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INSIDE THIS ISSUE:

- Sprinkler Temperature Ratings
- Exposure Protection Systems and Water Curtains
- What's Behind NFSA's Training
- Using Partial Residential Systems to Protect Lightweight Construction

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Proudest Achievements

John A. Viniello

I've been asked since my retirement announcement was made public what I consider to be my proudest achievements in the 28 years that I have served as your President. In addition to the staff that has been assembled which, as everyone knows is "The A-Team," the people that I have met in this industry and the lifelong friendships I have made make me very proud. The list is far too long to single out individuals. However, I would be remiss if I didn't acknowledge those who have served as Chairmen of the Board since 1984. These men gave unselfishly of their time to help make this industry what it is and what it will continue to be for future generations. Never forget their contributions, as they are many. As they say "we've come a long way baby" from the early 80s. The future is bright. The worst days of the recession are behind us and you will begin to see business conditions improve. I predict in five years we will see sprinkler shipments exceed 50 million in the U.S. alone. So get involved at the national or local level. Don't sit on the sidelines! NFSA needs your input, for without you, NFSA would have nothing. 🇺🇸



John A. Viniello



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1986 - 1990	Michael Friedman <i>A.C. MacDonald Company</i>
1990 - 1994	Kevin T. Fee <i>Reliable Automatic Sprinkler Company</i>
1994 - 1998	Claude Chafin <i>Security Fire Protection</i>
1998 - 2000	William Oliver <i>Oliver Sprinkler Company</i>
2000 - 2002	Tom Groos <i>The Viking Corporation</i>
2002 - 2006	Aus Marburger <i>Fire Protection Industries</i>
2006 - 2008	Wayne Gey <i>Wayne Automatic Fire Sprinklers</i>
2008 - 2012	Gregg Huennekens <i>United States Alliance Fire Protection</i>

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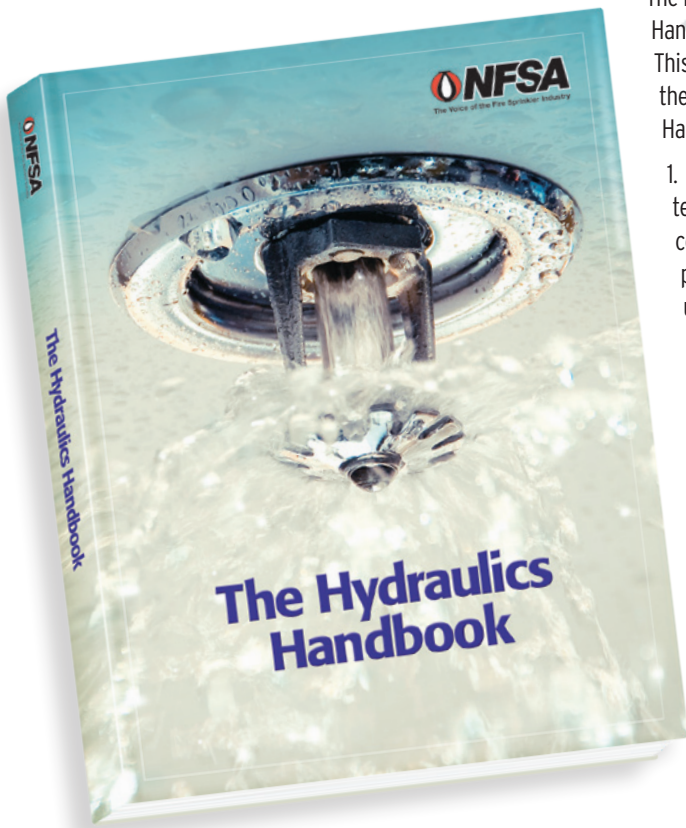
calendar

Mar 01	Inspection, Testing & Maintenance for the AHJ (SG)	Raleigh, NC
Mar 06	Inspection and Testing for the Sprinkler Industry	Apple Valley, MN
Mar 06	Inspection, Testing & Maintenance for the AHJ	Pataskala, OH
Mar 06	Pumps and Standpipe Systems	On-Line
Mar 07	Hydraulics for Fire Protection	Pataskala, OH
Mar 08	Sprinkler Protection of Special Storage	Pataskala, OH
Mar 13	Hydraulics for Fire Protection	Winston-Salem, NC
Mar 13	Inspection, Testing & Maintenance for the AHJ	Louisville, KY
Mar 13	Inspection, Testing & Maintenance for the AHJ	Raleigh, NC
Mar 14	Plan Review Procedures and Policies	Winston-Salem, NC
Mar 20	NFPA 20 and NFPA 14 for High-Rise Buildings	ON-LINE
Apr 03	Hanging, Bracing and Protection of Standpipe System Piping	ON-LINE
Apr 10	Inspection, Testing & Maintenance for the AHJ	San Francisco, CA
Apr 10	NFPA 13 Overview	Willoughby, OH
Apr 12	ITM for Water Based Fire Protection	Willoughby, OH
Apr 12	Inspection, Testing & Maintenance for the AHJ	Sacramento, CA
Apr 17	Manual Standpipe Systems	ON-LINE
Apr 24	Hydraulics for Fire Protection	Grand Chute, WI
Apr 24	Inspection, Testing & Maintenance for the AHJ	Richmond, CA
Apr 25	Plan Review Procedures and Policies	Grand Chute, WI
Apr 25	Sprinklers for Dwellings (NFPA 13D)	Richmond, CA
Apr 26	Underground Piping/Standpipe Systems	Richmond, CA
May 08	Dry Standpipe Systems	ON-LINE
May 08	Inspection, Testing & Maintenance for the AHJ	Oklahoma City, OK
May 22	Horizontal Standpipes and Lateral Piping	ON-LINE
Jun 05	Acceptance Testing of Standpipes	ON-LINE
Jun 12	Inspection, Testing & Maintenance for the AHJ	Portland, ME
Jun 19	Periodic Inspection, Testing and Maintenance of Standpipe Systems	ON-LINE
Jul 11	Inspection, Testing & Maintenance for the AHJ	Portland, ME
Jul 13	Inspection, Testing & Maintenance for the AHJ	Portland, ME
Aug 08	Inspection, Testing & Maintenance for the AHJ	Indianapolis, IN
Sep 11	Residential Sprinklers Homes to High-Rise	Dayton, OH
Sep 12	Fire Pumps for Fire Protection	Dayton, OH
Sep 13	Hydraulics for Fire Protection	Dayton, OH
Oct 08	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.

NFSA's New Hydraulics Handbook is Here!

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:



1. 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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At A Glance

David J. Vandeyar

If you have been staying abreast of news coming out of the Association over the last couple of months, you know there's been quite a bit of activity.

In the Jan/Feb issue of *SQ* we saw a farewell address from outgoing, two-term Chairman of the Board, Gregg Huennekens, who reflected on NFSA achievements and industry milestones reached over the years. Thinking back to one of those major milestones achieved just a few years earlier during his first term as Chairman, he rhetorically asked if the stars were in perfect alignment when members of the International Code Council nearly unanimously endorsed fire sprinklers as an essential part of the International Residential Code, making fire sprinkler protection in new one- and two-family homes the rule. This wasn't happenstance, of course, but rather more about years of coalition building between NFSA and other stakeholders to rally on behalf of public fire safety. He also emphasized the important role NFPA 25 enforcement will continue to play in the ongoing success of the fire sprinkler industry; how it helps insulate the fire sprinkler contractor from radical economic decline, such as what is currently being experienced, and how NFSA is ideally positioned to advance NFPA 25 enforcement at the local level well into the next decade.

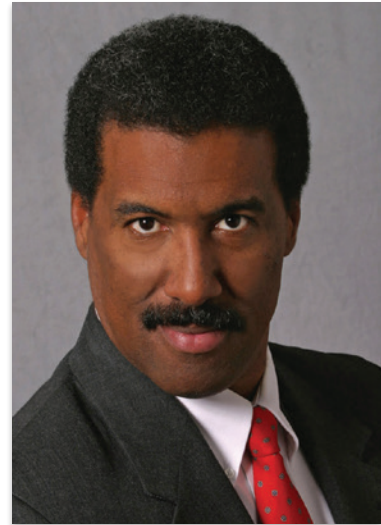
Back in January the Association held elections for a number of positions on

the Board of Directors and SAM Council. Area 7 Director John Kauffman of the Kauffman Company, Area 5 Director Rich Ackley of Dalmatian Fire, Area 9 Director Gene Postma of Western States Fire Protection and Area 10 Director James Boulanger of Patriot Fire Protection, were all re-elected to new 3-year terms.

In SAM Council elections, Mike Berkelhammer of United Brass Works was elected to a 3-year term, joining Gary Johnson of Lubrizol, Cary Nicol of Viking SupplyNet, Don Smith of Chicago Backflow, and Randy Greenslate of FPPI who were all re-elected to new 3-year terms.


By the time this issue of *SQ* hits the streets, NFSA will have already launched its new website. That's right! NFSA is making a huge upgrade in communications technology to provide the membership with even better service. Members are invited to visit the new site, located at the same address, www.nfsa.org, and update their profiles. The new technology incorporated into the site will allow members to update their own contact information, renew membership and make purchases securely online, create blogs, communicate with other members, track CEUs from seminar attendance and lots, lots more.

Looking a little bit ahead to the Annual Seminar in Los Cabos, Mexico, the Awards Committee has announced Claude L. Chafin as this year's Golden Sprinkler



Award recipient. Claude was Chairman of NFSA's Board of Directors from 1994 to 1998. The committee also just announced that Jack Rhodes of Factory Mutual and Chet Schirmer of Schirmer Engineering will be inducted into the Fire Sprinkler Hall of Fame. Earlier in the year, Charlie Barnett was named as this year's Technical Service Award recipient, while Cindy Stellhorn will receive the Leadership in Public Safety Award. All the presentations will be made during the opening session of the Annual Seminar in Mexico. I sincerely hope you are making plans now to be there to congratulate them.

Perhaps the biggest news in the fire sprinkler industry in over a generation is the announcement of John Viniello's retirement as President of NFSA. Yes, after 28 years as President, John notified the Board of Directors of his intention to retire effective March 1, 2012. At the March 2, 2012 meeting of the Board of Directors an election will be held for a new slate of officers. Be sure to stay tuned to NFSA publications and social networks for results as they become available.

At a glance, that's what's happening. 

David J. Vandeyar
Director of Membership & Communications

Area	States	Regional Manager	Area Director
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 (518) 937-6589 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
Mid Atlantic	Delaware, Maryland, New Jersey, Pennsylvania, Virginia, Washington, D.C.	Raymond W. Lonabaugh, NFSA P.O. Box 126 Ridley Park, Pennsylvania 19078 (610) 521-4768 FAX (610) 521-2030	Kent Mezaros Quick Response Fire Protection 77 Pension Road, Suite 5 Manalapan, New Jersey 07726 (732) 786-9440 FAX (732) 786-9443
Southeast	Alabama, Georgia, Mississippi, North Carolina, South Carolina,	Associate Director of Regional Operations-South Wayne Waggoner, NFSA PO Box 9 Andersonville, Tennessee 37705 (865) 755-2956 FAX (865) 381-0597	Ken Brinkley Music City Fire Sprinkler 238 Molly Walton Drive Hendersonville, TN 37075 (615) 826-7450 FAX (615) 826-9680
Tennessee	Tennessee		
Florida	Florida, Puerto Rico	Lorrell Bush, NFSA 2025 Droylsden Lane, Eustis, FL 32726 (352) 589-8402 FAX (561) 327-6366 Cell: (954) 275-8487	Alan Wiginton Wiginton Fire Systems 699 Aero Lane Sanford, FL 32771 Phone: 407.585.3205 FAX: 407.585.3282
Great Lakes	Indiana, Michigan, Ohio, West Virginia, Kentucky	Ron Brown, NFSA 1615 Cypress Spring Drive Fort Wayne, Indiana 46814 (845) 661-6534 FAX (260) 625-4478	Richard A. Ackley Dalmatian Fire, Inc. P.O. Box 78068 Indianapolis, Indiana 46278 (317) 299-3889 FAX (317) 299-4078
North Central	Minnesota, Wisconsin	Bob Kleinheinz, NFSA 509 Dawes Street Libertyville, Illinois 60048 (914) 671-1975 FAX (847) 680-5992	Gregg Huennekens United States Alliance Fire Protection 28427 North Ballard – Unit H Lake Forest, Illinois 60045 (847) 247-4755 FAX (847) 816-0098
Illinois	Illinois	TBA	
Central	Iowa, Kansas, Missouri	Chris Gaut, NFSA 237 East Fifth St. # 135 Eureka, MO 63025 (636) 692-8206 FAX (636) 410-7700	Dennis C. Coleman - Chairman Engineered Fire Protection, Inc. 1615 South Kings Highway St. Louis, Missouri 63110 (314) 771-0033 FAX (314) 664-1619 Stan Shiner - Alternate to the Chairman Fire Protection Systems 4316 Bridgeton Industrial Drive Bridgeton, Missouri 63044 (314) 739-1400 FAX (314) 739-6401
South Central	Arkansas, Louisiana, Oklahoma, Texas	Cynthia Giedraitis NFSA 2013 Oakwood Trail College Station, TX 77845 (979) 324-8934	John Kauffman III Kauffman Company 13225 FM529 – Suite A Houston, Texas 77041 (713) 937-4144 FAX (713) 937-4149
Great Plains	Colorado, Nebraska, North Dakota, South Dakota, Utah, Wyoming	TBA	Gene Postma Western States Fire Protection Company 7020 South Tucson Way, Unit A Centennial, Colorado 80112 (303) 792-0022 FAX (303) 790-3875
Southwest	Arizona, Nevada, New Mexico	Bruce Lecair, NFSA 25417 West Hyacinth Street Corona, CA 92883 (951) 277-3517 FAX (951) 277-3199	Aaron Bennett RCI Systems, Inc. 1220 West Geneva Drive Tempe, Arizona 85282 (480) 894-8711 FAX (480) 894-8740
West	California, Hawaii,		Jack Thacker Allan Automatic Sprinkler Corporation 3233 Enterprise St. Brea, California 92821 (714) 993-9500 FAX (714) 993-5708
Northwest	Alaska, Idaho, Montana, Oregon, Washington	Suzanne Mayr, NFSA 3411 North 19th Street Tacoma, WA 98466 (253) 208-8467	James Boulanger Patriot Fire Protection, Inc. 2707 70th Avenue East Tacoma, Washington 98424 (253) 926-2290 FAX (253) 922-6150
		VICE PRESIDENT OF REGIONAL OPERATIONS Buddy Dewar, NFSA 200 West College Avenue Tallahassee, Florida 32301 (850) 222-2070 FAX (850) 222-1752	DIRECTOR AT LARGE Richard Ray Cybor Fire Protection Company 5123 Thatcher Road Downers Grove, Illinois 60515 (630) 810-1161 FAX (630) 810-0685

Change Orders

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

Extra work is performed on almost every public and private construction project in New York. Many times the extra work is directed through oral instructions by the owner or general contractor. Other times, if you are lucky, a written change order is provided to you.

The procedures associated with performing a change order, however, are totally different in a private project as opposed to a public project.

On a private project, the parties may execute a change order before or after the work is actually performed and the contractor expects to be paid once the work is completed. Oral change orders are common. Payment is expected even when the work is performed based on an oral directive.

On a public project, such as the New York City School Construction Authority (SCA), the municipal agencies are usually extremely slow in resolving extra work and other disputes. As a result, the contractor is forced to perform the work,

without a signed written order, while the public agency addresses the extra work. The courts have held that an oral change order is insufficient to establish a claim on a public project.

In order to protect him/herself, the contractor must follow the contract with the public agency. Usually, especially with the SCA, there is a clause in the contract which requires the contractor seeking compensation for extra work to promptly comply with the SCA's direction to perform such additional work. Failure to comply could result in a forfeiture of the money due for the extra work.

What happens if the contractor is not paid by the public agency for the extra work? The law requires that the contractor provide a detailed, written, verified Notice of Claim within three months after accrual of such claim and commence a lawsuit within one year after the happening of the event upon which the claim is based. The problem is that many times the contractor may not know that there is a dispute regarding the change order until long after the time to submit a verified Notice of Claim has passed. If the public agency is extremely slow in resolving

change orders, the three months will pass without the contractor knowing if the change order was rejected or approved. The municipalities have argued that your damages are ascertainable when you submit your claim for extra work not when it is rejected. As a result, the contractor may not know of a dispute until long after the three months have passed to file a verified Notice of Claim.

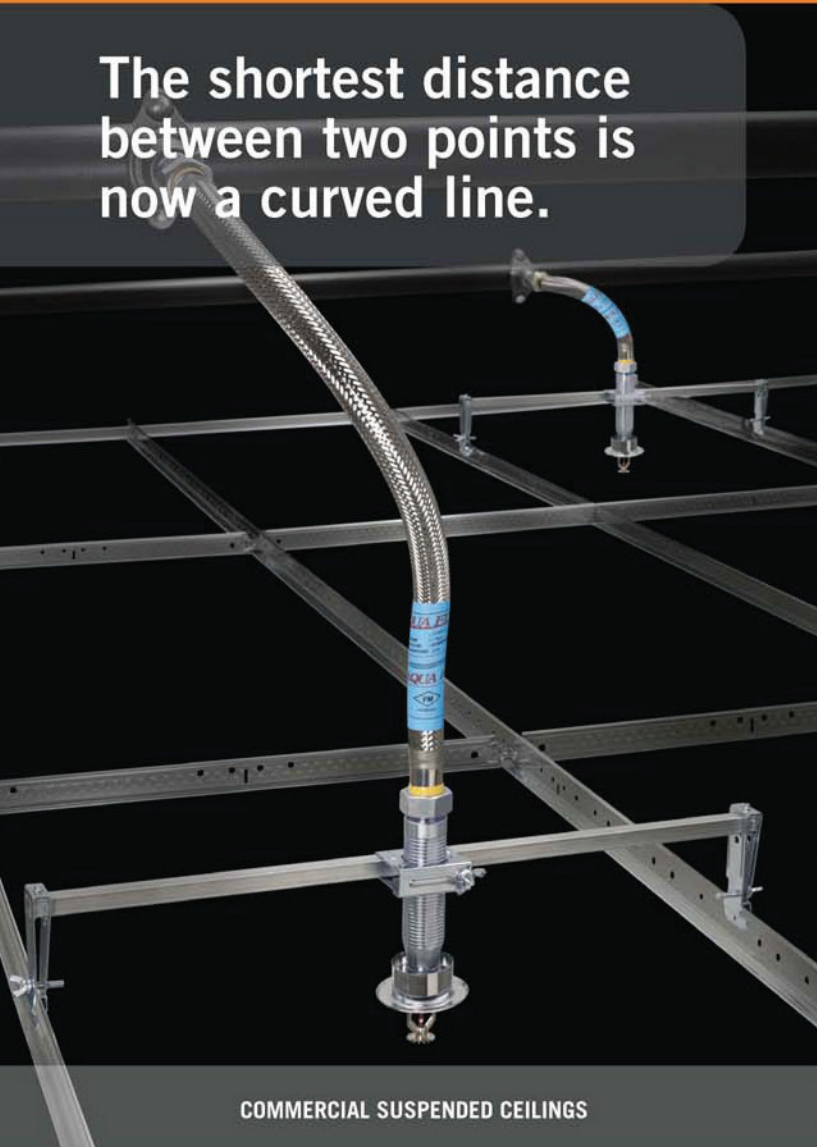
What the contractor should do in order to avoid waiving his/her rights to a claim for extra work is to submit a verified Notice of Claim at the same time he/she first submits their change order proposal. He/She should also keep track of the one-year period of time within which they must commence a lawsuit. Failure to comply with the terms and conditions of the contract may forfeit their rights to the additional work.

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



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By Don Pamplin

I saw a sign that said

“You Should Never Forget What You Can’t Remember”

I learned many years ago in a creative writing class that an “oxymoron” is a figure of speech that combines contradictory terms. They sometimes can be single words such as bittersweet, underdone or typewrite but usually they are combined words like jumbo shrimp, original copy, valuable junk, public secret or progressive conservative. There are thousands of such examples. They can also be complete sentences or statements such as the above sign in that classroom. As a long-serving firefighter and chief fire officer, that sign also means something else to me and tens of thousands of others in the North American Fire Service.

In spite of all the millions of hours they log every year trying to educate people about the danger of fire, especially in their homes, horrible tragedies continue to happen. The listing of these stories never ceases to remind us that people simply don’t pay enough attention to what we are constantly saying and they forget some or all of the basic truths of fire prevention and fire survival.

On Christmas Day in 2011 at approximately 5 a.m., a raging fire engulfed a \$1.7 million dollar 100 year-old Victorian style waterfront home in Stamford, Connecticut that was owned by Madonna Badger, a New York fashion advertising executive. Mrs. Badger and her building contractor friend Michael Borcina (who had been renovating the multi-level home) survived the fire but suffered injuries trying to find and rescue the three Badger children (Lily, age 10 and 7-year-old twins Grace

and Sarah) who died in the fire together with both parents of Mrs. Badger (Lomar Johnson, age 71 and his wife Pauline, age 69). Responding Stamford firefighters tried desperately to get to the trapped victims but were pushed back by the smoke and raging flames. Four firefighters were injured, including a fire captain who received second-degree facial burns.

Stamford, Connecticut fire marshals said that foul play was not a factor but two huge safety errors did contribute to this terrible tragedy. The house fire was ignited by a bag of fire embers from a Yule log that had been removed from the fireplace by the building contractor because the children were concerned that Santa would be burned coming down the chimney.

Mr. Borcina placed the fireplace embers in a bag and left it leaning against an exterior wall inside the home at approximately 3 a.m. It is believed that this was the cause of this devastating fire.

The second contributing error was the fact that the home may not have had working smoke alarms even though there were plans to have a hard-wired system installed. In addition, Stamford Mayor Michael Pavis said the home did not have a certificate of occupancy which it needed because of the renovations and should not have been occupied. Mrs. Badger had been waiting for a final inspection (to get an occupancy permit) at the time of the fire, although the family had been living in the house for about a year. Investigators were also checking whether Mr. Borcina’s

construction company had proper construction permits and the status of the construction work being done was in accordance to those permits.

Commenting on this fire, Tom Olshanski, a spokesman for the United States Fire Administration said that it is unnecessary to remove embers right away. He stated that the golden rule of home fire safety requires that burned embers from a fireplace should never be removed from that safe enclosure for at least 24 hours, adding that some new research has suggested you should wait three days before removing fireplace embers.

In addition, you should never remove fireplace embers, place them in a combustible bag and leave them somewhere in the home.

Year after year, after year, after year, annual fire statistics for the United States clearly show that almost two-thirds of all home fire deaths occur in residences where there are no smoke alarms installed. Even when there are smoke alarms in the home, the batteries have not been replaced and the smoke alarms are inoperable. In addition, there have been

>> CONTINUED ON PAGE 12



Don Pamplin

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

numerous home fire deaths throughout North America where batteries have been taken out of smoke alarms so they could be used in various Christmas toys. The child plays with the toy and then dies in a fire later that night! What are parents thinking?

It's interesting to note that after this fire, various stores in Stamford had "a run on fire extinguishers like you wouldn't believe". That's a big mistake. Families are constantly warned by the Fire Service that they should not try and fight a fire when they have been alerted by a smoke/fire alarm that there is a fire somewhere in their home. The most important function for the family is to quickly exit the home in accordance to a pre-determined fire-escape plan. In most home fires, you have less than five minutes to get out. Unfortunately, in spite of millions of hours of fire department public education and fire safety work, most homes in America do not have a properly thought-out fire escape plan that they occasionally prac-

tice or review.

To make matters even worse, some homebuilders across North America are offering free fire extinguishers in their new homes as a reason why they don't need to put fire sprinklers in those same occupancies. They state, "When the smoke alarm sounds, you can quickly put the fire out with the fire extinguisher so there's no need for expensive fire sprinklers!" Don't believe that bad advice! Do what the fire service is urging you to do:

- Have the proper type of smoke, fire and carbon monoxide alarms installed. See my Nov-Dec, 2011 SQ article to help you make the right decision for your home;
- With your whole family involved, make a fire escape plan that you will practice and execute when the smoke/fire alarms are activated by a fire in your home;
- Don't try to fight the fire with a fire extinguisher. Get your family out immediately;

- Have every member of your family all meet at a pre-arranged place outside your home so you can keep track of whose missing;
- Make the call to the fire department after you are out your home.

And if you really want to solve the problem the best way possible - install a quick-response residential fire sprinkler system in your home. You and your family will be saved and there will be minimal fire and water damage only in the room or area of fire ignition. The rest of the house and everything you cherish and value will be protected and saved.

Unfortunately, State law in Connecticut (Bill SB726) prohibits any local jurisdiction from adopting stricter standards than the Connecticut State Building Code which excludes fire sprinklers in one-and-two family dwellings.

Bill SB726 was supported and influenced by the Connecticut home building industry and even though there is some talk of a future regulatory study, don't hold your breath waiting for a reversal of this killer legislation.

It's only a matter of time when more tragic deaths and unnecessary destruction happens in Connecticut and in other states where local governments in those states are prevented from using fire sprinklers to properly protect their citizens. And since those State governments are essentially saying that the only way you can fight fires in those local jurisdictions is with muscle and hose, then that's an unfunded mandate being imposed on those local governments who don't have the necessary funding to build bigger full-time fire departments to adequately protect the taxpayers in those communities.

Can you imagine the state oxymoron responses to that? ①

Don Pamplin is the former NFSA Regional Manager for the Pacific Northwest and can be reached with comments and suggestions at firecon@shaw.ca



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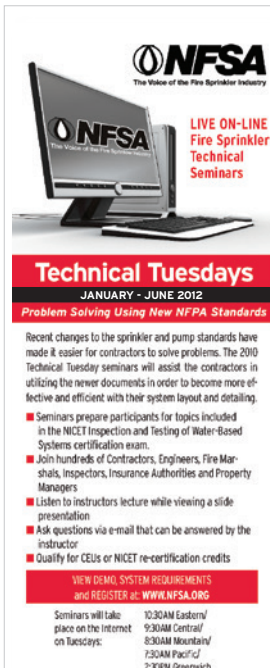
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MARCH 6, 2012

Pumps and Standpipe Systems - Intermediate - Kenneth E. Isman, P.E.

This seminar will focus on selecting fire pumps to match the flow and pressure demand requirements of the standpipe system without over pressurizing portions of the system. This will include tall buildings with significant elevation head to overcome and buildings in seismic zones with two or more water supplies at different pressures. Where high pressure is a concern, the option of splitting the building into multiple vertical zones will be explored by using multiple pumps and by using a single pump with the master pressure reducing assembly permitted by NFPA 14.

MARCH 20, 2012

NFPA 20 and NFPA 14 for High-Rise Buildings - Advanced - James D. Lake

NFPA 20 and NFPA 14 each have different requirements for how to provide water supplies for standpipe systems in high-rise buildings. This seminar will show how the requirements of each of these standards can be put together to form a comprehensive standpipe system that meets both NFPA 20 and NFPA 14.

APRIL 3, 2012

Hanging, Bracing and Protection of Standpipe System Piping - Basic/Intermediate - Victoria B. Valentine, P.E.

Protecting the piping for any fire protection system, including standpipe systems, is important. One aspect of this is proper hanging and gravitational support of the piping system. Another aspect is protection from environmental conditions such as freezing or earthquakes. In addition, protection from mechanical damage and fire scenarios will be discussed.

APRIL 17, 2012

Manual Standpipe Systems - Basic - Jeff Hugo, CBO

This seminar will cover the rules of installing and designing manual standpipe systems. It will cover the definitions of manual dry and wet systems and where these systems can be used, as well as some of the critical components of the system. There will also be a discussion of simple calculations and examination of the water supply for these systems from local fire department equipment.

MAY 8, 2012

Dry Standpipe Systems - Basic - Kevin J. Kelly, P.E.

There are three different types of dry standpipe systems: automatic-dry systems, semi-automatic-dry systems, and manual-dry systems. This seminar will define each of these systems, discuss how they work, when they should be selected, and cover the special design and hydraulic calculation requirements for each of the dry systems.

MAY 22, 2012

Horizontal Standpipes and Lateral Piping - Intermediate - Kenneth E. Isman, P.E.

Horizontal standpipes are treated differently than lateral runs of pipe to standpipe outlets by NFPA 14. This seminar will cover the differences between these two situations for both layout considerations and hydraulic calculations. In addition, this presentation will cover the different protection rules for these different piping situations.

JUNE 5, 2012

Acceptance Testing of Standpipes - Intermediate - Karl Wiegand, E.I.T.

System acceptance tests are important for making sure that a newly installed system is working correctly and establishing a baseline of performance for all future system tests. This seminar will serve as a walk through for acceptance test requirements of NFPA 14.

JUNE 19, 2012

Periodic Inspection, Testing and Maintenance of Standpipe Systems - Basic - Bernie Arends

Standpipes are often neglected in the periodic inspection, testing, and maintenance of fire sprinkler systems. However, this key component is crucial to the firefighting tactics in multi-story structures and can dramatically impede efforts if the standpipe system is not functioning properly. This seminar will review the requirements of NFPA 25, Chapter 6, that deal with the upkeep for standpipe systems to operate effectively.

NFSA Seminar Development - What's Behind Our Training

By James D. Lake

NFSA has been developing and delivering high-quality training and education events for decades. No other organization has the concentration of staff expertise that your association brings to bear on the development of training seminars. From technical expertise on the governing codes and standards to experience as Authorities Having Jurisdiction, the staff that serves you has more talent and time logged in support of the sprinkler industry than any other association or training provider.

All of this time and talent is focused on serving you as a member. We are always interested in delivering training opportunities that meet your needs as a member. As Vice President of Training and Education I am keenly interested in what your needs are.

In this article I thought it would be helpful to walk you through what goes into the development side of NFSA training.

First, each learning event is planned in response to the identified needs of a target audience. Whether it is information from contractors, design technicians, AHJs or state administrators; the learning needs are identified and documented and continually reviewed and updated. We do this through our Regional Operations network and through our Training and Education personnel.

The intent here is to develop the rationale and planning for each learning program so that the learning objectives can be clearly stated, understood and assessed. When it comes to distance learning, such as on NFSA.tv, needs analysis also includes inquir-

ry into the most cost-efficient and appropriate delivery system resources required by the distance learner.

A Seminar Information Sheet is then developed, which is written documentation that shows the relationship between the needs and course outcomes/objectives. This document also puts together the proposed schedule for the training event. It helps guide the developer through the building of the seminar, keeping them focused on the learning objectives and determining what instructional methods most appropriately attain the goals. These methods include lecture, discussion, activity, video, homework, etc.

As the development process continues we identify and assess the potential constraints and parameters that may affect the conduct of the learning event. An effective training plan must include this step, as consideration has to be given to the necessary prerequisites, seminar timing, funding availability, legal impediments, instructor availability and geographic location. These variables are present in almost all seminars and can have a big impact on the success of the training both for the trainee and NFSA.

It is then that we begin to develop the actual training event, which brings a separate set of decisions.


These decisions include what is the proper medium for delivery (in-class or on-line), the proper presentation tool (PowerPoint or video or written document), what support materials such as photos, data sheets, plans, forms, documents, codes and standards will enhance the learning experi-

ence and provide a more durable learning event. Finally, how do we assess that learning has occurred? Sometimes it's through a quiz after the seminar, or it could simply be by assessing participation during the seminar.

Either way, identifying the assessment tool is an important part of the development process.

Whether it is a one-hour on-line program on NFSA.tv or a three-day in-class seminar, the process is the same and the documentation is filed for future reference and assistance.

What is most important in the process is identifying the needs of our audience. It is here that we rely heavily on the input from our members. You are our best source for identifying learning needs, whether they are the needs of your company, state association or chapter, local municipality or state.

NFSA is ready to support you in your training needs. Please do not hesitate to contact us to discuss how we can meet those needs. Contact me any time at 617.372.6214 or lake@nfsa.org and let's talk training! 



James D. Lake

Vice President
of Training and
Education

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

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



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**PLEASE MARK YOUR CALENDARS AND PLAN TO JOIN US AT THE NFSA
ANNUAL SEMINAR IN BEAUTIFUL LOS CABOS, MEXICO FROM MAY 3- 5, 2012.
DETAILS ON WWW.NFSA.ORG**



Exposure Protection Systems and Water Curtains

By Kenneth E. Isman, P.E.

NFPA 15 defines “exposure protection” as, “Absorption of heat through application of water spray to structures or equipment exposed to a fire, to limit surface temperature to a level that will minimize damage and prevent failure.” (See section 3.3.9 in the 2012 edition of NFPA 15, similar sections in previous editions.)

Using this definition, you would get the impression that exposure protection systems are not designed to stop the spread of a fire. Instead, the purpose of an exposure protection system as defined by NFPA 15 seems to be to keep some other object cool while the fire burns close to it. It would appear that the goal of the exposure protection system is not to put the fire out or stop the spread of the fire, but to help the object near the fire survive during the fire event while some other system, person or extinguisher puts out the fire.

Although NFPA 13 does not have a definition for exposure protection, it does, at first glance, appear to agree with NFPA 15. The rules in section 7.8 of NFPA 13 that apply to exposure protection systems only apply to outside exposure protection systems that protect the building from fires outside of the building. This would be consistent with the NFPA 15 philosophy that the exposure protection system is not putting water on the fire itself and is not helping to control the fire. Instead, the exposure protection system is spraying water on the building next to the fire in order to keep it cool so that the fire does

not damage the building next to it.

Unfortunately, the rest of NFPA 13 is not so clear about the goal of exposure protection systems, and other NFPA documents cloud the issue as well. Within NFPA 13 and NFPA 80A (Recommended Practice for Protection of Buildings from Exterior Fire Exposures) are references to exposure protection systems that spray on the fire (while also possibly spraying across openings in windows or on doors). These systems are considered exposure protection systems because they control the fire, and therefore stop the fire from getting into the building next door.

Water spray across an opening or onto a vertical surface is frequently called a water curtain. So, the question then becomes, “Is a water curtain an exposure protection system?” The answer to this question, according to NFPA 13, is definitely, “no.” While there is no definition of a water curtain, NFPA 13 contains different installation and discharge criteria for water curtains than it does for exposure protection, which leads to the conclusion that they are different types of systems.

Since people frequently do not know whether to follow the rules for water curtains or exposure protection systems when laying out and calculating a system that includes sprinklers or nozzles to spray across openings in walls or on windows, the specifying engineer needs to be extremely clear when writing the specifications to let people know the design intent. Without clear instructions from the specifying engineer, it is difficult

for the sprinkler contractor to know which set of rules to follow.

This article will not make recommendations as to which way to go in determining whether a system is an exposure protection system or a water curtain. Instead, this article will pull together the rules for each type of system so that the contractor understands what is required once the decision has been made as to which type of system will be installed.

Installation Rules for Exposure Protection Systems

The installation rules for exposure protection systems can be found in Chapters 7, 8 and 22 of NFPA 13. It is not intuitive to think that installation rules would be in Chapter 22 (the Plans and Calculations chapter of the standard), which is one of the reasons we decided to write this article to try and explain all of the rules.

The general installation rules that apply to all exposure protection systems in NFPA 13 are pretty sparse. Section 8.3.4.2 allows sprinklers with k-factors less than

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Kenneth E. Isman, P.E.

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

5.6 to be used in any exposure protection system. Section 22.7 appears to apply to all exposure protection systems from its heading, but in reading through the section, it only makes sense to apply this portion of the standard to outside exposure protection systems designed to protect walls and windows from fires outside the building as described in section 7.8. The one surprising installation requirement in section 22.7 is a sprinkler spacing issue, where the maximum allowable distance between sprinklers protecting a window opening is 8 ft unless the sprinklers are specifically listed to protect a wider opening (see section 22.7.7.2).

Section 7.8 of NFPA 13 applies to exposure protection systems that are mounted on the outside of a building and are intended to protect the building from a fire outside of the building (the fire could be in the building next door, a brush/forest fire, or a vehicle fire). These types of systems can be installed on buildings that are sprinklered and on buildings that are not sprinklered. Note that these are a subset of exposure protection systems and that these rules do not apply to all exposure protection systems. These rules only apply to exposure protection systems installed on the outside of buildings to protect the building from a fire adjacent to the building. Section 7.8 requires the following:

- The goal is to provide protection in one or more of the following ways:
 - Protect the whole wall (typically selected for combustible walls).
 - Protect the openings (usually windows) in masonry walls.
 - Protect the roof.
- A single line of sprinklers is allowed to protect up to two stories of wall or two levels of vertically aligned windows as long as there are no window sills, protrusions or recesses along the wall more than 1-inch in depth that would prevent the water from flowing down the wall. Where sills, protrusions or recesses exceed 1-inch, a row of sprinklers is required for each story or row of windows.
- For wall protection, sprinklers need to

be between 6 and 12 inches from the wall surface and can be up to 8 ft apart (or greater if listed for greater distances between sprinklers).

- For window protection, sprinklers need to be between 7 and 12 inches of the window surface depending on the width of the window (see Table 7.8.8.4).
- For roof protection, open spray sprinklers are permitted to be used when Ordinary Hazard Group 1 rules are followed with deflectors parallel to the slope and a minimum of 18 inches over the roof surface. Upright sprinklers can be positioned at least 6 inches above the peak of the roof with horizontal deflectors and the spacing determined in the plan view (not along the slope).
- NFPA 13 encourages the connection of these systems to automatic water supplies, but the standard also recognizes that the AHJ could approve a manual system fed by a fire department connection or a manual system connected to a water supply with a normally closed valve that is manually opened when the fire occurs. If the fire department connection is used as a water supply, it needs to be located away from the area of the expected fire.
- Each system needs its own independent control valve.
- Sprinklers can be open or automatic, but if open sprinklers are going to be used on an automatic system, detectors need to be used that are suitable for this type of outdoor system.
- Systems with automatic sprinklers in areas subject to freezing need to be either dry-pipe systems or antifreeze systems.
- Each system needs a drain valve on the system side of the control valve except for open sprinkler top-fed systems that are designed to drain on their own.
- Where sprinklers are installed on two adjacent sides of the building to protect against two separate hazards, the

sprinkler system needs to be fed with control valves for each side and two choices are provided for arranging the sprinklers:

- Connect the end of the branch lines with check valves so that one sprinkler around the corner will be fed from the other side (see Figure A.7.8.4.2.1) with the piping pitched to drain the center section between check valves; or
 - Install two separate branch lines for each side with each branch line wrapping around the corner and providing one sprinkler on the other side (see Figure A.7.8.4.2.3).
- Where one exposure hazard affects the protected building, the exposure protection system shall be a single system.
 - Pipe and fittings must be corrosion resistant.
 - If sprinklers with k-factors smaller than 2.8 are used, strainers are required.

Discharge Rules for Exposure Protection Systems

The discharge rules for exposure protection systems are found in section 11.3.2 and 22.7. Section 11.3.2 appears to apply to all exposure protection systems, but does not contain much significant criteria. Section 22.7 has the important criteria for flow and pressure demands, including section 22.7.1, which gives the user two options. Option 1 is to use Table 22.7.1 to determine flow and pressure demands. Option 2 is to get other flow and pressure demands from another source (such as a specifying engineer) and then make sure that those other flow and pressure demands are acceptable to the Authority Having Jurisdiction.

Option 1 (designing the system to meet Table 22.7.1) is only appropriate for exposure protection systems on the outside of a building that are protecting the building from a nearby fire. The table provides minimum densities of water that need to be applied to the vertical surface of the wall depending on the expected sever-

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ity of the nearby fire. The severity of the nearby fire is expressed in terms of a guide number. The higher the guide number, the hotter the nearby fire is expected to be and the greater the density needed to absorb the heat and keep the wall cool. The guide number for any particular situation can be determined using the method shown in NFPA 80A. The following is a summary of the rest of the discharge rules in section 22.7:

- The minimum pressure required at each sprinkler will be the minimum necessary to discharge the minimum density out of the sprinkler against the wall or window, but in no case is the pressure allowed to be below 7 psi.
- When using upright or pendent sprinklers to spray against the wall, only half of the discharge from the sprinkler is allowed to count towards this density. For example, if Table 22.7.1 requires a minimum density of 0.3 gpm per sq ft and an upright sprinkler is being used to achieve this density, the minimum flow required out of the sprinkler (assuming that it covers 80 sq ft of wall) would be 48 gpm ($0.3 \times 80 \times 2 = 48$) rather than the typical 24 gpm that would normally be required for a sprinkler covering 80 sq ft to produce a density of 0.3. This makes sense in that half of the spray will not be against the wall.
- Where closed sprinklers are used, the water supply will need to be capable of supplying all of the sprinklers along an exposure up to a maximum length of 300 ft.
- Where open sprinklers are used, the water supply will need to be capable of supplying all of the systems that would be triggered along a 300 ft length.
- The water supply duration needs to last for at least 60 minutes.

Option 2 is appropriate for other kinds of exposure protection systems. However, NFPA 13 does not contain specific criteria for these systems. There is some information in NFPA 15 on how to design

these systems for certain target hazards. Whether the design criteria from NFPA 15 gets used, or whether some other criteria is used for the design of the exposure protection system is up to the specifying engineer, who needs to communicate this information fully to the contractor in the specifications.

How is the Water Curtain Criteria Different?

Section 11.3.3 of NFPA 13 covers the criteria for water curtains. The sprinklers in a water curtain are designed to discharge 3 gpm for every lineal foot of space that they cover. For example, if sprinklers are spaced 6 ft apart, the sprinkler will need to discharge 18 gpm ($3 \times 6 = 18$) to cover that distance.

The design area for a water curtain using closed sprinklers is calculated based on the familiar formula of 1.2 times the square root of the design area for the hazard adjacent to the water curtain. For example, if the sprinklers next to the water curtain are designed to protect an ordinary hazard group 2 occupancy at 0.2 gpm per sq ft over 1500 sq ft, then the number of sprinklers in the water curtain design area will be those within 46.5 ft (1.2 times the square root of 1500 is 46.476). If the sprinklers are spaced 6 ft apart, this would be 8 sprinklers (46.5 divided by 6 is 7.7 rounded up to 8). If the sprinklers protecting the adjacent occupancy were changed to quick response and the discharge criteria changed to 0.2 gpm per sq ft over 900 sq ft, then the water curtain would need to be designed for all of the sprinklers along 36 ft of the opening (1.2 times the square root of 900 is 36), which would be 6 sprinklers at 6 ft spacing (36 divided by 6 is 6).

The design area for a water curtain using open sprinklers would be all of the sprinklers on the system. If there were multiple water curtain systems in the same fire area, the hydraulic calculations would need to include all of the water curtain systems that would reasonably be expected to open for any single fire.

In either case (open or closed sprinklers) the hydraulic calculations for the water curtain need to include ceiling

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>> CONTINUED FROM PAGE 21

sprinklers for the hazard near the water curtain. The flow demand for the design area of the ceiling sprinklers needs to be added to the flow demand for the water curtain at the point of connection after balancing to the higher pressure demand at the connection node. Note that the requirement is not to add the ceiling sprinkler demand for the ceiling sprinklers a long ways away from the water curtain. You only need to calculate the ceiling demand adjacent to the water curtain that would legitimately be created by the worst-case single fire.

Section 11.3.3.1 explicitly says that the water curtain rules are required to be used for two situations. The first is where closely spaced sprinklers are being used around a staircase or escalator opening in conjunction with draft stops. The second is where sprinklers are being used to create a water curtain across the opening of a proscenium stage.

The water curtain rules are permitted to be used for other types of situations, but as explained earlier in this article, the specifying engineer needs to be clear that the water curtain rules are expected to be used. One situation that could use some

clarification is section 705.8.2 of the International Building Code (IBC). This section provides some relief from fire doors or fire shutters protecting openings in certain walls where the building is sprinklered and where, "exterior openings are protected by water curtains using automatic sprinklers approved for that use."

Since the IBC uses the term water curtains rather than exposure protection in section 705.8.2, it would be logical to assume that they mean what they say and that the water curtain rules of NFPA 13 are to be observed. If the sprinklers are to be installed inside the building to spray on the fire side of the window during a fire in the building, then it would be consistent with everything discussed in this article to follow the rules for water curtains. But if the intent is to have the sprinkler system installed on the outside of the building to protect the building next door, then this would really be an exposure protection system as opposed to a water curtain. We will continue to assume that the intent of the IBC is to install the sprinklers on the interior of the building under construction (in addition to the sprinkler system in that building) and that the rules of water

curtains are sufficient to meet the intent of the IBC since that is the language that is used in that code.

Summary

The rules for the design and installation of exposure protection systems and water curtains are different in NFPA 13. In order to make sure that the design intent of the engineer is met, the specifying engineer needs to be explicit and use the correct terminology in writing the specifications for what is going to be installed. In some cases, NFPA 13 or the IBC is explicit as to which set of rules need to be followed. For other circumstances, the specifications need to be clear in order to make sure that the proper fire protection is provided for the building.

If the system is intended to be an exposure protection system that is different from the type of system discussed in Section 7.8 of NFPA 13, then the specifying engineer has an obligation to specify the installation and discharge rules since they are not explicitly stated in NFPA standards. ☉



The banner features a background of flowing orange and yellow light trails. At the top right is the logo for CASA (Canadian Automatic Sprinkler Association) with the tagline "Fire Sprinklers Save Lives". Below the logo is a small photo of a couple. The main text reads "51st Annual Conference Winnipeg, Manitoba". At the bottom left, it says "June 10-12, 2012". At the bottom right, there are three small photos: a city street, a large illuminated building, and an aerial view of a city. At the very bottom, contact information is provided: "www.casa-fs.org - 905-477-2270 - ncaplice@casa-fs.org".

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The Fire Sprinkler Guide - 2009 Codes Edition is Now Available!

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

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Using Partial Residential Fire Sprinkler Systems to Protect Lightweight Construction

By Jeff Hugo, CBO

Lightweight construction consisting of prefabricated I-joists, trusses, and cold-formed steel are excellent and sustainable materials in many ways. They save labor, time, natural resources, and builder call-backs. However, widespread fire experience shows that floors framed out of these materials do not have the same durability in the event of a fire as solid sawn lumber and are not only hazardous to the occupants evacuating the home, but also to responding emergency personnel.

Several research studies have been performed showing the potential failures of these flooring assemblies during fires and the potential for floor collapse during firefighter operations. Research has also shown the ability of residential fire sprinklers to prevent the fire from reaching the dangerous point of collapse and before the minimum live loads and dead loads of that floor construction are compromised. This research shows that with residential fire sprinkler systems in the home, the prefabricated I-joists, trusses and cold formed steel materials are safe to use. But without fire sprinklers, these materials could fail catastrophically during a fire.

History of Lightweight Provisions in the International Residential Code

In the beginning of the 2012 (09/10) International Residential Code (IRC) code development cycle there were six proposals on how to protect lightweight construction (summarized below):

RB31 - American Forest and Paper: 1/2" gypsum or floor assemblies protected by an automatic sprinkler system in accordance with NFPA 13, NFPA 13R, NFPA 13D, or Section R313.

RB84 - NFSA: All new one- and two-family dwellings using floor framing components or systems composed of prefabricated I joists, trusses, and cold formed steel shall be fire sprinklered throughout according to NFPA 13, NFPA 13R, NFPA 13D or Section P2904.1

RB85 - Structural Building Component Association: 1/2" gypsum or the building is protected with an automatic sprinkler system designed to NFPA 13, 13D, 13R, or Section P2904 of this code.

RB86 - Code Solutions, Inc: 5/8" gypsum or the building is protected with an automatic sprinkler system designed to NFPA 13D or Section P2904 of this code.

RB87 - Int'l Assoc of Fire Fighters (IAFF): 5/8" gypsum or the building is protected with an automatic sprinkler system designed to NFPA 13D or Section P2904 of this code.

RB88 - Boston FD: 5/8" gypsum or the building is protected with an automatic sprinkler system designed to NFPA 13D or Section P2904 of this code.

All of these proposals vary on passive protection, but all are consistent with the fire sprinkler protection. At the Code De-

velopment Hearing in Baltimore (2009) the IRC B/E Committee listened to the arguments put forth by the proponents of each proposal, but all were turned down by this committee and they were directed to go back and work out their differences.

At the Final Action Hearing in Dallas, all six proposals returned, each with several Public Comments; again with varying thicknesses of gypsum but always a common exception: "Dwellings protected with an automatic sprinkler system designed and installed in accordance with NFPA 13D or in accordance with Section P2904."

All of the proponents of the original proposals and the authors of the public comments were present at a side meeting in Dallas to see if there was common ground or consensus in order to get "something" passed to protect occupants and firefighters. It was decided that every proposal did not meet all of our concerns, but since there was such a large industry effort on RB87 PC1 (Public Comment 1) we agreed to have this heard first in order to get the best of the voters' attention. This was done to hopefully avoid a possible exhaustive debate. A lengthy debate at

>> CONTINUED ON PAGE 26



Jeff is NFSA's
Manager of Codes

Jeff Hugo, CBO

this point may have caused the membership concern that lightweight protection wasn't ready for the IRC. Voters could have rejected all proposals until the 2015 code cycle.

RB87 PC1 was authored by the IAFF (International Association of Fire Fighters), IAFC (International Association of Fire Chiefs), AF&PA (American Forest & Paper) and NAHB (National Association of Home Builders). This proposal; RB87 Approved as Modified by Public Comment 1 (RB87 AMPC1) is Section 501.3 in the 2012 IRC.

NFSA had two problems with the proposed text of RB87 PC1; the reduction of gypsum board from 5/8" to 1/2" and the wording in Exception #1: Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D or other approved equivalent sprinkler system. At the side meeting prior to the hearing of the lightweight proposals, NFSA stated that this wording could be interpreted as to allow partial systems by code officials. NFSA was then assured by all of the public comment authors (IAFF, IAFC, AF&PA, and NAHB) that partial residential fire sprinkler systems were not permitted or intended as stated in their proposals and reason statements. During the hearing and testimony of RB87 PC1, in front of the voters and other proponents, NFSA raised the same question for the public record, and was rebutted by NAHB that partial systems were not the intent of the submitters of the RB87 PC1 text.

NFSA has since been reassured verbally and/or through email by IAFF and IAFC, that the intent was never to allow partial sprinklers to protect just the basement or unprotected lightweight framing and only fire sprinkler systems installed throughout according to IRC P2904 or NFPA 13D would be allowed.

All of the parties involved in promoting RB87 with PC1 all agreed the language was not perfect, but the ICC hearing rules do not permit floor modifications at the end stage of the hearing. The next best thing to do was to have a verbal record of the intent of the section, (the NFSA opposition to the wording in Exception #1 and the NAHB rebuttal that partial sprinklers is not the intent) instead of waiting another

three years for the next code cycle of the IRC. This was truly the first multi-industry effort to solve a life safety problem.

What about Partial Systems?

NFPA 13D and IRC P2904 do not make provisions for installing residential fire sprinklers only in portions of the dwelling unit, such as a single fire sprinkler in the kitchen or a system in the basement of the dwelling unit.

An argument arises when municipalities adopt the 2012 IRC and delete Section R313.1 (townhomes) or R313.2 (1 & 2 family dwellings) but retain Section 501.3 (RB87 PC1).

Some may think that while reading Section 501.3 Exception #1 -Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system - permits the dwelling unit to only have residential sprinklers installed in the unprotected ceiling space. As explained above, this was not the intent of the authors of the text.

When R313 is removed from the text of the IRC some opine that partial systems are permitted under another changed section in the 2012 IRC, Section P2904.1 which states: ...Partial residential sprinkler systems shall be permitted to be installed only in buildings not required to be equipped with a residential sprinkler system...

The intent of this change to the 2012 IRC was to have the ability to install a partial system when residential sprinklers are not required. When Exception #1 of

Section 501.3 is used in lieu of installing a ceiling prescribed in the charging text, then a residential fire sprinkler system is required to be installed. A residential fire sprinkler system designed according to NFPA 13D and/or P2904 is considered "sprinklered throughout" and do not have rules for partial systems. When a partial system is installed, it would violate not only the standards for installation, but the very requirement that mandated the system in the first place, Exception #1 of Section 501.3.

If a partial system is permitted by the enforcing agency, then the enforcing agency or AHJ becomes the designer. The AHJ will be allowing a design outside the parameters of a published standard (NFPA 13D). When the AHJ is controlling the fire protection for the dwelling they would have to dictate to the fire sprinkler layout technician what he or she "requires." This practice for an AHJ to design a life safety system is unprecedented and is unlikely acceptable to that jurisdictions' municipal attorney.

On an economical note, a partial system installed just for a basement makes up the majority of the cost of a residential sprinkler system with little benefits. The cost to increase the water supply, install the valves, check assemblies, piping, sprinklers and design just for a basement is just about equal to the cost of a fully-sprinklered home. To extend piping to the first floor (and possibly second floor) doesn't result in much more in costs. Why partially sprinkler a home and negate life safety, increase insurance premiums and reverse sustainable design efforts, all for a few dollars? ①



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What's It Worth?

By Joanne Genadio

Walk into a pawn shop with your Grandfather's pocket watch, and they can give you an answer.

Look up your car in the Kelly Blue Book, and it'll tell you. If someone asks you about your NFSA membership and "what's it worth?" how would you answer them? Since every dollar you spend these days counts, do you sometimes wonder just what you're getting for your money? Your NFSA membership opens doors and creates opportunities for your company that would be very difficult and costly to do on your own. The following article will not only give you the information you need to convince non-members that joining NFSA is a great investment, it will give you the confidence to know that when you renew your membership, you are doing the right thing... not only for yourself, your company and the fire sprinkler industry as a whole, but the American public as well. Membership in the NFSA goes a long way in making our mission a reality...*"To protect lives and property from fire through the wide-spread acceptance of the fire sprinkler concept."*

Did you know that NFSA maintains a presence on Capitol Hill? Through this presence, relationships are built with national, state and local fire protection organizations, as well as politicians, to move public fire protection legislation.

NFSA's extensive Chapter network provides members with nationwide peer networking opportunities. If there's a chapter meeting in your area, go to it! Put a face to your business and give it a presence

outside of its physical place! It will help grow your business through association with other business owners in the same industry.

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NFSA members agree to a strict code of ethics, available at our website, which comes with positive industry recognition and instant credibility in the business world. We hold ourselves to a higher standard. We expect more from ourselves. We deliver on our promises. We mean what we say.

The Association represents the fire sprinkler industry in all model building code arenas and installation standard-making processes. When you are an NFSA member, you know you have representation in all of these important areas. NFSA input during these processes has and will continue to influence building codes and

installation standards in the most positive way for the fire sprinkler industry.

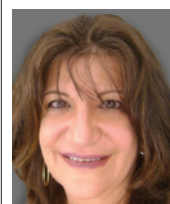
When you are an NFSA member, you always have the opportunity to have your voice heard! The Association provides its members with the opportunity to represent the fire sprinkler industry on important local, state and national code and standards-making committees and NFSA committees.

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other developments affecting the fire sprinkler industry. Our website is updated daily with news you need to know and our award-winning magazine, SQ, is available online and in print, for easy access to its articles, news and industry information. In any market, there's a lot going on and it's often difficult to stay on top of the news. We are proud to have these convenient ways to keep our members current.

Come to The NFSA Annual Seminar & Exhibition. There's no better way to meet potential business partners. When you own your own business, you can't meet too many people and networking opportunities at our seminar are excellent. There's no better way to catch up with people in the industry and compare notes about trends and other issues. Our first-class speakers, presenting topics that are relevant to the fire sprinkler industry, make it a sure bet that you will learn something of value that you can use in your business plan the moment you get back to work.

Want to make the most of your membership? Then get involved! Get on a committee, take a class or educate your employees, go to a chapter meeting and join us at our Annual Seminar. Remember, when you become an NFSA member you become an advocate for the fire sprinkler industry. Even if you don't actively participate in NFSA's lobbying efforts, your membership dues help to fund them. Think where we would be without the advocacy of the NFSA to continuously monitor and influence government, insurance agencies, the media and others.

So, there it is, in little more than the proverbial nutshell. Now, some keywords for you to remember just what the benefits of NFSA membership are:

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Sprinkler Temperature Ratings

Depending on where a sprinkler is located in a building and the processes that are occurring in that area, the temperatures that a sprinkler experiences can be extremely different. It is important that the sprinkler temperature rating chosen for each area is appropriate for the temperature experiences in those areas so that the sprinkler can function properly.

General Concepts

Ambient temperature is an important factor in the response of a sprinkler. The solder links or glass bulbs in sprinklers are designed to activate that sprinkler at a specific temperature. If the ambient temperature of the room goes above this temperature the sprinkler will activate. This being said, it is important to make sure the sprinkler activation temperature is above the expected ambient room temperature. If you look at Table 1 you will notice that the temperature rating of the sprinkler needs to be a bit higher than the expected ceiling temperatures. This serves two purposes. It provides a safety factor, so that if the temperature of the room does get higher than expected the sprinkler will not go off. Also, it is not good for the sprinkler operating element to get close to its activation temperature. Each time the element in the sprinkler experiences great amounts of heating and cooling that element weakens. If this happens often enough the element could weaken to the point where a false activation will occur.

>TABLE 1 - Sprinkler Temperature Classification Table

Temperature Classification	Temperature Rating	Max Ceiling Temperature	Glass Bulb Color
Ordinary	135 – 170	100	Orange or Red
Intermediate	175 – 225	150	Yellow or Green
High	250 – 300	225	Blue
Extra High	325 – 375	300	Purple
Very Extra High	400 – 475	375	Black
Ultra High	500 – 575	475	Black
Ultra High	650	625	Black

It is also important that the sprinkler's activation temperature is not too high. A higher activation temperature means that during a fire it will take a longer time for the ambient temperature to increase to a point at which the sprinkler will activate. For this reason, NFPA 13 requires that ordinary or intermediate temperature sprinklers be used throughout a building unless higher temperatures are required. There is, however, an allowance for high temperature sprinklers to be used in ordinary and extra hazard occupancies. In most situations, using ordinary temperature sprinklers is the best option because they are allowed in all hazards and they are less expensive than sprinklers with higher temperature ratings.

When Do You Use Higher Temperature Sprinklers?

Sometimes rooms are kept at temperatures greater than 100° F. In these situations the room would need to use sprinklers of a higher temperature rating.

As you can see from Table 1, some sprinklers are designed to protect areas that can get up to 650° F. NFPA 13 simply requires that the temperature rating of the sprinkler is ap-

propriate for the room it is in.

The sprinkler temperature rating requirements of NFPA 13 address localized areas where temperatures will likely be greater than 100° F. The common areas of concern are those around heating ducts, diffusers, unit heaters, steam mains, skylights, attics, and show windows.

Heating ducts, diffusers, and steam mains give off heat so the area directly around them needs to have intermediate temperature sprinklers, as shown in Table 2. Unit heaters give off much more heat than ducts, diffusers, and steam mains. Any sprinklers placed directly around these units need to be high temperature

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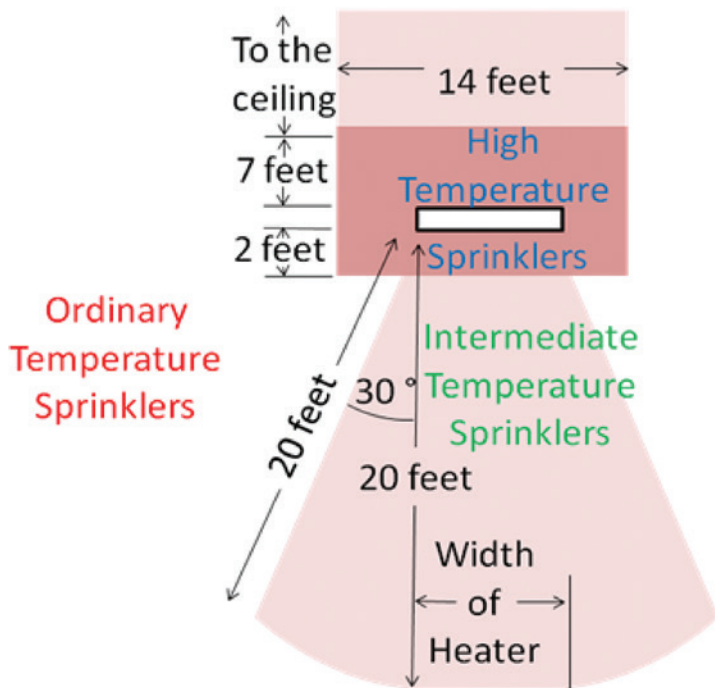
NFSA Manager
of Installation
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Karl Wiegand, E.I.T.

>TABLE 2 - Sprinkler Temperature Ratings for Specific Heat Sources

Type of Heat Condition	Ordinary Temperature Rating	Intermediate Temperature Rating	High Temperature Rating
Heating ducts Above Side and Below	More than 2'-6" More than 1'	2'-6" or less 1' or less	-----
Downward Discharge Diffusers	Any distance except as shown in intermediate	Cylinder with 1' radius from the edge extending 1' below and 2'-6" above	-----
Horizontal Discharge Diffusers	Any distance except as shown in intermediate	Semicylinder or cylinder with 2'-6" radius in direction of flow extending 1' below and 2'-6" above	-----
Horizontal Discharge Unit Heater	Anything outside of areas shown in intermediate and high temperature rating	Discharge side: 7' to 20' radius pie-shaped cylinder extending 7' above and 2' below heater; also 7' radius cylinder from 7' above the heater to the ceiling	7' radius cylinder extending 7' above and 2' below the unit heater
Vertical Downward Discharge Unit Heater	Anything outside of areas shown in intermediate and high temperature rating	Discharge side: Conical shape with dimensions as shown in figure 1 extending below the unit heater; also 7' radius cylinder from 7' above the heater to the ceiling	7' radius cylinder extending 7' above the unit heater
Steam Mains Above Side and Below Blowoff Valve	More than 2'-6" More than 1' More than 7'	2'-6" or less 1' or less	7' or less

>FIGURE 1 - Vertical Downward Discharge



>>CONTINUED FROM PAGE 29

sprinklers. They also have a strong flow of air in a single direction creating a hot area extending out from the unit heater. When dealing with a vertical downward discharge unit heater, as shown in Figure 1, the area of temperature concern is cone shaped (imagine if the figure were cylindrical in shape). When dealing with a horizontal discharge unit heater, as shown in Figure 2, the area of temperature concern is shaped like a slice of pie.

Sprinklers near skylights experience direct sunlight throughout the day. Even in an area that is much cooler than 100° F, sunlight can easily bring the temperature of the sprinkler link over 100° F. To prevent that link from activating without a fire in these conditions, intermediate temperature sprinklers are used. Similarly, attics and show windows can experience high temperatures even when the areas near them do not. Sprinklers in these areas should be intermediate temperature as well. In the 2010 Edition of NFPA 13, if these areas were ventilated, they were not required to have higher temperature sprinklers. In the field it has been seen that in attics, whether the attics are ventilated or not, that temperatures tend to go over 100° F so in the 2013 Edition of NFPA 13 all attics will require intermediate temperature sprinklers.

Residential Considerations

Most residential areas will not see very high temperatures. Residential sprinklers are only designed to be either ordinary temperature or intermediate temperature. The majority of the information on possible high temperature issues and what type of sprinklers can be used in them can be found in Table 3. Some residential areas may have temperatures that exceed what is acceptable for use with an intermediate temperature sprinkler. In these areas, standard spray sprinklers will need to be used with temperature ratings as required in Table 1.

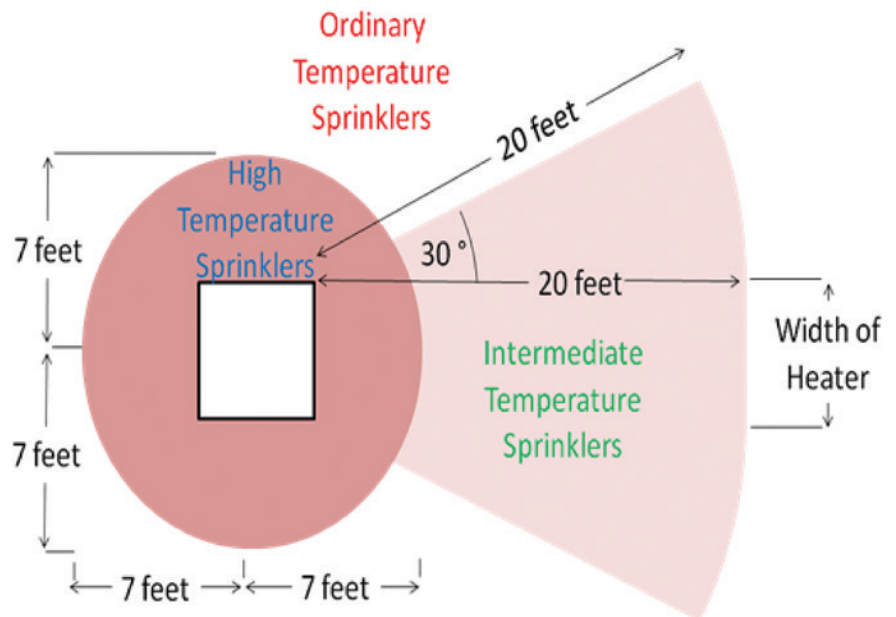
Residential sprinklers need to follow the same rules as standard spray sprinklers for temperature rating requirements. For example, it is commonly misconstrued that sprinklers that are near heating and air conditioning diffusers in

residencies are not required to be of an intermediate type. If sprinklers are close enough to these diffusers, they will in fact be required to be intermediate temperature sprinklers, as seen in Table 2.

In Conclusion

The best way to deal with high ambient temperature areas is to space sprinklers to avoid them. If you cannot do that it is important to make sure that sprinkler temperature ratings are appropriate for the area that sprinklers are located. When sprinkler temperature ratings are too high, it will take longer to activate during a fire scenario and will be more costly for the installer. Sprinklers with temperature ratings that are too low may have accidental activation due to stress on their links. ①

>FIGURE 2 - Horizontal Discharge Unit Heater



>TABLE 3 - Residential Sprinkler Temperature Ratings

Heat Source	Ordinary Temperature Sprinkler (inches)	Intermediate Temperature Sprinkler (inches)
Side of open or recessed fire place	36	12
Front of recessed fireplace	60	36
Coal or wood burning stove	42	12
Kitchen range	18	9
Wall oven	18	9
Hot air flues	18	9
Uninsulated heat ducts	18	9
Uninsulated hot water pipes	12	6
Side of ceiling or wall mounted hot air diffusers	24	12
Front of wall mounted hot air diffusers	36	18
Hot water heater or furnace	6	3
0 to 250 watt light fixtures	6	3
250 to 499 watt light fixtures	12	6

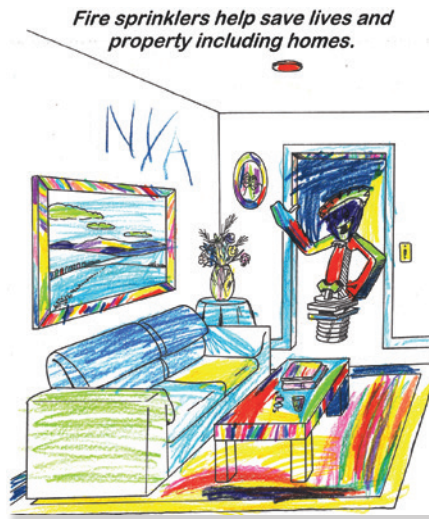
NFSA Elections Results

In recent Area Director elections, Area 7 Director **John Kauffman III** of the Kauffman Company representing contractors in the states of Texas, Arkansas, Oklahoma and Louisiana; Area 5 Director **Rich Ackley** of Dalmatian Fire representing the states of Michigan, Indiana, Ohio, West Virginia and Kentucky; Area 8 Director **Gene Postma** of Western States Fire Protection representing the states of North and South Dakota, Nebraska, Wyoming and Colorado; and Area 10 Director **James Boulanger** of Patriot Fire Protection representing the states of Alaska, Montana, Idaho, Oregon and Washington, were re-elected to new 3-year terms on the Contractors Council and Board of Directors.

Also, **Mike Berkelhammer** of United Brass Works was elected to the SAM Council joining **Gary Johnson** of Lubrizol, **Cary Nicol** of Viking SupplyNet, **Don Smith** of Chicago Backflow and **Randy Greenslate** of FPPI who were re-elected to new 3-year terms.

NFSA wishes to thank all who ran in the elections for their interest and continuing support of the Association. ①

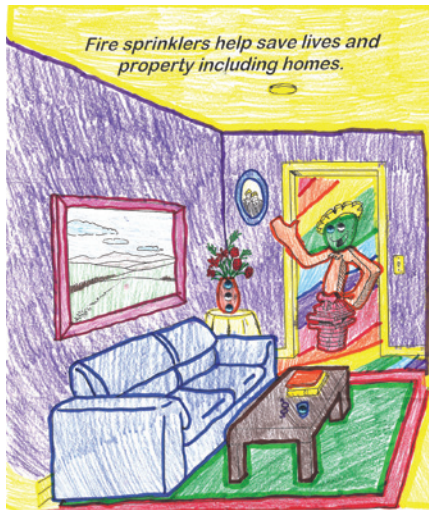
Sprinklerman Coloring Contest Award Winners Announced



Nyasia L., New York, Age 3



Jack S., Indiana, Age 7



Abigail D, New Hampshire, Age 9



Katie T., Florida, Age 11

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Do you have an interest in promoting the good works of the fire sprinkler industry, but are not directly involved? Here's your opportunity to show your support! Join NFSA as a Friend of the Industry member! Go to www.nfsa.org and join today!

Bruce Lecair and Steve Hart Receive Cal Fire Director's Partnership Award

NFSA Southwest Regional Manager **Bruce Lecair**, NFSA IP Consultant **Steve Hart** and Kevin Reinertson, Supervising Deputy Fire Marshal, Codes and Analysis received the Cal Fire Director's Partnership Award at Cal Fire Headquarters on January 4th from State Fire Marshal Tonya Hoover and Ken Pimlott, Director, Cal Fire. The trio was honored for their contributions toward the adoption of the California International Residential Code with the mandate for construction of residential fire sprinklers in all new one and two family dwellings and townhouses. The three designed and instructed a 4-hour class in over 20 regions throughout California that was designed to educate California CRC stakeholders on the adoption process, CRC provisions, state amendments and resources available for local jurisdictions and stakeholders.

During the ceremony attended by NFSA Vice President of Regional Operations Buddy Dewar, State Fire Marshal Tonya Hoover stated, "The trio embarked on a series of more than twenty classes in strategic locations throughout California, committing their own time, energy and costs, well-beyond any expectation, implementing fire-life safety provisions."

The Cal Fire Director's Award is awarded after the Cal Fire Executive Team reviews numerous nominations received for the Director's Annual Recognition Program Awards. According to the Executive Team, the awardees demonstrated superior performance, proving their commitment and dedication to the values and mission of the Department. Hart and Lecair were lauded for inspiring and motivated others, seeking solutions, generating initiative, resourcefulness and creative efforts through their superior accomplishments. ①



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REGIONAL ROUNDUP

NORTHEAST REGION

DOMINICK KASMAUSKAS
Associate Director of Regional Operations - North



Northern Adirondack NYSBOC Annual Conference

NFSA Associate Director of Northern Regional Operations, Dominick Kasmauskas, will be presenting a three-hour program on Fire Sprinklers for Dwellings to approximately 275 code enforcement officials that are anticipated to be at this annual event. The NFSA will also have a booth staffed at this event as it has annually for many years.

March 8, 2012
Crown Plaza
Lake Placid, NY

Annual Central NYSBOC Chapter Conference

The NFSA Booth will be staffed at the

2012 Educational Conference of the Central NYSBOC Chapter at the Holiday Inn, Liverpool, NY.

April 6, 2012
Holiday Inn
Liverpool, NY

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 or 1436 Altamont Ave. Suite 147 Rotterdam, New York 12303, Phone 518.937.6589, Fax 518.836.0210.

MID-ATLANTIC

RAY LONABAUGH
Regional Manager



Sprinkler Save in Cranberry Township, Butler County, Pennsylvania

The following is an excerpt of an email forwarded to Don Konkle, Executive Director of the Pennsylvania Fire and Emergency Services Institute from Brian Kovac, Fire Chief, Cranberry Township Volunteer Fire Company, Butler County, PA:

Mr. Konkle,

It brings me great joy to send you this email. Last night (December 21st) my fire dept. responded to an automatic alarm at a garden apartment complex. When the crews arrived they found a mattress that had caught fire due to a laptop computer that was plugged in and on top of the bed. One sprinkler extinguished the fire. Had that one

sprinkler not been there, we could have had a bad outcome. The apartment was located in the middle of the building on the second division.

It is not often people hear the good that comes out of sprinklers. Maybe it is because they work so well and it hardly affects anyone, as opposed to what the other outcome usually is. Thanks for being such a strong voice for firefighters!

Brian J. Kovac
Fire Chief, Cranberry Township
Volunteer Fire Company

Sprinkler Save in Montgomeryville, Montgomery County, Pennsylvania

The Montgomery Township Fire Department received a water flow alarm on December 23rd for Timberlane Woodcrafters, Inc.

Upon arrival, firefighters found water running out of the building from under an overhead garage door. The company manufactures wooden shutters so the fire potential was a serious concern for firefighters who immediately requested additional fire companies to respond. Once firefighters made entry into the building they discovered a small fire about 5'x5', just inside the of the overhead garage door. The fire was being controlled by one sprinkler from the building's automatic fire sprinkler system. Following entry, the firefighters completed the fire extinguishment.

The building's security camera system captured the entire event as it unfolded. The accidental fire started in a trash bin that contained combustible materials including residue from a recently cleaned paint booth. Rick Lesniak, Fire Services Director and Fire Marshal for Montgomery Township said, "If it wasn't for the sprinkler system, the fire could have completely destroyed the entire building." He added that had the fire destroyed the building as has occurred in many non-sprinklered businesses, jobs would have been lost.

This information was taken from a Montgomery Township Board of Supervisors Press Release. We thank Rick Lesniak for the information and Greg Jakubowski

>> CONTINUED ON PAGE 35

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REGIONAL ROUNDUP

>> CONTINUED FROM PAGE 34

for the alert.

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

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.

SOUTHEAST REGION

WAYNE WAGGONER

Associate Director of Regional Operations - South



Townhouse Fire Displaces Two Families in Franklin, Tennessee

A blowtorch being used to make plumbing repairs ignited a townhouse fire in a condominium complex, displacing two families, according to Franklin Fire Marshal Andy King.

Two tower trucks, two rescue trucks, one ladder truck, one engine, and 18 firefighters from the Franklin Fire Department responded to the two-story, six-unit building.

King said the plumber noticed smoke in the wall and alerted the homeowner who escaped without harm along with her pets. King said the plumber, who suffered minor burns, tried unsuccessfully to extinguish the fire, which started in the bathroom. He estimated the damage at \$50,000.

The building was not equipped with residential fire sprinklers. King said the townhomes were built in the 1970's before sprinklers were required by code. *Wayne Waggoner is the NFSA Associate Director of Regional Operations-South and Regional Manager for the Southeast Region.. 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



Conference Scheduled for May 2012 at World Golf Village, St. Augustine, FL

Contractor Renewals get all 32 CEUs!

Beautiful World Golf Village in St. Augustine will be the setting for the Florida Fire Sprinkler Association (FFSA) Spring Conference 2012 on May 21- 24, 2012. 32 CEUs will be available to Florida Contractors and AHJs including the mandated classes required by the State of Florida. There is an exciting line up including classes in protecting yourself in Worker's Comp cases, Debt Collection, Improving your Team to Provide better Customer Service, Legislative Updates and much more. We have negotiated a special room rate of \$139.00 per night. Check the FFSA website for more details. www.floridafiresprinkler.com.

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



Kentucky Sprinkler News

The Kentucky Housing, Building and Construction Commission is currently in the process of reviewing the 2012 International Building and Residential Code for potential adoption for The Commonwealth of Kentucky in early in 2012. Regional Manager Ron Brown has met, and will continue to meet, with Kentucky Deputy Commissioner George Mann

>> CONTINUED ON PAGE 36

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REGIONAL ROUNDUP

>> CONTINUED FROM PAGE 35

regarding any potential amendments to the fire sprinkler portions of both the commercial and the residential codes. Because there were trade-ups made when the fire sprinkler requirements were placed in these codes the state will need to be very careful when considering any modifications to the sprinkler sections. Ron will be sending a letter and documentation to Mr. Mann urging the Commission to leave the code as is with regard to the fire sprinkler requirements. He is particularly concerned with any amendments to the International Building Code. Ron will post updates to his regional webpage as they become available.

The NFSA Training and Education Department is working with The Kentucky

Fire Sprinkler Contractors Association and Kentucky State Officials in an effort to have the NFSA training curriculum approved for CEU credits under the new Kentucky Fire Sprinkler Inspector Certification Program that will commence in July of 2012. Effective July 1, 2012, Kentucky fire sprinkler inspectors will be required to obtain six hours of approved continuing education units each year. It is very likely NFSA will be scheduling classes in the state in order for the inspectors to gain the necessary credits under the new program.

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



Family of Woman Killed in Chicago High-Rise Fire to File Suit

The mother of a 32-year-old woman killed in a Chicago lakefront high-rise apartment blaze in January has filed a wrongful death lawsuit against building management, saying her daughter would be alive today had a sprinkler system been in place to douse the flames.

Authorities stated that Ms. McCoy was coming home, and when the elevator doors opened on the 12th floor, where the fire was raging, she was overcome by the heat and toxic fumes in the hallway.

The 21-story building wasn't equipped with a sprinkler system. Nor did it have a hard-wired alarm or communications system to disable elevators and alert residents of the roughly 300 apartments.

The building is one of 759 pre-1975 residential high-rises in Chicago that are exempt from the sprinkler requirement that were supposed to make other, less-costly life safety improvements by January 1, 2012.

The McCoy lawsuit will seek damages from the building's management and property manager.

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



Springfield, Missouri Fire Department Gets Federal Grant

The Springfield, Missouri Fire Department was awarded a Federal Assistance

>> CONTINUED ON PAGE 37

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REGIONAL ROUNDUP

to Firefighters Grant for \$564,812.

The grant is to be used to purchase hydraulic extrication equipment and place life safety sprinklers in the fire stations that do not have them. This program is a competitive grant process through the U.S. Department of Homeland Security and the Federal Emergency Management Agency, which requires a 20 percent local match.

The new tools will give the department greater capabilities when responding to vehicular accidents.

All of the fire stations built since 1996 have fire sprinklers, with the exception of fire station 6, which was a renovation of an existing building so it was not required by the code. This grant will allow those stations to be brought up to the modern fire code and reduce the risk to firefighters and the community's assets.

"This grant allows us to better serve and protect our citizens, our firefighters, and city property," Fire Chief David Hall said in a news release. "I am appreciative of the members of our local Congressional delegation that supported funding this important program. These measures would not have been possible without this grant."

Chris Gaut is the NFSA Regional Manager 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 DOT Wants Tunnel Sprinklered

The Colorado Department of Transportation (CDOT) wants to install a fire sprinkler system in the four-lane Eisenhower-Johnson Memorial Tunnel located on Interstate 70. The tunnel is one of the busiest corridors crossing the Continental Divide and is said to be the highest highway tunnel in

the world.

The CDOT is looking for funding to install a fire sprinkler system to control heat from a possible fire in the tunnel. The suppression system may be able to receive some of the needed funding from Homeland Security. The system and installation costs are estimated at \$20 million.

Some 300 million vehicles have passed through the tunnel without a substantial fire. However, if a damaging fire were to occur that resulted in closure of the tunnel, it would be devastating to the economy in Colorado.

Both the location and structure of the tunnel make it particularly susceptible to a devastating fire. Tunnel fires are extremely difficult for firefighters to deal with. Unprotected tunnel fires may burn uncontrolled for several hours and cause major structural damage to the concrete and pavement, resulting in the tunnel being closed for several months for repairs. Tunnel fires that do not have fire protection make it nearly impossible to execute any type of rescue efforts for victims that may be trapped in the tunnel.

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



Aaron Bennett Named to NFSA Contractors Council & Board

During an NFSA Board Meeting held in October, 2011,, Todd Little of RCI Systems announced his resignation from NFSA Contractors Council and Board of Directors. The Contractors Council honored Mr. Little's request to name Aaron Bennett of his firm to fill out the remaining two years of his term on both the Council and Board.

Mr. Bennett began his career in Seattle, Washington as an apprentice in

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>> CONTINUED FROM PAGE 37

Local 669 working for The McKinstry Company. He remained with McKinstry for three years before moving into the design of fire sprinkler systems. Mr. Bennett remained a designer for three years. He then moved to Phoenix and joined RCI Systems as a designer before advancing to Project Manager/Salesman. Mr. Bennett is currently the Vice President of RCI Systems and will be serving as NFSA Area Director for the Southwest Region.

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



Sprinkler Save in Oak Grove, Oregon

A fire that broke out in a vacant restaurant building in Oak Grove, did little damage before the building's sprinkler system put it out and no injuries were reported.

Steve McAdoo, Clackamas Fire District 1 spokesman said "The fire most likely was intentionally set. Investigators have located several areas inside the building where fire appears to have started at nearly the same time."

McAdoo said the Oregon State Police and Clackamas County Sheriff's Office would be called in to work with the district's fire investigators.

He added that no suspects have been named, but that an experienced arsonist would have realized the building was outfitted with a sprinkler system.

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

■ Viking Launches Mobile Web Site

Viking Group has extended its mobile web platform to include a new site dedicated to its VGS® brand of grooved piping products. The new site provides access to detailed product information via mobile devices. This access is particularly important to contractors who need critical technical information at the job site. Viking's mobile platform also includes web sites for CPVC piping products as well as the complete Viking line of fire protection valves and systems.

The new VGS® mobile site includes a 3D animation of a grooved coupling installation, as well as helpful resources such as product take-out dimensions, end of pipe preparation, gasket information, and specifications for the VGS® hole cut system. There are also links to the VGS® project submittal form, full-line product catalog, and even an innovative "VSN Facility Locator," which allows users to quickly find their closest Viking SupplyNet service center.

To launch the site, customers can scan the QR code below. Smart phone users can download any number of free apps for scanning these codes (such as ScanLife®, Tappinn®, I-Nigma®, etc.). After launching the app from their smart phone, the user is prompted to scan the code, often through the device's camera feature, and is then automatically directed to the mobile web site.

You can also access the new VGS® mobile web site through the following link: viking-group.mobi/p/46374. The complete mobile series is also accessible from Viking's mobile web homepage: vikinggroup.mobi.



■ Potter Electric Overhauls Website

Potter Electric Signal Company, LLC has unveiled a major overhaul of its website. After considerable research into their existing website they've updated the new site to reflect feedback from customers. The major focus of the updates includes

enhanced navigation and product information as well as a more robust backend platform.

This is the first stage of a continuous plan by Potter to improve the capabilities of their web-based interaction with their customers. Some of the updated features include improved search capabilities and updated customer order tracking. Future additions include such things as enhanced training services and social media options allowing users to get updates in the ways that are most convenient for them.

To see the newest updates please visit www.pottersignal.com.

■ Tyco Fire Protection Products Introduces Enhanced Rapid Response Website

Tyco Fire Protection Products (TYCO) introduces a newly re-designed website for the RAPID RESPONSE Residential Fire Sprinkler System (www.Tyco-RapidResponse.com). The new website features best-in-class solutions and information for fire sprinkler contractors, designers and installers; building and fire officials; homebuilders; and homeowners.

The redesigned site now includes technical data for all TYCO sprinklers, pipes and fittings, plus installer guides and links to training opportunities that will help contractors stay up-to-date. There's even a frequently asked questions page they can use as a resource for customers.

The new RAPID RESPONSE website will be frequently updated with new product announcements, literature, technical data and ongoing training opportunities.

Additionally, the new website also reflects the recent redesign of the Rapid Response logo. The signature line changes from "Home Fire Sprinkler System" to "Residential Fire Sprinkler System" to reinforce the brand strategy to not only single-family but also multi-family residential applications.

Explore the new RAPID RESPONSE website today by going to www.TycoRapidResponse.com.

SPRINKLING OF NEWS

■ BuildingReports Releases Service Manager

BuildingReports has announced the release of Service Manager, the fourth application in their ManagerSeries product line.

Service Manager is a web-based service-dispatch add-on module that seamlessly integrates with other ManagerSeries modules (Accounts, Notifications and Scheduling Managers). Service Manager allows easy, flexible management of service events within members' on-line accounts. Users can create, track and dispatch service appointments as well as manage workflow through multiple on-line calendar interfaces. Using Service Manager, field staff can update service tickets remotely before, during and after service appointments.

FEATURES

- Permits users to communicate and confirm upcoming appointments automatically via email
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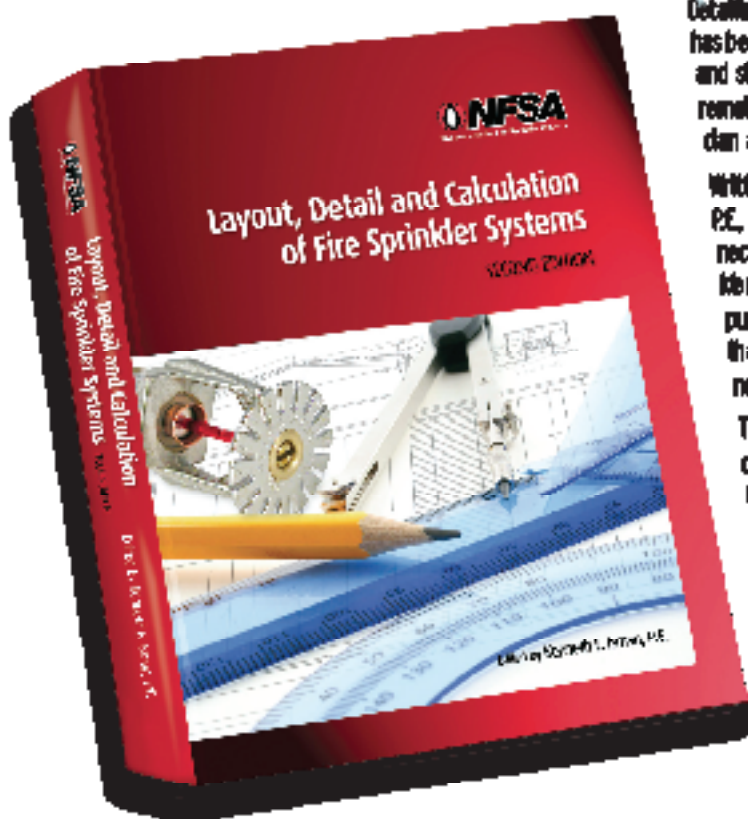
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2nd Edition of Layout, Detailing and Calculation of Fire Sprinkler Systems



The NFSA announces the publication of the 2nd Edition of its popular textbook, *Layout, Detailing and Calculation of Fire Sprinkler Systems*. This newly revised hard cover 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 siting. 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 \$6H) to members of the NFSA and \$145 for non-members (plus \$6H). 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 + \$6H for members and \$120 for non-members). To get your book, fill out the following form and return it with your payment.

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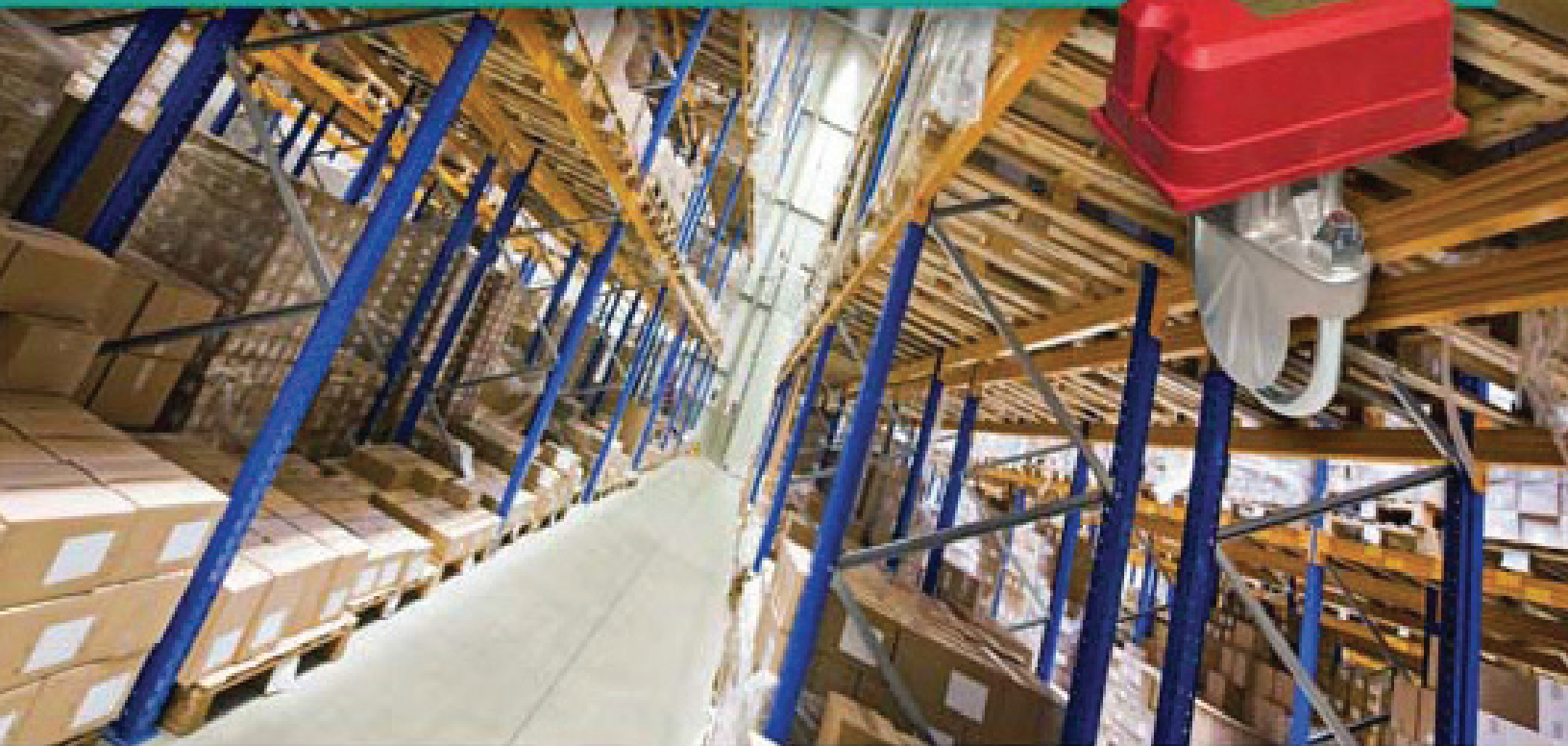
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