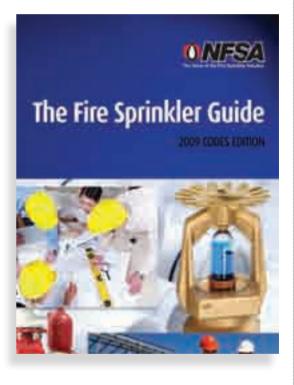
- Recognize the benefits of fire sprinklers and how they function
- New advances in fire sprinkler technology
- · Case studies of un-sprinklered and sprinklered buildings
- Specific building code applications
- The architect's use of NFPA 13, 13R and 13D
- Sprinkler obstructions
- Concealed spaces
- Site and plan review cautions and examples
- The economics of fire sprinklers

Attendees will not only gain the knowledge necessary of the current requirements of codes and standards but will leave with solutions that benefit the relationship of the architect and fire sprinkler contractor.

Participants will learn how to use NFSA's Fire Sprinkler Guide, which identifies the time, money, and life saving code requirements and guides them through several national model codes.

NFSA also offers on-line training for the AIA Professional. NFSA's Live Technical Tuesday seminars are AIA/CES registered for HSW learning units. NFSA.tv also has additional learning opportunities.

To order the Fire Sprinkler Guide, visit the NFSA Resource Center online at www. nfsa.org. To schedule or discuss AIA training, please contact Jeffrey M. Hugo, CBO at hugo@nfsa.org.





Jeff is NFSA's Manager of Codes

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## www.nfsa.org

## NFSA Behind the Scenes - Meet the Accounting Staff

**By Joanne Genadio** 

n the fire sprinkler community, many of the NFSA staff are well-known, well-respected and recognizable. However, we do have many employees that do a great job, are just as dedicated and are major assets to the Association. We all know that a house is only as strong as the foundation it's built on. As such, I'd like to use this column to give you all a chance to get to know the great people that support this great Association. Without them, this well-oiled machine would definitely throw a few pistons.

**Linda Daly** *Manager* of Human *Resources* 

Linda has been with NFSA over five years. Originally hired as a book-keeper, Linda received a



well-deserved promotion to Manager of Human Resources last year. Her duties include general accounting-reconciling accounts, journalizing transactions, cost allocations, monthly closings; payroll and human resources-benefits administration for existing and new employees. As you can surmise, Linda, like many of the NFSA support staff, wears many hats. She enjoys assisting her fellow employees and members with any requests that may arise. Linda receives great satisfaction from the fact that she's been instrumental in helping others to resolve problems or complete tasks. She also likes the diversity of her responsibilities. Every day is a new challenge as she never knows what special requests or projects may come her way. That, she says, is what keeps things interesting. Her dedication to her job is evident. Linda is the one, nine times out of ten, who locks the doors to the offices at the end of the work day.

Linda has a B.S. in Business Administration from Marist College in Poughkeepsie, New York. Her daughter, Jessica, of whom she's extremely proud, will soon graduate from Northeastern University in Boston, Massachusetts with a degree in Graphic Design.

In her spare time, you can find Linda puttering in her garden, hanging out with her extended family or reading the latest Stephen King novel. She is a hiking enthusiast and is proud to be able to say that she did four months of training and fund-raising for a Hike for Discovery for the Leukemia and Lymphoma Society that culminated in a hike down into the Grand Canyon. Linda calls that an awe-some experience!

Contact Linda at daly@nfsa.org or 845.878.4200 ext. 112

**Judy McNulty,** Accounts Receivable, Membership Services

Judy will celebrate her sixth anniversary with NFSA this year. Many of you know



her voice as one of her favorite duties is talking to members and helping them with membership questions or concerns. Judy has a great phone personality that goes along with her in-person charm. She's at her desk early and often stays late, so engrossed in what she's doing, she doesn't realize the time. She says that she's "met" wonderful people over the phone throughout her years at NFSA. She is glad she was given this opportunity to get a little more up close and personal with the members she interacts with on a day-to-day basis.

Judy has been married for 34 years

>> CONTINUED ON PAGE 26



NFSA's Advertising and Communications Coordinator

Joanne Genadio

(yes, she was a child bride) and has three great sons, ages 22, 25 and 28. She enjoys gardening and is like a kid in a candy store when she goes to a nursery. Judy also likes to cook and her family tells her she's pretty good at it! Judy says that with three sons, putting food on the table helps everyone gather together, which is wonderful. She loves to travel and see things she's never seen before. She also keeps a long list of things she wants to see again as well. Hopping on the back of her husband's Harley and going for rides is on the top of her list as one of the best ways to spend the day. When she's not riding a hog, she also enjoys music and reading.

When asked what makes her unique, Judy replied, "Besides New York, I've had the opportunity to also live in Florida, California and Washington. There's so much to see in our great country and it has been nice to live in different places."

Contact Judy at mcnulty@nfsa.org or 845.878.4200 ext. 115.

**Theresa Scalone**Bookkeeper,
Membership
Services

Theresa's job encompasses accounts payable, accounts receivable,



vouching expense reports and collections. She started as a part-time employee in July of 2008. Because of her outstanding work ethic and ability to take her job responsibilities to greater heights, Theresa was offered and happily accepted full-time employment in 2010. For those of us who have had to submit expense reports for her to "scrutinize", we well know to what degree she takes her job seriously. No sneaking a three martini lunch or a box of Just for Men™ passed her! Don't even try it. NFSA members can rest assured that the "expense account watchdog" is definitely of the pit bull variety!

Theresa loves her job not only because she enjoys cracking the occasional whip,

but because of her fellow employees. She calls the accounting department "great" and truly looks forward to coming to work every day.

Starting in banking, Theresa was an assistant manager when she left to start a family. She then joined in the family millwork business and became a stair builder before joining NFSA. Her current job, she states, is a lot less strenuous (physically, anyway!).

Her NFSA "moment she'd rather forget" was when she did a presentation at last year's staff meeting. Theresa abhors public speaking and was floored when she learned she'd have to stand up in front of the entire NFSA staff and guests and report on, what else, expense reports. As far as this writer remembers, she did a great job. She made the audience laugh and kept them engaged on a subject that might have, if presented by someone less personable, ruffled a few feathers.

Theresa's two sons, ages 22 and 24, look forward to her coming home every night. Their mom is a great cook! Theresa has turned the NFSA kitchen into a cook's paradise. We've got pots, Corning ware, real silver, and a different aroma wafting down the hallways every day at lunchtime. It's a far cry from the paper plates, plastic utensils and boxes of Cup A Soup $^{\text{TM}}$  we'd grown accustomed to.

On a personal note, Theresa also enjoys gardening, getting together with family and friends (especially if volleyball is involved) and taking vacations. She adores the beach and visits one every chance she gets. Beach volleyball anyone?

Contact Theresa at scalone@nfsa.org or 845.878.4200 ext. 150

Lori Schiavo
Bookkeeper
for Industry
Promotion
Fund, Accounts
Receivable
and Accounts
Payable

Lori's bubbly personality



and upbeat demeanor makes her a favorite amongst her co-workers and NFSA members who have gotten to know her throughout her six years at NFSA. She has a guick wit and happy outlook on life. You can always count on Lori to bring a smile to your face when you speak with her. Many of our members can attest to that fact. Lori works closely with contributors to Industry Promotion, NASI, and other funds. She enjoys the diversity of her job. One thing it's not, she says, is monotonous. New challenges appear on her desk every morning. The word "routine" is not in Lori's vocabulary, or her job description for that matter! Lori enjoys the fact that her job duties allow her to continue to grow and learn and she is always eager and willing to share her new found knowledge with others. If there's a way to get what a member needs in a faster or more efficient manner, Lori will find it.

Lori and her husband just celebrated their 20th anniversary. They have three children, ages 18, 14 and 13. She's proud to bleed "Yankee Blue" and makes it a point to go to at least one New York Yankee game every season. She's happy to see Andy Pettite on the mound again and celebrates Yankee Captain Derek Jeter's milestones right along with him.

The "did you know" fact Lori wants our readers to know is that she is proficient in both the flute and the piano. Lori has played the flute since learning how in the 4th grade and the piano since 7th grade. She even went so far as to admit that she was one of those "girls in the band."

Contact Lori at schiavo@nfsa.org or 845.878.4200 ext. 114.

And there we have it. We are as proud of our employees as we are of our members. We are fortunate to have a wonderful, dedicated staff here at NFSA. We all work well together, are happy to come to work and truly believe in doing all we can do to promote the fire sprinkler concept. In a day when there are so many different definitions of the word "family", we are fortunate to count ourselves as one of them.  $\Phi$ 



Regis J. Thomas Sr., President (I) and, William D. Yeckley Jr., Vice President (r) of Quick Response Fire Protection Systems, Inc. in Hastings, PA. celebrated their 15th anniversary as NFSA members with a plaque awarded by Mid-Atlantic Regional Manager Ray Lonabaugh.

Accu-Fire of Morrisville, Pennsylvania celebrated their 20th anniversary as NFSA members. (I to r) Vince Murphy Jr., Rafael Rondon, Annette Carmona, Vince Murphy Sr. Dan Boice.









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# 2012 ANNUAL SEMINAR LOS CABOS, MEXICO MAY 3-5, 2012

When the wheels touched down in Baja California Sur by all accounts NFSA's Annual Seminar held in Los Cabos, Mexico at the Los Cabos Hilton May 3 – 5 was one of the best ever – certainly in terms of location and programming. Contractors in attendance raved over the quality of the seminar topics, citing them right on point with issues facing fire sprinkler contractors today.



While attendance was somewhat low over a perception of security related issues in Mexico and a lagging U.S. port the Association's Annual Seminar Cabos stopped at nothing to ensure Quite possibly the best experienced at any NFSA Annual Seminar. The hotel landing at San Jose del Cabo airport in route to the Hilton Los Cabos, it becomes obvious to first time visitors that airport in general is like any other with one notable exception; the abundance through information provided to each to the airport exit, without making eye contact with anyone along the way, to where local transportation had been arranged in advance of arrival. The route to the airport on clean, air conditioned shuttles was through the most arid and inhospitable country one could possibly imagine. It is a desert, after all, but even the cactus looked parched. It was later turn to the west, and for the better, that the Sea of Cortez came into view for the first time. What a glorious sight. The have difficulty finding the words to describe. 15 minutes later arrival at the Hilton Los Cabos proved there are oases in the desert. At check-in guests were met by attentive hotel staff, the friendly greeting of Hola, and a frozen margarigetting settled in, having spent the balance of the day of arrival in or around the infinity pool sipping on a favorite the beach, now being fully acclimated in their new, quite spectacular surroundings, guests were eager to get fully imwhich reportedly was one of the best bers an opportunity to input on NFSA



NFSA Chairman of the Board Dennis Coleman opens the conference

NFSA Northwest Area Director Jim Boulanger and NFSA Northwest Regional Manager Suzanne Mayr present the "Rest Assured" Award to Hilton Los Cabos representatives









### LOS CABOS, MEXICO



Russ Fleming delivers his first State of the Industry Address as NFSA President

NFSA Vice
President of
Engineering Ken
Isman summarizes industry
technological
advances in
his State of
the Technology
address





issues facing the fire sprinkler industry.

elected President of AMRACI, the

AMRACI will be partnering with NFSA

Award. This year's recipient, Claude L. Chafin, who is the epitome of a southern gentleman, was extremely gracious remarks. Russ Fleming, newly elected NFSA President, continued the tradi-Address in which he emphasized a new culture at the Association, one of consensus and transparency. Russ was followed on the program by Vice President of Engineering Ken Isman, who noted that since he was the only thing between hundreds of guests and lunch, that he free. This year's Leadership in Public Safety Award was presented to Cindy Letter sororities, was very complimentary of the Association for its initiatives campus housing. Following a sumptuous lunch, the program continued with presentations from Doug Baumoel of Continuity Family Business Consulting. His topic, Next Generation Planning, provided answers to challenging quesall in attendance. Anchoring the first partner in the law firm of Whitney and ing passed down the contractual chain, his presentation entitled Limiting Your der the desert stars and in the glassy reflection of the Dolphins Pool provided guests with an opportunity to network

After hours the party continued in the



### LOS CABOS. MEXICO:





Amy Acton of the Phoenix Society with her son Reed



Cary LaRue and Clairese Huennekens



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comped NFSA for hosting the conference. A great time was had by all. It was Cabo. The next morning found guests up early and eager to begin the day's program. Contractors received pointers from Russ Leavitt who explained the new business model; Getting Work and Getting Paid, while spouses were off to a wellness and cooking program. Rumor has it that the spa treatments were the general session, NFSA's Vice President of Engineering Ken Isman and Vice President of Regional Operations Buddy Dewar were moderating panel discussions on Working with BIM (that's Building Information Modeling for the lay person) and 3rd Party Administraceived. Anchoring the program was inspeaker Boaz Rauchwerger, author of the The Tiberias Success Formula. In a word, his presentation was "unbeliev-It's a bit of an inside joke. After Larry Thau, newly elected Vice Chairman of the Board, provided a summary of the dav's events, Chairman Dennis Coleman added his thoughts, closing out by thanking all in attendance for their supgreat team building sport and one participated in with high levels of enthusi-"spiking" or "digging" on the court with expectations of moving on in the support from the sidelines, everyone always has a good time. And while this didn't pass without incident. Oddly enough, it not only began to rain, but thunder and lightning as well. Imagine that. Be reminded that Los Cabos is in one of the most arid climates on the would have said it never rains there. And this wasn't just your garden variety spring thunder shower either, but rather more like the unleashing of some long pent up angry spirit. Well, it didn't take long for everyone to get the message and scramble back to the comfort and



Vice Chairman Larry Thau serves as Chairman of the Day for the second day of the conference



Russ Leavitt of Telgian Corporation explains the new business model; getting work and getting paid



Ken Isman moderates a panel discussion on the expanded use of BIM. Ricky Jackson (left) Northstar Fire Protection of Texas and Alan Johnston (right) of Hydratec.



# LOS CABOS, MEXICO



The Nordic Vikings sport team jerseys customized just for the volleyball tourney



Russ Fleming and his counterpart at AMRACI (the Mexican Fire Sprinkler Association), Mike McDaniel, take in the competition from their lawn chairs in a sandy sky box.



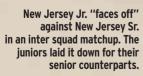
The Golden Pogos had their mojo working in Cabo as they swept through the winners bracket to take first place



The spunky squad of six from Team NFSA



Team Tex finished second in the volleyball tournament





security afforded by the hotel - that is sipping Coronas from the relative security of a tiki hut – relative meaning that the leeward side of the hut stayed somejust implicated in the foolhardy practice of staying outdoors in a lightning storm. Oh well. Anyway, after a brief delay the without further interruption. With fitting names such as Nordic Vikings, Cabo Wabo and New Jersey Junior and Senior, all played with reckless abandon to win. In the end, Golden Pogo swept through the winners bracket defeating nice prizes and perhaps most importournament. The Annual Seminar's member the place is a desert so there is sand everywhere. It only seemed fitting. However, just like earlier in the day, not to be forgotten, mother nature exercised wasn't 15 minutes into the beach party - many just getting their first margarita - when the skies opened up again. Leaving nothing to chance, the hotel opthe ballroom. While disappointing, at least initially, for both staff and guests, the move was in the best interest of all and turned out great. The band kept ing what was the longest conga line in the history of NFSA, a rendition of Guns and Roses' Sweet Child of Mine brought out do-rags and encore cries. touched down in Baja California Sur for everyone in attendance, it was the were on point, the location was phethere, you already know the rest.If you haven't already, be sure to mark the Expo<sup>TM</sup> being held at Caesars Palace in fabulous Las Vegas. 💿











### RESOURCE CENTER

The Voice of the Fire Sprinkler Industr



The National Fire Sprinkler Association is proud to announce the release of The Hydraulics Handbook, an overhaul and update of a publication originally put out in the early 1990's. This new updated edition is a comprehensive discussion of everything having to do with the hydraulic calculation of sprinkler systems. There are three distinct parts to the new Handbook:

- Excerpts from the NFSA textbook Layout, Detail, and Calculation of Fire Sprinkler Systems that deal with hydraulics. These comprehensive chapters cover the methods and concepts involved with calculating a fire sprinkler system by hand or with a computer program. Each chapter ends with a series of questions to make sure that the user understood the concepts in the chapter.
  - 2. A brief discussion of conducting hydraulic calculations from the perspective of a code enforcement official. This discussion is helpful for the plan review of calculations that have been submitted. A sprinkler technician can also use this information in spot checking the output from a computer program.
  - 3. Friction loss tables. There are many different types of pipe and tube used in sprinkler systems. For each type of pipe, this book has a page with the friction loss per foot of pipe at a variety of different flows. Each page also contains the equivalent length of the fittings (tees, elbows, control valves, and check valves). These pages substitute for performing the Hazen-Williams friction loss calculation on a calculator and save time for people performing hydraulic calculations by hand or for people wanting to spot check calculations performed by a computer.

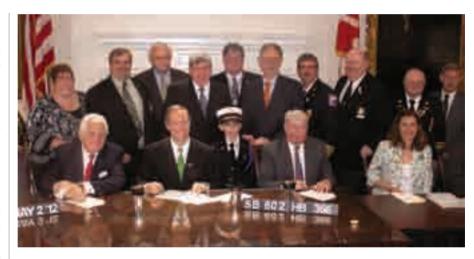
With almost 400 pages of text, this book is a "must have" for anybody that performs hydraulic calculations of fire sprinkler systems or performs plan review and approval of hydraulic calculations. Order your copy at www.nfsa.org at the Resource Center or fill out and return the order form below.

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# How the History of Residential Fire Sprinklers in Maryland Led to a Statewide Requirement

he State of Maryland is comprised of 23 counties and 157 incorporated cities and towns within the 23 counties. The State adopts the International Building Codes as part of the Maryland Building Performance Standards. The individual counties and incorporated cities and towns follow the state with their own adoption of the International Building Codes. The counties and the incorporated cities and towns (local jurisdictions) can strengthen or weaken the state adopted building codes. By law, there are some building code requirements that can't be weakened by local jurisdiction adoptions. Up until October 1, 2012, all the requirements in the International Residential Code (IRC) could be weakened or opted out by local adoption. What's going to change on October 1? Local jurisdictions will no longer be able to weaken or opt out of the residential sprinkler requirement in the IRC. When did the law change? On May 2, 2012.

On May 2, 2012 Governor Martin O'Malley (green tie), Senate President Thomas Miller, Jr. (left of Governor) and Speaker of the House of Delegates Michael Erin Busch (right of Governor) signed cross-filed bills HB-366 and SB-602 into law. The new law amends the Maryland Building Performance Standards by disallowing the weakening of the state adopted IRC by removing the residential fire sprinkler requirement by counties and local incorporated municipalities. Witnessing the signing are members of the Maryland State Firemen's Association



Residential Fire Sprinkler Initiative Committee including Deputy Junior Fire Chief Colton Miller and, standing behind the Governor and Colton Miller, Senator Roy P. Dyson, sponsor of SB-602.

The path to May 2, 2012 started slow beginning in 1988 with Prince Georges County becoming the first county in Maryland to require residential fire sprinklers in new townhouses, apartments, and condominiums. Three years later the State of Maryland followed Prince Georges County on July 1, 1991 when the state required residential fire sprinklers in multi-family, hotel, motel, dormitory, lodging or rooming houses.

The Incorporated City of Laurel, Maryland in Prince Georges County was the first to require residential fire sprinklers in new one- and two-family dwellings and townhouses in January 1991. A year later, in January 1992, Prince Georges County

followed the City of Laurel, also requiring residential sprinklers in new one- and two-family dwellings and townhouses. The State of Maryland followed Prince Georges County six months later, on July 1, 1992, when the state made a change to the Maryland Building Performance Standards requiring sprinklers in all new townhouses. At that time, the State did not require sprinklers in new one- and two-family dwellings. We note today, the City of Laurel has a zero square footage

>> CONTINUED ON PAGE 40



Ray is NFSA's Mid-Atlantic Regional Manager

Ray Lonabaugh

exception for sprinklers. In Laurel, "You build it, you sprinkler it."

New residential fire sprinkler requirements in Maryland took a hiatus for about three years until 2001 when the cities of Rockville and Gaithersburg in Montgomery County passed sprinkler requirements for new one- and two-family dwellings. In 2003, the town of Mt Airy in Carroll/Frederick Counties passed a residential fire sprinkler requirement for one- and two family dwellings. Montgomery County followed suit in 2004 with a residential fire sprinkler requirement, becoming the second county in Maryland to require sprinklers in new one- and two-family dwellings.

It wasn't long before benefits from sprinklers were realized in Prince Georges and Montgomery Counties, and the cites of Laurel, Rockville, Gaithersburg and the town of Mt Airy. The reduction in fire deaths, injuries and damage were beginning to be noticed. This laid the ground work for the formal residential fire sprinkler movement in Maryland.

In 2004 then House Delegate Adrienne Mandel from Montgomery County introduced House Bill 1046 "Task Force on Automatic Sprinklers in Homes." The intent of the bill was to create a task force to study the impact of requiring residential fire sprinkler systems in the construction of all new one- and two-family homes in Maryland. The bill was heard by the Environmental Matters Committee on March 11, 2004. At that time, county fire officials, industry professionals, and NFSA, all spoke in favor of the bill. Opposition came from home builders and plumbers. As a result of the activity during the hearing, it appeared the bill would pass committee. However, that was not the case. The bill received an unfavorable report by the committee on March 26, 2004. The bill died in committee. It became obvious that Maryland was not ready for a state-wide sprinkler requirement for one- and twofamily dwellings. It was also obvious that for any effort to be successful, educating the legislators, as well as the public was necessary.

In early 2005, the Carroll County Volunteer Firemen's Association began work to require residential sprinklers in one- and



Standing on the steps of the Maryland State Capitol in Annapolis following the Governor's signing of HB-366/S-602 on May 2nd is State Fire Marshal William E. Barnard on the left and Douglas Alexander, Past Chairman of the MSFA Residential Fire Sprinkler Initiative Committee on the right.

two-family dwellings. The Firemen's Association learned that if any local legislation was to be passed requiring residential sprinklers, the legislators, whether county commissioners, city council, or town council as well as the community, need to be educated on the benefits of automatic fire sprinkler protection. The myths needed to be dispelled. The Carroll County Volunteer Firemen's Association launched a thorough campaign to educate the county commissioners, the citizens of the county, and all firefighters about the benefits of residential sprinklers. The Firemen's Association sought and received much needed support from the Maryland State Fire Marshal's Office, Insurance Services Office Maryland Fire and Rescue Institute (MFRI), local sprinkler companies, and some insurance companies. An education and demonstration seminar was presented at the Westminster Volunteer Fire Department in late March 2005 where the sprinkler trailer from MFRI was utilized to show graphically how effective residential sprinklers were. This session was videotaped by the local cable TV

company and broadcast throughout the county many times over the following months. In June 2005, the county commissioners voted to require residential sprinklers in all new one-and two-family dwellings effective January 1, 2006. This was a huge victory for the fire service and the citizens of Carroll County. This effort became the springboard for further efforts in Maryland. NFSA provided a grant for the MFRI sprinkler trailer.

The Maryland State Firemen's Association (MSFA) followed the Carroll County Model when Lee Sachs, then President of the Association, appointed a sprinkler committee in June 2005. The committee provided assistance and support to the fire service in obtaining residential sprinkler requirements anywhere in the state, with a goal of statewide requirements in the future. The committee started with approximately 15 personnel who met and began to organize an approach to bring residential fire sprinkler requirements to all areas of Maryland. The committee put together a multi-faceted plan to accomplish the task.

- Put together a comprehensive education program to reach firefighters, citizens, and local governmental officials on the facts about residential sprinklers.
- 2)Solicit the help of related agencies such as the Maryland State Fire Marshal's Office, Maryland Fire and Rescue Institute, Maryland Fire Chief's Association, Fire and Burn Safety Coalition of Maryland, the Fire Prevention and Life Safety Committee of the MSFA, and as many county fire associations as possible.
- 3)Complete a mission statement agreed upon by the Maryland State Firemen's Association.
- 4)Reach out to other organizations including sprinkler installers and fire safety organizations to tap into their experience and knowledge in this area.
- 5)Extend our offer of assistance to all fire companies and fire service organizations across the state. We will assist any local group, but will not serve as a sponsor or catalyst for action. Initiation of an effort to obtain requirements for residential sprinklers must originate from the local fire service.
- 6)Take a one-by-one approach and take on those jurisdictions willing to do so rather than attempting to bring the whole state on at one time. Once we reached a "tipping point" then attempt to bring on the whole state under one requirement.
- 7) Work only towards requirements for new homes at this time due to the additional costs for retrofitting older homes. We are more interested in getting residential sprinklers in new homes due to the lightweight construction, open floor plans, and amount of decorative materials placed in homes today. We will advocate for residential sprinklers to be retrofitted in older homes, but for now will not promote requirements for such. With these tasks identified, the committee began to contact the related agencies to explain their intentions and request assistance. In all cases, the MSFA was

greeted with enthusiasm and a pledge to assist. This became the team behind the MSFA Residential Sprinkler Committee and continues to be the backbone and support. Without the support of this team, the accomplishments would not have been realized. Once this team was in place, the education efforts started in earnest. Many educational gatherings were attended to get the facts out on residential sprinklers. Governmental meetings, civic club meetings, firefighter meetings, and gatherings of interested citizens were just some of the places the Residential Sprinkler Initiative Committee attended to get the facts out. With the help of the State Fire Marshal, a mission statement was developed. The Executive Committee of the MSFA supported this mission statement and the statement became a written explanation for the existence of the Residential Sprinkler Initiative Committee. The mission statement can be found on the MSFA website, www.msfa.org/content/ sprinkler/, at anytime.

#### **Local Fire Service Efforts**

As the educational process began, it quickly became apparent that the effort to get residential sprinkler requirements had to come from the "local" fire service if the efforts were to be successful. Government officials are really not interested in hearing from people from other geographical areas when discussing local requirements or ordinances. The MSFA Residential Sprinkler Initiative Committee learned they needed to be a consultant for the locals and support them in their efforts by providing them with facts, supporting documents, sample ordinances, and technical support when they went before their local governmental officials. Of course, the committee members could also demonstrate the support of the MSFA which is the organization that represents the volunteer fire service of Maryland. The Committee learned that career firefighter unions and other committees were also willing to support the local efforts. They were involved whenever possible. They proved to be great contributors. The Committee found that most of the time the local building official understood and supported the requirement for residential sprinklers, particularly after the requirement became part of the International Residential Code. The Committee also learned to assume a "take what you can get" approach as some municipalities only wanted to adopt requirements for duplexes, and some municipalities only wanted to adopt it for areas with water systems in place. The Committee found that a "half of a loaf" was better than not getting any requirement.

Members of the committee who are also members of the International Code Council, worked to get fire service to join the ICC and participate in hearings and votes to include residential sprinklers in the 2009 and 2012 editions of the International Residential Code. These efforts. along with the efforts of many fire service groups and concerned fire service personnel, were successful in Minneapolis in 2008 and Baltimore in 2010 for cementing these requirements into the code editions. Maryland fire service personnel had a major impact in this success. However, all must continue their vigilance or the homebuilders will overturn the success in future code editions.

The MSFA Residential Initiative Committee traveled to many communities and counties across the state supporting the efforts of the locals. The Committee consists of members with skills in different areas. For example, the Committee had three fire protection engineers, support from the State Fire Marshal's Office, an active sprinkler company as well as fire sprinkler associations. In different areas of the state, when it came to hearings and educational gatherings, the committee provided documentation and face-to-face support for the locals. A mission statement was developed, a fact sheet was created and distributed, handout items such as rulers, key chains, lanyards, pins, etc. were purchased for a quick giveaway or reminders. In addition, a booth was set up at the Maryland Association of Counties (MACo) convention each year in Ocean City to help provide an avenue for the education for county officials. The approach was to go wherever the officials were interested and "sell the product" so to speak. One by one, as municipalities and counties came on board with require-

ments, the Committee found more folks willing to listen.

Prior to May 2, 2012 there were 13 of 23 counties and 94 of 157 municipalities, including Baltimore City, covered by requirements of their own for residential sprinklers in new one- and two-family dwellings. However, the Residential Sprinkler Initiative Committee found resistance to any residential sprinkler requirement in the western and lower eastern shore counties of the state, even though the sprinkler requirement was part of all the model building codes. The Committee felt further education would help in these areas, but generally, the almighty dollar had been the factor disallowing these requirements to take place. Empathy towards the "poor citizen" who is "devastated by governmental intervention" was taking a toll on the Committee's success. The home builders continued to debate the sprinkler requirements. For some reason they believed residential sprinkler costs were killing their business and keeping people from buying new homes. The Residential Sprinkler Initiative Committee's response is, "Draw your own conclusion." Residential sprinkler costs are consistently 1% to 2% of the total cost of a new home. The NFPA estimates that the cost averages \$1.61 a square foot of homes nationwide.

The Residential Initiative Committee was, and continues to be, challenged by the homebuilders, realtors, TEA party proponents and those who think the Committee is infringing upon their right to have their home the way they want it when it comes to residential sprinklers. It was the "A man's home is his castle" syndrome. The Committee believes that the belief would have merit if proponents did not expect the government to get involved when they become an unfortunate victim of an act of nature by calling the public fire department. Those same proponents believe that their government should do all it can to save their lives and property despite how dangerous they have made their home or the situation at hand. Firefighters are not sacrificial beings to save citizens homes. Keep in mind that public fire departments and fire companies were first formed to prevent conflagrations, whereas, a fire in your house does not burn down your neighbors or the entire town. Sure the fire service will still go out on the limb to save a life, but do they have to throw themselves into a situation where property is the only thing to be saved?

When the public fire department is called for a fire it usually begins with the contents in the structure. Many of today's home contents involve synthetics of a hydrocarbon base. The synthetic materials produce much more heat as measured in British Thermal Units or BTU's than natural fibers that were used just a few years ago. The greater heat production has resulted in earlier fire flashovers where all the combustibles in the room or structure are heated to their vaporization and auto-ignition temperatures. Flashover can occur within three to four minutes in today's dwellings. To deal with the greater heat production, fire departments, as well as national standards for fire apparatus and manual fire suppression equipment have changed. In the past fire departments made use of pumpers in the 750 to 1,000 gallon per minute (gpm) range, with a water supply tank of 500 gallons in urban areas. Larger tanks were and continued to be used in rural areas where there were no fire hydrants. In the past 1-1/2 inch interior attack lines with a water distribution of 100 to 125 gpm were the standard. Today's fire department pumpers have larger pumps in the 1,500 to 2,000 gpm range and are now required to carry a minimum of 750 gallons of water. Interior attack lines are now 1-3/4 inch with a water distribution of 150 to 175 gpm. Some departments have stepped up to 2 inch interior attack hose lines, which can be difficult to maneuver in a dwelling.

In addition to the combustibility of the contents in the home, most new homes are built with open floor plans. The open floor plans in use today differ from construction of just 20 - 25 years ago when there were rooms separated from one another by walls and doors. Cathedral ceilings, ornate archways, open stairwells, and decorative partial doors have allowed houses to be essentially wide open, allowing fire to travel very quickly throughout.

Although a fire usually begins in the contents of a home and usually not with the structural members, once the fire reaches

the lightweight construction, which is in use in today's new homes, it provides little time to get into a house to save a life once the structural members are attacked by fire. Engineered lumber, which is usually termed "lightweight construction" can be stronger then dimensional lumber that was used in older homes; however, it does not have the mass, which allows it to be consumed by fire much faster. Lightweight structural members burn through much quicker allowing early floor and roof collapses. Failure can easily occur with the added weight of firefighters together with the weight of the contents in the structure.

The contents, open floor concept, and lightweight construction in today's dwellings are why residential sprinklers are so important and why the Maryland Fire Service has been vigilant in their efforts to support sprinklers.

In 2010 and 2011 the Residential Fire Sprinkler Initiative Committee began to see movement toward removing previously adopted residential sprinkler reguirements. This occurred after a western county challenged the state adoption of the IRC. There was a belief that local jurisdictions had only 180 days after the state adoption to adopt the code if they intended to weaken it by opting out of certain requirements such as sprinklers. If they adopted the code after 180 days they had to accept the state adoption and could not opt out of any code requirement. A challenge was made to the Maryland Attorney General's Office, which ruled the 180 day time frame did apply to certain model codes but not to the adoption of International Residential Code. This ruling followed an election where some new county commissioners took office and were not educated about sprinklers. Sprinkler opponents sought the opportunity to "hitch their wagon" to these newly-elected county commissioners in efforts to rollback previously adopted sprinkler requirements. Local volunteer fire companies responded immediately to the sprinkler rollback attempts, while some required assistance from the MSFA Residential Fire Sprinkler Initiative Committee. 99.9% of the rollback attempts were defeated.

In late 2011 it became apparent that another attempt should be made to require sprinklers in all new one- and two-family dwellings by disallowing local jurisdictions from removing or opting out of any life safety requirement contained in the IRC. The MSFA set out to obtain legislative support from the Maryland General Assembly by cross-filing a bill in the House of Delegates and a bill in the Senate that would disallow any life safety requirement in the IRC from being removed by local jurisdiction adoption. On January 30, 2012, HB-366 was introduced by Delegate James E. Malone. S-602 was introduced on February 3, 2012, by Senator Roy P. Dyson. S-602 was amended by narrowing the scope from "life safety requirement" to "sprinklers." There were also some minor changes for which the MSFA had no objections. The bills moved fast through committee making their way to Governor Martin O'Malley for his signature on Wednesday May 2. The new requirement is now part of the adopted International Residential Code which is

included in the Maryland Building Performance Standards.

The signing of this bill brings to a close the effort by the Maryland fire service to get statewide requirements in place to have residential sprinklers in all new homes. However, the fire service must remain vigilant as there will be those that will try to erase this success and attempt ways to avoid residential sprinkler requirements.

In conclusion, the MSFA Residential Fire Sprinkler Initiative Committee has had remarkable success in educating the public, the fire service, and governmental officials to the virtues of residential sprinklers. As the NFSA Mid-Atlantic Regional Manager, I was privileged to be a small part of the Residential Initiative Sprinkler Committee serving as a liaison member representing the National Fire Sprinkler Association. I was able to testify where needed but most of all I was able to witness the professionalism of the committee members and the respect they received from not just the local elected officials but also the Governor and the Maryland General Assembly. There wasn't a legislator who didn't know

a member of the Committee. In addition to the members of Sprinkler Committee, credit must also go to the Office of the Maryland State Fire Marshal under the direction of State Fire Marshal William E. Barnard. The State Fire Marshal's Office works closely with the Firemen's Association and the Sprinkler Committee.

The Residential Sprinkler Initiative Committee had been chaired by Douglas Alexander. Doug recently stepped down and the current Committee Chairman is Richard Green. Doug was very gracious by providing me with most of what you have just read on the history of residential sprinklers in Maryland and the Residential Sprinkler Initiative Committee, especially the activity that preceded my involvement. **©** 

Author's Note: The Maryland State Fire Association Residential Fire Sprinkler Initiative Committee was the co-recipient, along with the Pennsylvania Fire Sprinkler Coalition, of the NFSA 2011 Leadership in Public Safety Award, presented at the NFSA Annual Seminar & Exhibition in Baltimore, Maryland.



Vickie Pritchett (right) is joined by Cathy Hedrick (center) of the National Fallen Firefighters Foundation and Princilla Lee Bridges (left) of The Phoenix Society for Burn Survivors and Bridges of Augusta at the Kick-off of South Carolina Faces of Fire event on May 22, 2012 at Irmo Fire Department in Columbia, SC.



Bringing Greetings from Deputy Fire Administrator Glenn Gaines who was unable to attend the event but sent a prepared statement to be shared.



Non-Sprinklered vs. Sprinklered



# Notes from the Fire Scene...

reetings! I write this first column with excitement and anticipation all rolled into one, as I set out to share with you notes from your Public Fire Protection world. I say "your" because that's exactly what we are. I say "we" because even though Public Fire Protection is currently a one person department within the NFSA, it is still a team effort. So, please indulge my transfer to "we" as I refer to the activities that keep us busy.

First and foremost, it's important to understand that Public Fire Protection is the liaison to our other national organizations, with a special focus on fire service organizations. It's important for us to be involved with the U.S. Fire Administration. the National Fallen Firefighters Foundation, the Home Fire Sprinkler Coalition, the National Fire Protection Association, the International Code Council, the Phoenix Society for Burn Survivors, the International Association of Fire Chiefs, as well as other state and national groups. Our efforts support the mission of the NFSA, "To protect lives and property from fire through the widespread acceptance of the fire sprinkler concept." We focus on building relationships and being a resource to local, state and national initiatives and efforts.

When searching for a title for this column, I settled on "Notes from the Fire Scene..." because that is what I feel like our Public Fire Protection work is comprised of. Whether we are working

on coverage of a tragic fire where no fire sprinklers were present, or working to create resources that help educate regarding the importance of fire sprinklers, it's all one big fire scene! By working together, we realize the mutual benefit of partnerships and cooperation. We have watched as "unexpected messengers" have made the difference to policy makers as they vote on fire sprinkler requirements. We have shared in the excitement of personal stories being the catalyst to spark change.

I'm sure you can tell by now, being Director of Public Fire Protection is not a job to me.... it's who I am. I believe with every ounce of my being that we have a role to play and that we can make a difference... we can SAVE LIVES. Being a part of the NFSA family is one of my favorite "life milestones," I have loved getting to know so many wonderful families that are part of the fire sprinkler industry – from contractors to suppliers to manufacturers. Again, working together we are all more and our efforts have greater impact.

I look forward to sharing with you via **SQ** magazine, and I would like to thank NFSA President Russ Fleming for the opportunity. In my first meeting with Russ following his appointment as President, he expressed his desire for me to share more regarding what is going on within the PFP department, realizing that it's important for all of us to be aware and involved. So, thanks Russ! A new **SQ** chapter (or column) is born! So, let's get

started!

Dateline... May 22, 2012... the event is a kick-off campaign for South Carolina Faces of Fire. This is a great example of the role we play in the states where NFPA is focusing additional resources for Fire Sprinkler Coalitions. We are actively involved in each one, and South Carolina's campaign allowed us to participate, bringing our national partners along as well, including the US Fire Administration, National Fallen Firefighters Foundation and the Phoenix Society for Burn Survivors. We used the Home Fire Sprinkler Coalition's materials to distribute at the press conference to educate all of the major news networks who were in attendance. To view the PSAs that were debuted at the kick-off event, visit nfsa.org and click on the link that takes you directly to the campaign.

So that's it for this issue.... stay tuned for more notes from the road... oh, I mean "Fire Scene!"

Till next time, Vickie.



Director, Public Fire Protection National Fire Sprinkler Association

**Vickie Pritchett** 

# Now There's a Faster, Easier Way to Restrain Branch Lines in a Fire Sprinkler System





### The New CADDY® Branch Line Restraint System

- Complete restraint system includes structure and pipe attachments
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#### **NORTHEAST REGION**

#### DOMINICK KASMAUSKAS

Associate Director of Regional Operations - North



#### Marist College Off-Campus Fire Spurs Family's Activism

In an odd, tragic twist, one of

three young adults killed in a fire in an off-campus rental home in Poughkeepsie, New York, Kerry Fitzsimons, was well related to firefighters of Commack, Long Island and the fire sprinkler industry in NewYork City and Long Island.

Recently, a press conference arranged by Fitzsimons family members was held at the Commack Fire Department, where U.S. Representative Steven Israel announced his co-sponsorship of the Fire Sprinkler Incentive Act. Northeast Regional Manager Dom Kasmauskas was in attendance as well and fielded many statistical and technical questions.

The parents of Ms. Fitzsimons are working diligently with starting a foundation to help educate students about fire safety. Kasmauskas is working closely with them to help develop future live burn demonstrations and other events, including fundraisers and awareness campaigns.

Kasmauskas traveled to Washington D.C. to speak with staff from Rep. Israel's office and to thank them for working on this issue. He also visited U.S. Senator Chuck Schumer's office as well as other members of Congress that have cosponsored this bill and other fire safety related bills and serve on committees where these bills now reside.

Many of you or your coworkers have teens that are college searching. Make sure the place they decide upon has fire sprinklers.... particularly where they decide to live, on or off campus!

Visit www.campusfirewatch.com for more information.

Dominick Kasmauskas is the NFSA's Associate Director of Regional Operations-North and Regional Manager for the Northeast Region. He can be reached at Kasmauskas@nfsa.org or1436 Altamont Ave. Suite 147 Rotterdam, New York 12303, Phone 518.937.6589, Fax 518.836.0210.

#### MID-ATLANTIC

RAY LONABAUGH

Regional Manager



NFSA Region II Annual Seminar, Ocean City Maryland, July 19 - 20

This year the National Fire Sprinkler Association Area II Seminar will be held at the Princess Royale Oceanfront Hotel on July 19th and 20th. The hotel is located steps from the water in beautiful Ocean City, Maryland.

The seminar will include:

- Golf at the Links at Lighthouse Sound.
- Welcoming Cocktail Reception and Vendor Displays
- NFSA President Russ Fleming State of the NFSA update
- Top Myers, RelMark Group- CPVC Update/Best Practices on Inspection and Service Work - Limiting Liability.
- Fire Team USA Embracing a New Life Safety Perspective... It's Time. Vickie Pritchett, Director, Public Fire Protection, NFSA
- The Politics of Life Safety- Jim Dalton NFSA Washington/Congressional Liaison Residential Fire Sprinklers 101.... It's Critical Code Adoptions, Installations Standards, and Accreditation- Wayne Waggoner, NFSA Associate Director of Regional Operations - South
- Who are the Stakeholders? Step by Step Guide- Successful Models to Share- Vickie Pritchett

In addition to the informative presentations there will be:

- · Sandcastle Contest
- Volleyball tournament
- · Hawaiian Closing Dinner

For more information, contact Mid-Atlantic Regional Manager Ray Lonabaugh at lonabaugh@nfsa.org.

Raymond W. Lonabaugh is the NFSA Regional Manager for the Mid Atlantic Region. He can be reached at: lonabaugh@nfsa.org or P.O. Box 126, Ridley Park, Pennsylvania, 19078. Phone: 610.521.4768



>> CONTINUED FROM PAGE 47

#### **SOUTHEAST REGION**

**WAYNE WAGGONER** 

Associate Director of Regional Operations - South



Tennessee Home Builders Association File Bills to Take Away Local

# Jurisdictions Ability to Adopt Codes and Standards

Senate Bill 2492 - Senator Jim Tracy, House Bill 2639 - Representative Eric Watson

Tennessee Code Annotated, Section 68-120-101(a)(8), is amended by deleting the language "however, not withstanding this subdivision (a) (8), local governments may adopt more stringent requirements for one-family and two-family dwellings" at the end of the subdivision.

Bullet points of the Tennessee Legislation that was passed by the House and Senate awaiting the Governor's signature:

- Will make the code adoption and a sprinkler code adoption separate votes on a local level.
- The requirement will have to have votes on two separate occasions as a part of a specially called meeting.
- Local governments will be required to pass the sprinkler ordinance on the second reading with a 2/3 majority vote.
- This would also require a 2/3 majority Vote to remove any fire sprinkler requirement

Wayne Waggoner is the NFSA Associate Director of Regional Operations - South. He can be reached at Waggoner@nfsa. org or PO Box 9, Andersonville, Tennessee 27705, Phone 865.755.2956, Fax 865.381.0597.

#### FLORIDA & PUERTO RICO

LORRELL BUSH

Regional Manager

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#### Sam Davis of Island Harbor Construction Presented NFSA Media Award

On April 24, Buddy Dewar, NFSA Vice President of Regional Operations presented the NFSA Media Award to Sam Davis of Island Harbor Homes in Cape Coral, Florida. Sam was presented the award for his factual representation of automatic fire sprinklers in the media.

Terry Noonan, President of the Florida Fire Sprinkler Association a Chapter of NFSA, along with Bobby DiModica, President of the American Fire Sprinkler Association, presented Mr. Davis with a plaque thanking him for standing up for fire sprinklers. The plaque recognized Sam's desire to educate the public by including fire sprinkler systems in homes that he builds at no cost to the homebuver.

Sam is currently working with a local contractor to install automatic fire sprinklers in the home of a disabled veteran. Mr. Jim Shannon, who served in Vietnam and was affected by Agent Orange, would not be able to get out of a burning home with his disabilities. Sam worked very hard to make this happen for him. From all of us at NFSA, thank you, Sam Davis and Island Harbor Homes, for all you do!

Lorrell Bush is the NFSA Regional Manager for the Florida Region. She can be reached at bush@nfsa.org or 2025 Droylsden Lane, Eustis, FL 32726. Phone: 352.589.8402 Cell: 954.275.8487 Fax: 561.327.6366

#### **GREAT LAKES REGION**

RON BROWN Regional Manager



#### Mid-West Fire Sprinkler Summit

The Mid-West Fire Sprinkler Summit will be held in Columbus, Ohio at

the Hilton Easton on July 27 - 28, 2012. Don't miss two days of excellent educational workshops and an opportunity to look into the future of our great industry. The subject How Did We Get Here? and Where Are We Headed? will headline this great educational opportunity. For more information, contact Great Lakes Regional Manager Ron Brown at brown@nfsa.org.

# ITM/AHJ Class a Big Success in Columbus, Ohio

The ITM/AHJ class held in Columbus, Ohio in April was attended by 48 people, including a mix of fire and building officials and fire sprinkler contractors. Kevin Kelly, a consulting engineer with NFSA, taught the class and was able to generate considerable interaction between the



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attendees. The class mix, combined with class interaction, made this class a very valuable learning experience for all in attendance.

The class was free to all who attended, thanks to the Columbus-area NFSA members that helped fund the class through NFSA. Companies that helped with the funding include; Dalmatian Fire Inc., Capital Fire Protection, S A Comunale Fire Protection Systems, Fire Guard, VFP Fire Systems Inc., Viking SupplyNet, 3S Inc., Ferguson Fire and Industrial Sales. Thanks to all for your support.

NFSA is now looking into doing a similar event sometime within the next six months. The feedback received from classes indicates that there is an increase in the number of inspections being done and follow-up on any deficiencies found is more likely to occur. The class provides a great opportunity for contractors to build positive relationships with AHJs in attendance.

Ron Brown is the NFSA Regional Manager for the Great Lakes Region. He can be reached at Brown@nfsa.org or 1615 Cypress Spring Drive, Fort Wayne, Indiana 46814, Phone 845.661.6534; Fax 260.625.4478.

#### NORTH CENTRAL REGION

**BOB KLEINHEINZ** Regional Manager



#### News from Around the State of Illinois

The Illinois State Fire Marshal has begun the adop-

tion process of the 2012 Life Safety Code. This new edition will include fire sprinklers in all construction types.

On April the 18th, NFSA, in conjunction with NIFSAB, held a sprinkler trailer burn demonstration at the Capitol in Springfield. Over 55 burns were conducted with hundreds of people attending throughout the day. Illinois Governor Pat Quinn made it a point to stop and witness one of the burns.

North Central Regional Manager Bob

Kleinheinz is working on various town issues for passing new residential codes. His focus being to help the passing of the most current edition of the IRC with the fire sprinkler requirements intact. Push back and removal of some existing ordinances reverting to the IBC/IRC sizes for sprinklers have recently been occurring throughout the state.

Bob Kleinheinz is the NFSA Regional Manager for the North Central Region. He can be reached at Kleinheinz@nfsa.org or 509 Dawes Street, Libertyville, Illinois 60048, Phone 914.671.1975.

#### **SOUTH CENTRAL REGION**

CHRIS GAUT
Regional Manager



#### Wally Miller's Letter to News Reporters

In response to a news story re that killed two

regarding the tragic fire that killed two college students from SIUE in Southern Illinois, Wally Miller of the St. Louis Fire Sprinkler Alliance sent the following letter to the Post-Dispatch writers:

Jessica, Tim,

Read with interest your story about Lacy Siddall and Lauren Petersen who were tragically killed in an apartment fire. I have been reading these tragic stories in particular since 1964 when I became a Firefighter for the City of St. Louis. I retired in 1999 as a Captain/Assistant Fire Marshal. I learned many things in my career in the Fire Service but I believe the most important lesson I learned was; fire sprinklers save lives!

These two tragic deaths as well as Dominic Henson who was killed in a fraternity fire at Mizzou and who's mother Donna travels the country to tell "Dominic's Story" and Brian Schlittler who was killed in an UMSL fraternity fire and his mother Linda has become an advocate for fire sprinklers and the four people in St. Charles who were killed in a house fire



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on August 16, 2011 could have been prevented if a fire sprinkler would have been in place! Why do these tragic fires occur? What is the main problem? Why can't the fire service save people from deadly fires? I do have the answers, feel free to contact me if you would like to follow up.

Thanks,
Wally Miller
St. Louis Fire Sprinkler All

St. Louis Fire Sprinkler Alliance 101 W. Argonne Ave. Ste.#55 Kirkwood, MO. 63122-6119

\*\*To date, Wally has not received a response from the paper. Thank you Wally, for your efforts to reach out and educate. As Association members, we should all take a few minutes to either send an email or post a comment at the end of news stories such as the one Wally responded to. You never know when someone will actually listen to what we have to say!

Chris Gaut is the NFSA Regional Man-

ager for the South Central Region. He can be reached at gaut@nfsa.org or NFSA Central Region Office, 237 E. Fifth St. #135, Eureka, MO 63025, Phone 845.803.6426, Fax 636.410.7700.

#### **GREAT PLAINS REGION**

**TERRY PHILLIPS** 

Regional Manager



#### Colorado Water Discharge Committee Meets

On Monday, April 23, 2012, the

Water Discharge Committee held its first meeting regarding the Colorado Water Quality Control Act and the Federal Pollution Control Act, which affect the discharges from a fire sprinkler system. The main topic of the meeting was to address the concerns generated by the Colorado Department of Health & Environment

document "Guidance for Discharges from Fire Safety Maintenance Activities."

Those attending the meeting held at the Thornton Civic Center were: Bob Sullivan (Committee Chair). Senior Fire Protection Engineer, Thornton Fire Department; Terry Phillips, Regional Manager-Great **Plains** Region, NFSA: Susanne Cordery-Cotter P.E., Environmental Engineer-Utility Service, Colorado State University; Tony Wilkes, Operation Manager, Altitude Fire Protection: Steve Suzuki. Mater Electrician. Integrated Safety Services, LLC; James Knapp Project Manager, Premier Fire Protection, Inc.; Kerry Madigan P.E., Principal, Veritas Fire Engineering, Inc.; Tom Coakley, Area Manager, Western States Fire Protection; Al Quintana, Civil Engineering Technician, City of Thornton; Bryan Echelberger, Fire Protection Consultant, Veritas Fire Engineering, Inc.; and Bruce Lecair, Regional Manager-Southwest Region, NFSA.

As a result of the meeting, a sub-committee was formed to meet with CDPHE Construction, MS4, and Pretreatment Unit Manager, Nathan Moore, to present the concerns of the committee via a sub-committee made up of the following individuals: Bob Sullivan, Terry Phillips, Susanne Cordery-Cotter and Jim Knapp.

Terry Phillips is the NFSA Regional Manager for the Great Plains Region. He can be reached at Phillips@nfsa.org or Phone 914.525.4396, Fax 307.514.0406.

#### **SOUTHWEST REGION**

**BRUCE LECAIR** Regional Manager



NFSA San Francisco Chapter-Sponsored ITM for AHJ Classes a Big Success!

The ITM for AHJ's classes sponsored by the San Francisco Bay Area Chapter of NFSA were hugely successful and both classes in Hayward and Roseville, California were largely attended with 18 students in Hayward and over 40 students in Roseville.

Both classes were instructed by James Lake, NFSA Vice President of Communications and Training and were based on the California edition of NFPA 25.

Please note that classes at the El Cerrito/Richmond Fire Training Center have been moved to October 2-4 to give students a better chance to attend without having to decide between the ITM for AHJ and the NFSA Seminar. The site of the seminar will remain at 3506 Cutting Blvd.



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in Richmond, CA.

#### **Upcoming El Cerrito Class Schedule:**

1-Day NFPA 13 Chapter 8 "Installation Requirements . . . . . . . . . . . . . . . . . . 10/2/12 1-Day Sprinklers for Dwellings . . . . 10/3/12 1/2 Day Underground Piping for FP 1/2 Day layout and Design of Standbibe 

Bruce Lecair is the NFSA Regional Manager for the Southwest Region. He can be reached at lecair@nfsa.org or Phone: 951.277.3517, Fax: 951.277.3199.

#### **NORTHWEST REGION**

**SUZANNE MAYR** 

Regional Manager



Northwest Fire Sprinkler Saves

According to The Billings Gazette, discarded rags caused a fire at

Rocky Mountain Doors and Sash in Billings. Montana on Feb. 24th. In a news release, Deputy Fire Marshal Jeff Mccullough said that discarded, stained rags in a plastic garbage container caused the fire, which triggered a sprinkler system that extinguished the fire. McCullough said the fire did \$500 damage to the structure, which was unoccupied and is not insured. Billings Fire Department Battalion Chief Ed Regele said there were no injuries.

The Yakima Herald-Republic reported that a small fire broke out at Michelsen Packaging Co. in downtown Yakima. Washington on March 3, but was guickly put out by firefighters. A piece of metal slipped into a paper processor, creating friction and igniting a small fire, Yakima Battalion Chief Mitch Cole said. The fire set off the sprinkler system in the building, which was evacuated. Firefighters quickly put out the flames.

Juneauempire.com reports that at 11:13 a.m. on Feb 29th, Capital City Fire and Rescue responded to a fire sprinkler activation on Crow Hill Drive in Juneau, Alaska. Investigators found the sprinkler activated due to a cooking fire. The fire was extinguished by the fire sprinkler system before firefighters arrived.

Suzanne Mayr is the NFSA Regional Manager for the Northwest Region. She can be contacted at mayr@nfsa.org or 3411 North 19th St. Tacoma, Washington 98466, phone: 253.208.8467. **(** 



#### **FUTURE NFSA ANNUAL SEMINAR SCHEDULE**

**NFSA Annual Seminar** and North American Fire Sprinkler Expo<sup>™</sup>

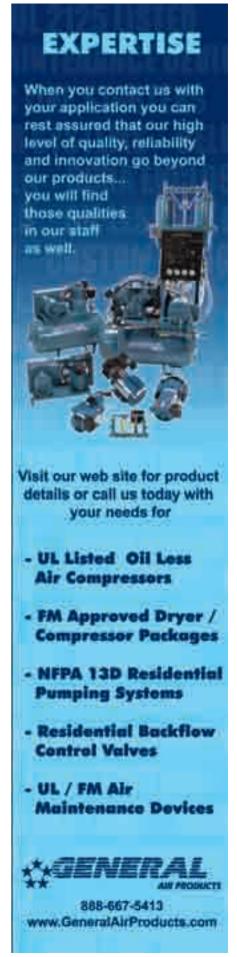
Caesar's Palace Las Vegas, Nevada April 4 - 6, 2013

**NFSA Annual Seminar Atlantis. Bahamas** 

May 8 - 10, 2014

**NFSA Annual Seminar** & Exhibition

**Hilton Bonnet** Creek Resort Orlando, Florida **April 30 -**May 2, 2015



### **HO NEWS**

# Charlie Barnett Receives NFSA's Technical Service Award

During this year's Annual Seminar held at the Los Cabos Hilton in Los Cabos, Mexico, Charlie Barnett was announced as this year's recipient of the Technical Service Award. Since Charlie was unable to make the trip to the Annual Seminar to receive the award in person, the presentation was made at the Hilton Baltimore on June 1st during a meeting of NFSA's Board of Directors.

Charlie was Manager of Research & Development for the "Automatic" Sprinkler Corporation of America, and represented them on NFSA's Engineering and Standards Committee from 1979 until his retirement in 1997. An electrical engineering graduate of the University of Minnesota, he was a member of the UL/FM/NFSA Standards Review Committee and the USTAG/ISO/TC21/SC5, and served terms as chairman of both groups. He was first nominated to serve as an NFSA representative to the NFPA 13 Committee in 1979, and held that position until the time of his retirement. He also served on NFPA technical committees relating to the use of wet chemical extinguishing systems, and was known for a number of advances in that area as well.

Charlie was very grateful in his acceptance remarks.

#### Introducing the 2013 NFSA Annual Seminar and North American Fire Sprinkler Expo™

The National Fire Sprinkler Association (NFSA) is very pleased to announce that in conjunction with its Annual Seminar being held April 4 - 6, 2013 at Caesars Palace in Las Vegas, it is partnering with the Canadian Automatic Sprinkler Association (CASA) and the newly formed Mexican Fire Sprinkler Association (AMRACI) to host the first ever North American Fire Sprinkler Expo™.

While only in the preliminary stages, planning for the continental event being billed as the NFSA Annual Seminar and North American Fire Sprinkler  $Expo^{TM}$  is already underway. Tentative schedul-



Pictured are (left to right) Kevin Ortyl, Chairman of NFSA's Awards Committee, Charlie Barnett, and NFSA's President Russ Fleming.

ing will bring AMRACI, CASA and NFSA members to the conference hotel for general meetings of their respective memberships, followed by the opening of NFSA's Annual Seminar, which is expected to include all the pageantry to which the fire sprinkler industry has become accustomed over the years. Of the conference programming, registrants can expect plenary and workshop breakout sessions to bring sharp focus to topics of vital importance to fire sprinkler contractors in all three countries.

Commenting on his vision for the event, Russell Fleming, NFSA President, said, "I am absolutely delighted that both CASA and AMRACI have agreed to partner with NFSA to host what will be the first ever North American Fire Sprinkler Expo™. By bringing together fire sprinkler industry interests from all over the continent for the NFSA Annual Seminar and North American Fire Sprinkler Expo™, for the very first time in the history of the industry we will have created a unique opportunity for contractors, suppliers and manufacturers from all over the continent to meet in one place to network, conduct business, discuss issues of common inter-

est and to learn from the industry's foremost authorities."

While attending NFSA's 2012 Annual Seminar recently held in Los Cabos, Mexico, Michael McDaniel, newly elected President of AMRACI said, "Our board of directors were thrilled with NFSA's invitation to partner with them and CASA in sponsoring the first North American Fire Sprinkler Expo™ and look forward to its prospects with high enthusiasm. As a fledgling organization with a mission similar to both NFSA and CASA, we see this event as an excellent opportunity to bring the three organizations closer together in a common goal and to provide enhanced services to our respective memberships."

John Galt, President of CASA, whose membership in large part are no strangers to NFSA's Annual Seminar, said, "With the recent formation of AMRACI and our long, documented history with NFSA, the timing could not be better for the partnering of the continent's three major fire sprinkler organizations to host the first ever North American Fire Sprinkler Expo™. CASA has

been conducting an Annual General Meeting similarly formatted to NFSA's Annual Seminar & Exhibition for years, which has always been strongly supported by NFSA members, and now, with this landmark event being held in Las Vegas, it's created the perfect opportunity for the fire

sprinkler industry throughout North America to demonstrate its solidarity on the mission of saving lives and property from the ravages of fire."

Word of the groundbreaking event is already starting to spread and is beginning to create a tremendous amount of excitement throughout the fire sprinkler industry. With expectations high for a record attendance, manufacturers, suppliers and service providers to the fire sprinkler industry are lining up to reserve booth space for the show. Interested vendors should contact show management Exhibit Promotions Plus at nafse@ epponline.com. That's April 4 - 6, 2013 at Caesars Palace in Las Vegas, Nevada for the first ever North American Fire Sprinkler Expo™. Mark the dates and make plans now to be there.

#### NFSA Announces 2012 Sprinklerman™ Schedule

Check the dates and location. In your area? Please come by and join us. We often are awarded complimentary tickets. If you are interested in attending any of the games, please contact Nicole Sprague at sprage@nfsa.org.

#### July 23, 2012

Somerset Patriots, Somerset, NJ

#### July 25, 2012

Hudson Valley Renegades, Wappingers Falls, NY

#### August 10, 2012

Everett AguaSox, Everett, WA

#### August 22, 2012

New Britain Rock Cats - New Britain, CT

#### August 26, 2012

Lowell Spinners, Lowell, MA

#### August 30, 2012

Somerset Patriots, Somerset, NJ 🗖

#### **NFSA at NFPA**

NFSA staff made an impressive presence at the NFPA show in Las Vegas on June 11-14th. The NFSA booth was a hub of activity as Director of Membership David Vandeyar conducted live interviews of both NFSA members and regional managers. The booth was used to promote both NFSA and IFSA and featured video feeds of our Technical Tuesday onlines and a continously running promotional slide show display. NFSA Regional Managers were all on-hand and made use of the opportunity to hold meetings to discuss how to better serve our members. Many of our NFSA staff either presented or sat on committees. The show was well-attended and our staff worked tirelessly to make sure everything went smoothly and ran according to plan.



#### Viking Corporation Welcomes New National Technical Representative

Viking Corporation is pleased to announce that **Bryan Berkley** has joined the company as a new National Technical Representative effective May 1, 2012. In this role, Bryan will be traveling throughout the Northeastern United States providing Viking product support, technical assistance and product specifications to architects and engineers.

Berkley comes to Viking with a sprinkler contracting background, most recently with SimplexGrinnell. Bryan's 13 years of experience designing various types of fire protection including sprinkler systems, fire pumps, foam and clean agent systems will provide him the excellent foundation needed to work with the A&E community in the Northeast corridor.

Berkley has a Fire Protection Engineering degree from Delaware Tech and maintains his NICET Level IV (senior engineering technician) certification in sprinkler system design. He currently lives with his family in Newark, Delaware.

For more information please visit www. vikinggroupinc.com or call 800-968-9501.

#### In Memoriam

**Earl Franklin Lorence Sr.**, 81 years old, of New City, New York passed away peacefully at his home on May 21, 2012. Earl was born in Buffalo, NY in 1931 to Alvin and Ella Lorence. He served in the United States Air Force during the Korean conflict and graduated from the Erie County (NY) Technical Institute, as well as the Erie County (NY) Police Academy in 1956. Earl served at the Erie County (NY) Sheriff's Department as Detective Sergeant through 1964. He was also an instructor for the Erie County Police Academy.

Along with his wife, Carole, Earl founded Inter County Alarm Systems in 1969. Earl was an NFSA member since 2003, the year he and Carole founded Inter County Testing Services. He was also a proud member of the Rockland County Police Chiefs Association, Rockland Business Association, Rockland County Police Steuben Association, Emerald Investment Club American Legion Post 1682, New City, New York, and National Burglar and Fire Alarm Associations, Society for Fire Protection Engineers. Earl is survived by his beloved wife of 59 years, Carole; his devoted children, seven grandchildren, brother and sister-in-law, and nieces and nephews. Donations in Earl's memory may be made to Rockland County, New York Meals on Wheels program and United Hospice of Rockland.



#### LIVE AND ON DEMAND VIDEO

#### www.nfsa.tv

The Training and Education component of NFSA.tv is a totally new and advanced training format – live video training sessions. NFSA seminars, given by world-class NFSA instructors and delivered to the participant's computer or training room screen. In a "virtual classroom" format where the participant will see the instructor and the material as though they were sitting in the class room. Immediate live interaction will be provided and dynamic visuals will make this a learning experience of the highest quality that the web can deliver.

## SPRINKLING OF NEWS

# ■ Viking's New Residential Sprinkler Provides Lowest Achievable Flow Rates

Viking Corporation has added a new 3.0 (43) K-Factor recessed pendent to its Freedom® line of residential fire sprinklers. With the lowest achievable flow rates for its UL Listed coverage areas, the VK470 pendent sprinkler is optimal for any residential fire sprinkler system where the available water supply is a concern.

With its smaller K factor and low flow and pressure requirements, the VK470 may provide cost savings by enabling reduced pipe sizes, a smaller meter, or even the elimination of a tank and pump. The new sprinkler is cULus Listed for 12 x 12 ft (3.7 x 3.7 m), 14 x 14 ft (4.3 x 4.3 m), and 16 x 16 ft (4.9 x 4.9 m) room sizes. In each of these coverage areas, the VK470 provides the lowest possible flow rate for NFPA 13D and 13R residential systems requiring a 0.05 gpm/ft2 density design.

The new VK470 sprinkler has a & in (15 mm) NPT thread size and is available in 155°F (68°C) and 175°F (79°C) temperature ratings. It is offered in several standard finishes including white, ivory, chrome, and black as well as a nearly unlimited variety of custom colors. The VK470 replaces Viking's existing VK435 sprinkler, which has now been discontinued.

For more information, visit www.viking-groupinc.com or call 800-968-9501.

#### ■ ERICO Offers a Faster, Easier Way to Restrain Branch Lines in Fire Sprinkler Systems

Traditional methods for installing branch line restraints in fire sprinkler systems are cumbersome and time-consuming. Contractors often cut (and re-cut) threaded rod to precise measurements to restrain the sprinkler pipe with a loop hanger and surge restraint. Traditional methods also commonly require five or more parts per restraint.

To avoid these labor-intensive methods, ERICO developed the Branch Line Restraint System, part of the CADDYR line. Ideal for restraining 1" (25 mm) through 2" (50 mm) branch lines, this system is significantly faster and easier to install

than current methods.

It attaches directly to steel bar joists, I-beams or purlins, as well as concrete and wood structures. The hardware is installed with only one tool, a 5/16" (8 mm) socket drill driver, which provides significant labor savings. It features a simple, two-step installation process, allowing a time savings up to 80%.

Unlike most solutions that only accept 3/8" threaded rod, the Branch Line Restraint System has a swivel attachment that can be rotated to accept 3/8" (M10) or 1/2" (M12) threaded rod. This allows greater restraint distances from the pipe to structure with 1/2" (M12) threaded rod.

The system meets the requirements of NFPAR 13, making it ideal for new construction applications. The system is cULus Listed and FMR Approved, and has been pre-approved by the state of California (OSHPDOPA-2629-10).

For more information, visit www.erico.

#### ■ Croker to Distribute Quikcoup Grooved Products

The Croker division of Fire-End & Croker Corp. is proud to announce their exclusive master distributorship with Modgal Metal Ltd. for their line of Quikcoup Grooved Products. Modgal manufactures a complete line of grooved products that includes a rigid single singe coupling offering a faster and more efficient means of connecting pipe.

Contact Douglas Loew at Croker for more information regarding the Quikcoup product line at 1-800-759-3473, or Bob Orth at Croker Ohio at 1-888-811-0688.

#### ■ AFCON Announces The 411

The first and only patented longitudinal sway brace fitting, The 411, has exclusive visual proof of proper installation, which is verified when ears touch. This eliminates the confusion with improper installation of pipe clamps and prevents problems associated with over tightening.

UL/FM through 12" pipe - view at www. afcon.com.



To David Vandeyar:

Please extend my heartfelt thanks and appreciation to all at NFSA from the Chafin family for a most delightful stay at Los Cabos, Mexico. The facility was magnificent, the hotel staff and the NFSA staff were both on top of everything and available for every request. In particular, I thank all who were involved in selecting me for the Golden Sprinkler Award, a selection that I will treasure forever. The award became even more special by having all of my family there and treating them like royalty. You have made me a hero.

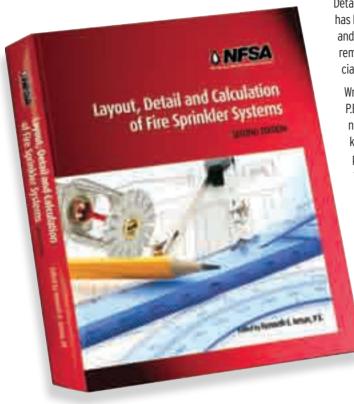
This was a re-assembling of the group for the first time in a long time and I enjoyed the reunion. Most of my dear friends are members of the NFSA and the annual seminars are a delightful way of renewing acquaintances and picking up new ones. This year was especially significant because my sons and daughter met interesting people that they really enjoyed. It also opened their eyes into what the NFSA is all about and what I was doing in my life while they were growing up. All good stuff!

I had several requests for a copy of my speech, which I am sending to those who requested a copy (after I write it, I don't have it on paper yet) and I will email a copy to you in case you would like a copy as well. Again, I appreciate all of the efforts of the entire NFSA staff in making this a stay that will be long remembered in the Chafin family.

Regards, Claude L. Chafin

# RESOURCE CENTER

## 2nd Edition of Layout, Detailing and Calculation of Fire Sprinkler Systems



The NFSA announces the publication of the 2nd Edition of its popular textbook, Layout, Detailing and Calculation of Fire Sprinkler Systems. This newly revised hardcover textbook has been updated to reference the 2007 and 2010 editions of NFPA 13 with more examples and student exercises and new chapters on contract issues and stocklisting. This text remains the most complete book ever written for the fire sprinkler engineering technician and it's available now!

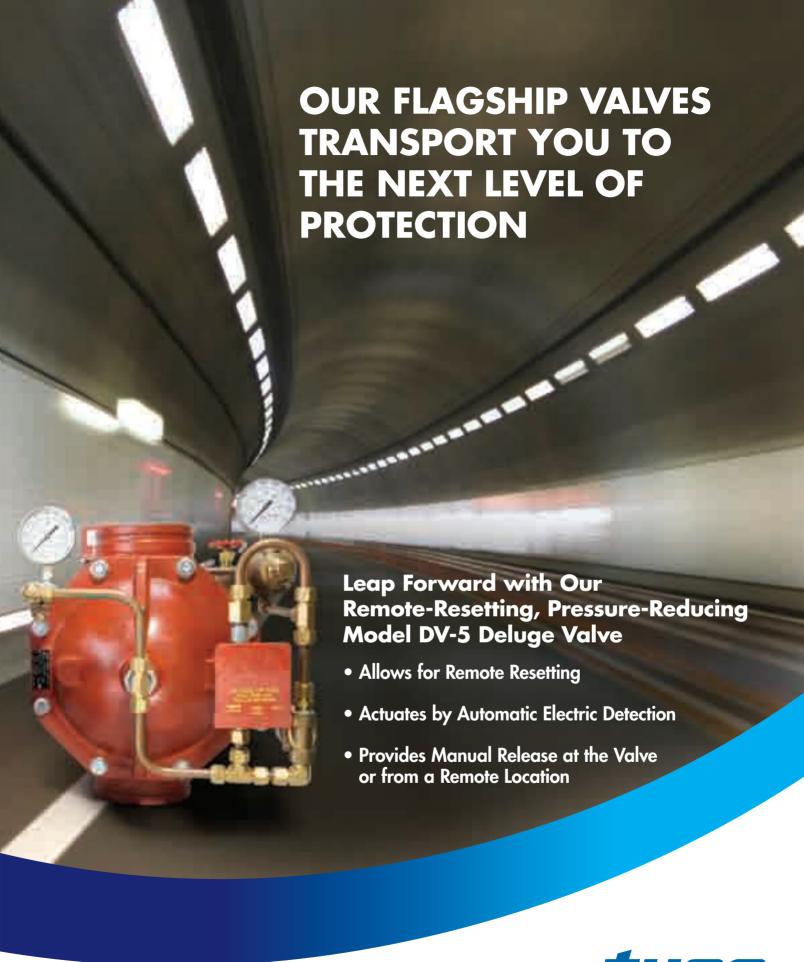
Written by the NFSA Engineering Department staff and edited by Kenneth E. Isman, P.E., Vice President of Engineering, this text covers every aspect of determining the necessary details for a fire sprinkler system including: hazard classifications, sprinkler spacing, hanger and brace requirements, hydraulic calculations, water supplies, pumps and tanks. The text also contains a review of basic math and physical science that is helpful in understanding the scientific principles behind the requirements that need to be followed.

This text makes an excellent self-study guide for the NICET Automatic Sprinkler Layout and Detail certification program and covers all of the work elements necessary to achieve Level 2 certification and many of the elements needed to achieve Level 3 and Level 4 certification. Even if you are not studying for a NICET exam, this text makes an excellent self-study guide for anyone wanting to know more about fire sprinkler systems.

The text retails for \$95 (plus S&H) to members of the NFSA and \$145 for non-members (plus S&H). However, as an extra added bonus, to reward the people that purchased the first edition of the book, if you clip Ken Isman's picture out of the 1st Edition back cover flap and send it back to us with your order (mail orders only, no fax orders for this offer), then you can take another \$10 off the price of a single book (\$70 + S&H for members and \$120 for non-members). To get your book, fill out the following form and return it with your payment.

NAME					
COMPANY					
STREET ADDRESS					
CITY		STATE	ZIP		
COUNTRY	PHONE	E-MAIL			
MEMBERS1 x \$70	+ Ken's picture = \$	NON-MEMBERS1 x \$120 + Ken's picture = \$			
MEMBERS1 x \$80 = \$ 1 x \$130 = \$					
+S&H: (\$10 book) + Sales Tax: (NY only based on destination) = Total: \$					
☐ Enclosed is a check or money order, or ☐ Please charge my: ☐ AMEX ☐ MASTERCARD ☐ VISA					
CARD NUMBER		EXPIRATION DATE			
NAME AND ADDRESS OF CARDHO	LDER IF DIFFERENT FROM ABOVE				
SIGNATURE OF CARDHOLDER					

56







# Fire or accidental sprinkler activation, the business needs to be protected.

Fire sprinkler systems are designed to minimize fire damage and protect places and people where they live and work. But if they don't operate as expected, the results can be costly and tragic.

With System Sensor pressure switches, if a sprinkler head is activated in a wet, dry, deluge, or pre-action automatic sprinkler system, a signal is sent to the fire alarm control panel or notification device. This enables personnel to respond quickly, minimizing damage from fire or the water used to put it out.



For over 25 years, System Sensor has provided innovative products that save lives and protect property. To learn more about our pressure switches or our complete line of sprinkler monitoring products, visit systemsensor.com/**wf**.



