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Journal of the National
Fire Sprinkler Association

SQ

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on the cover...

NFSA's newly established Industry Advancement Fund, which will supplement the efforts of the Sprinkler Manufacturers Industry Fund and Industry Promotion Funds, gets a healthy start with $72,000 in donations.

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JOHN A. VINIELLO

State of the Industry

The following article was first printed in FPC Magazine.

Even the most optimistic economic pundits are continually impressed at the great "run" the fire sprinkler industry has enjoyed over the past several years. The adoption of two major model building codes – the International Building Code (IBC) and NFPA 5000 – through state and local ordinances have propelled, particularly throughout the south, the installation of fire sprinklers at a record pace. The Standard Building Code, considered the weakest of the former three major model building codes (Standard Building Code, Uniform Building Code and Basic/National Building Code) in terms of fire sprinkler requirements, has now been replaced by codes very strong in requiring sprinklers at much lower thresholds in height and area than ever before. It is not surprising that fire sprinkler shipments have reached record levels in recent years.

In spite of this, though, I suggested in the summer of 2006 that our industry was headed for a down turn. In support, the following article was published in the July/August 2006 issue of SQ magazine:

Storm Clouds on the Economic Horizon?

With backlogs building, sprinkler shipments at an all-time high and a smaller inventory of nonresidential construction being protected with larger numbers of the product that you manufacture, install and supply, you may be wondering why I am suggesting that storm clouds on the economic horizon may be appearing?

Let's take a look at some fundamentals which you have all been seeing and reading about in both the printed and electronic media about the state of the U.S. economy.

Interest rates are rising. And while not dramatically, certainly at a pace that suggests the Federal Reserve is concerned about inflation rearing its ugly head. Energy prices are soaring out of sight. Nonresidential construction, while still strong, will be drastically affected if residential construction begins to slump, and more importantly, if consumer spending is curtailed.

Those of you who were in the sprinkler business in the early 1990's will remember that the bottom fell out of a very strong sprinkler economy almost overnight. Contractors in many parts of the country were "stuck" with inventory on jobs that they had bid, were expecting to start, but were shelved because of a lack of attractive financing. Given the uneven and wildly fluctuating prices in the commodities market, which cause substantial price increases in just about all the materials used in fire sprinkler system components, many contractors are increasing inventories in an effort to insulate themselves from near term supply chain volatilities – exponential price increases, supply shortages, delayed deliveries. While a sound strategy for backlogs in progress, careful monitoring of the general economic business cycle is essential as it will eventually begin to affect construction and ultimately the sprinkler industry as well. Failure to read the business climate "road signs" could spell almost certain disaster for an unsuspecting contractor.

In my view, consumer spending is the key to a successful economy. It affects every level of business. And as such, we as an industry need to be very vigilant as to when it will impact the fire sprinkler industry and at what point during the economic cycle. Perhaps a leveling off of business activities is not all bad given the "manpower shortages" experienced by contractors at every level. This may be a chance for the sprinkler industry to collectively "catch its breath," and endure through a moderate recessionary cycle, which I believe could begin to affect our industry in the second half of 2007.

You all know I have been very bullish on the prospects of growth in our industry, but I am somewhat concerned that there exists some very basic negative economic indicators. If they continue to move in a negative direction, they will eventually begin to impact your businesses. Look for additional updates and reports from the NFSA Council meetings.

Our industry is exactly where I predicted it would be more than 12 months ago. Fire sprinkler installations for homes have come

CONTINUED ON PAGE 7

CALENDAR

EVENTS OF INTEREST TO NFSA MEMBERS

SEMINAR	LOCATION	DATE
Wet Systems	Online	Jan 29
Two-Week Technician Training Seminar	*Newburgh, NY*	Feb 4-15
Dry and Preaction Systems	Online	Feb 12
Antifreeze System Updates	Online	Feb 26
NFPA 13R Systems-Outside the Dwelling Unit	Online	Mar 11
Foam Sprinkler Systems Update	Online	Apr 1
Water Supply Systems	Online	Apr 22
Exposure Protection Systems	Online	May 6
Water Cooling Towers	Online	May 20
Standpipes, Pressures and Pumps	Online	Jun 10
The Extent of Systems	Online	Jun 24

CONTINUING EDUCATION PROGRAMS:

Professional Development – (for information call (845) 878-4200 ext. 131)

- Project Management for the Sprinkler Contractor
- Foreman and Construction Supervisor Training

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NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

FUTURE NFSA ANNUAL SEMINARS:

NFSA Annual Seminar
May 14-17, 2008
Atlantis Paradise Island, Bahamas

NFSA Annual Seminar & Exhibition
April 29 - May 2, 2009
Omni ChampionsGate
Orlando, FL

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to a halt. We see softness in parts of Florida (unheard of in recent years) as well as in parts of the Midwest. One very large contractor remarked that he was looking at false backlogs. Although backlogs for most of the industry remain strong they are not being replaced at the same pace they were a year ago. On the plus side, the industry is coming down from a very high level of business activity and the tremendous gains we have made in the building code arena that we are continually working hard to preserve, will still be in place when we begin to see more daylight at the end of the economic tunnel toward the latter part of 2008.

NFSA continues to work with organized labor, AFSA and a strong coalition of organizations seeking passage of the Fire Sprinkler Incentive Act, which, if passed by Congress and signed by the President, will amend the 1986 Internal Revenue Code to accelerate the depreciation schedule for fire sprinklers in existing construction.

We are also working with industry partners in seeking mandatory adoption of fire sprinkler requirements in the next edition of the International Residential Code. While there is massive opposition from homebuilders (not unexpected), this would only be a first step in getting the provisions adopted without amendment at the local level – a challenge for which NFSA, with its network of regional operations offices located across the country, is uniquely qualified to undertake.

NFSA, CASA and the Fire Sprinkler Institute – comprised of NFSA Sprinkler Manufacturer members – are working on a Best Practices initiative, which, when implemented by sprinkler contractors from coast to coast and border to border, will be used as a springboard to reduce liability insurance costs for our industry. I predict that this single program, when embraced by the North American fire sprinkler contracting industry in the coming months, will result in huge insurance savings for our industry.

Next year, in a separate initiative, we will launch a very active layout technician recruitment program targeted to encourage young people to enter the fire sprinkler industry. Look for information on the progress of this program on the NFSA web site www.nfsa.org.

In closing, let me ask those of you who are reading this article to consider where this industry would be without active industry associations. If you are a member, I applaud you. But, get more involved on committees at the local or national level. If you are sitting on the sidelines, now is the time to give back to an industry that is dedicated to protecting property and saving lives. I ask you to consider it!

NFSA Regional Chart – July 1, 2007

Area	States	Regional Manager	Area Director
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Southeast	*Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee*	**Wayne Waggoner**, NFSA PO Box 9 Andersonville, Tennessee 37705 (865) 947-3393 FAX (865) 381-0597	**Ed Davis** Morristown Automatic Sprinkler Company, Inc. 1310 Karnes Avenue Knoxville, Tennessee 37917 (865) 689-4480 FAX (865) 687-8622
Florida	*Florida, Puerto Rico*	**Dave Bowman**, NFSA 6572 SE 173rd. Court Ocklawaha, Florida 32179 Phone: 845-519-7648 Fax: 661-455-3968	**Wayne H. Gey** Wayne Automatic Fire Sprinklers, Inc. 222 Capital Court Ocoee, Florida 34761 (407) 656-3030 FAX (407) 656-8026 **Alan Wiginton**, Alternate Wiginton Fire Sprinklers, Inc. 699 Aero Lane Sanford, Florida 32771 (407) 585-3205 FAX (407) 585-3280
Great Lakes	*Indiana, Michigan, Ohio, West Virginia, Kentucky*	**Jeff Hugo**, NFSA 1088 W. Borton Road Essexville, Michigan 48732 (845) 519-5963 FAX (989) 891-0494	**Richard A. Ackley** Dalmatian Fire, Inc. P.O. Box 78068 Indianapolis, Indiana 46278 (317) 299-3889 FAX (317) 299-4078
Ilinois	*Ilinois*	**Bob Kleinheinz**, NFSA 509 Dawes Street Libertyville, Illinois 60048 (914) 671-1975	**Gregg Huennekens** United States Fire Protection, Illinois, Inc. 28427 North Ballard – Unit H Lake Forest, Illinois 60045 (847) 247-4755 FAX (847) 816-0098
North Central	*Minnesota, Wisconsin*	**Daniel J. Gengler**, NFSA P.O. Box 280 Williams Bay, Wisconsin 53191 (262) 245-5255 FAX (262) 245-5258	
South Central	*Arkansas, Louisiana, New Mexico, Oklahoma, Texas*	**Steven E. Randall**, NFSA 7165 Lazy Meadow Lane Frisco, Texas 75034 (972) 668-4022 FAX (972) 668-4077	**Mark D. Tate** Northstar Fire Protection of Texas 405 Highway Bypass - Building C, Suite 150 Lewisville, TX 75067 (469) 635-4400 FAX: (469) 635-4401
Central	*Iowa, Kansas, Nebraska, Missouri*	TBA	**Dennis C. Coleman** Engineered Fire Protection, Inc. 1615 South Kingshighway St. Louis, Missouri 63110 (314) 771-0033 FAX (314) 664-1619
Mountain	*Montana, Nevada, North Dakota, South Dakota, Utah, Wyoming*	**Terry Phillips**, NFSA 1829 Meadow Drive Cheyenne, Wyoming 82001 (914) 525-4396 FAX (307) 514-0406	**Todd Little** 1220 West Geneva Drive Tempe, AZ 85202 (602) 894-8711 FAX (602) 894-8740
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		Director of Regional Operations **Buddy Dewar,** NFSA 200 West College Avenue Tallahassee, Florida 32301 (850) 222-2070 FAX (850) 222-1752	**Director at Large** **Barry Waterman** Acme Sprinkler Service Company 645 South Clark Street Chicago, Illinois 60605-1788 (312) 922-3644 FAX (312) 922-3323

DENNIS C. COLEMAN

Brethren of the Fire Sprinkler Industry...

To put my money where my mouth is, I tried an experiment with my superintendent before I wrote this article. Since I am promoting the NFSA's annual seminar, and I am encouraging everyone to reward a valuable employee by sending them to the annual seminar in the Bahamas, I thought I would try it out on my superintendent. He is hard-working, and one of the keys to my success as a contractor. I invited him and his wife to come with me to the Bahamas in May. He was excited and said that he would talk to his wife about it over the weekend. He came back on Monday and said that his wife was also excited, and said that there was no way that she would let him go alone. They are extremely happy and looking forward to the trip, and I believe that I will get a lot of mileage from giving this perk. I recommend that you consider doing the same thing with one of your key employees.

Over the years, I have always been surprised by the lack of interest that fire sprinkler contractors have had in the Annual Seminars sponsored by NFSA. For a myriad of reasons, I have always attended these seminars, and have used them for an excuse for a company paid vacation for decades. I used to go with my Dad when he and I were much younger. I have enjoyed taking my wife, and sometimes even my children. But I have very little success talking my competitors and friends in the St. Louis area to come on these trips. Over the years I have enjoyed such destinations as Aruba, Hawaii, Acapulco, Florida, Arizona, California, and New York. My company always picks up my tab, and I also get to meet and talk with associates in the fire sprinkler industry. I have made many friends, and have learned quite a bit from my contemporaries and industry experts.

So my question is: WHY DON'T MORE OWNERS AND MANAGERS TAKE ADVANTAGE OF THIS OPPORTUNITY?

We have been making sincere efforts to make the programs and seminars more interesting and applicable to those attending. In Las Vegas earlier this year, we had over 1,500 registrants, which was a new attendance record. To continue building on that momentum at this year's event in the Bahamas, I have made a list of 10 good reasons to attend our Annual Seminar at the Atlantis in May of 2008. See if one of the following ideas motivates you:

1. Spend a few nights in one of the most gorgeous hotels in the world
2. Enjoy the beaches and aquamarine waters of the Bahamas
3. Feast on some fresh seafood
4. Learn something more about our great industry through the seminars and workshops offered
5. Meet contemporaries and make more friends in the field of fire protection. Get ideas from some of the most successful contractors in the industry
6. Participate with the industry leader, NFSA, in promoting the sprinkler concept
7. Consider rewarding one or two of your deserving key employees
8. Add a day or two at the beginning or end of your trip to relax a little more
9. Meet the manufacturer and supplier representatives first hand
10. Meet the leaders of the NFSA and determine how you can use those people and resources to strengthen your business.

I can promise that if you come with an open mind and a good attitude, you will benefit greatly from your experience. Why not mix some business with pleasure? Many of you have never attended one of these events, and some of you have not attended in a long time. We've had a pretty good run in our business over the last few years. You, and maybe some of your associates, deserve some compensation. Treat yourself to a great time in the Bahamas, and think about using this as a reward for some of your key people. I know that you will be glad that you did.

Dennis Coleman is NFSA's Area 8 Director and Chairman of the Annual Seminar & Exhibition Planning Committee.

ASA Report Shows Retainage Reform as Important Trend in 2007

In 2007, several states benefited from powerful new laws that address business practices that, for decades, have created cash flow and other financial problems for construction subcontractors. Working through the American Subcontractors Association's (ASA) chartered local chapters and state organizations, ASA members played an integral role in generating this "wave of change" by educating policymakers about the effects of business practices such as retainage, slow payment and inequitable risk transfer. Retainage is a percentage of the total bid, which a contractor (or subcontractor) pays upon submitting a bid for work. It is considered insurance, and a "good faith" tool; a way for public institutions/general contractors to assure that a company they are entering into an agreement with is solvent, insured, and will be around for the duration of the project.

The money, at least on public jobs, is supposed to be held in escrow, and paid back with interest when the contractor has fulfilled obligations under the terms of the agreement.

But a lot of companies (smaller ones, especially) are put off by requirements of retainage, and the trade is rife with horror stories about businesses never seeing their "good faith" money again.

ASA has documented these policy changes in its 2007 edition of The ASA Report: THE POLICY ENVIRONMENT IN THE STATES.

The rankings are based on each state's final core on a scale of 0 to 100, as calculated by ASA. Letter grades were assigned according to the following scale:

100-91…A 90-81…B 80-71…C
70-61…D 60-0…F

Bold face indicates a change in score due to significant legislative or judicial activity.

Italics indicate activity, but no score change.

The ASA report shows that awareness of the harmful effects of retainage is growing and legislators are acting on that awareness. New Mexico has all but prohibited retainage and Kentucky, North Carolina and Tennessee have enacted retainage reform

The report also reveals that prompt payment continues to be an area in which subcontractors are making policy advances. Four states enacted prompt pay laws: Kansas, Kentucky, New Mexico and Illinois. Kansas' law propelled it into the number one position in this category. The law extended a previously existing law for private work to public owners, contractors and subcontractors, with harsh penalties for late payment.

In 2007 (as in previous years) the District of Columbia and every state but New Mexico earned a failing grade, or overall score of 60% or less. Even so, among the mass of failing states, not all were equal. The policy environment in a state with a score of 58% (e.g. South Carolina) vs. one scoring 14% (e.g. Wyoming) would differ in the extreme.

There were some other important policy victories for subcontractors that could signal the beginning of future trends. Colorado's new anti-indemnity law, which moved its score from 0 to 94 % in the anti-indemnity category, prevents the contractual transfer of risk in construction contracts and closes the additional insured loophole. Georgia legislatively addressed a judicially created loophole allowing brad-

The ASA Report: The Policy Environment in the States
2007 Overall Results

2007 Rank	State	Retainage	Indemnity	Bid Shop	Prompt Pay	Liens	Pay-If-Paid	Bonds	2007 Score	Overall Grade
40	Alabama	F	F	F	F	F	F	D	25	F
42	Alaska	F	F	F	F	F	F	F	23	F
9	Arizona	C	F	F	F	F	F	D	49	F
19	Arkansas	F	F	A	F	F	F	B	41	F
5	California	F	F	A	F	D	A	F	57	F
30	**Colorado**	F	**A**	F	F	*F*	F	F	**32**	**F**
12	Connecticut	C	F	F	F	*F*	F	D	45	*F*
11	Delaware	F	F	A	F	F	F	C	46	F
50	District of Columbia	F	F	F	F	F	F	F	14	F
10	Florida	F	F	A	F	F	F	B	48	F
25	**Georgia**	F	**F**	F	F	D	F	C	**35**	**F**
35	Hawaii	F	F	F	F	F	F	D	27	F
34	Idaho	F	F	F	F	F	F	C	28	F
6	**Illinois**	F	F	F	**F**	D	B	D	**51**	**F**
41	Indiana	F	F	F	F	D	F	F	24	F
47	Iowa	F	F	F	F	D	F	F	19	F
18	**Kansas**	F	F	F	**B**	F	F	*D*	**42**	**F**
12	**Kentucky**	**C**	F	F	**C**	**C**	F	F	**45**	**F**
35	Louisiana	F	F	F	F	F	F	D	27	F
30	Maine	F	F	F	D	F	F	D	32	F
19	Maryland	F	F	F	F	D	B	F	41	F
14	Massachusetts	F	F	A	F	F	F	B	44	F
38	Michigan	F	F	F	F	F	F	C	26	F
27	Minnesota	F	F	F	F	F	F	D	34	F
35	Mississippi	F	F	F	F	F	F	F	27	F
6	Missouri	D	F	F	F	F	B	D	51	F
19	Montana	F	A	F	F	F	F	F	41	F
38	Nebraska	F	F	F	F	F	F	D	26	F
42	Nevada	F	F	F	F	F	F	F	23	F
47	New Hampshire	F	F	F	F	F	F	D	19	F
14	New Jersey	F	F	F	F	C	F	F	44	F
1	**New Mexico**	**A**	A	A	**B**	D	**B**	B	**90**	**B**
4	New York	F	F	F	F	C	A	F	56	F
8	**North Carolina**	**F**	F	F	F	D	A	C	**50**	**F**
42	North Dakota	F	F	F	F	F	F	D	23	F
27	Ohio	F	F	F	F	F	F	D	34	F
22	Oklahoma	F	A	F	F	F	F	D	40	F
4	Oregon	F	A	A	F	F	F	C	56	F
27	Pennsylvania	F	F	F	F	F	F	D	34	F
32	Rhode Island	F	F	F	F	C	F	D	31	F
2	South Carolina	F	F	A	F	F	A	D	58	F
33	South Dakota	F	F	F	F	D	F	B	30	F
16	**Tennessee**	**C**	F	F	F	*F*	F	F	**43**	**F**
24	**Texas**	F	F	F	F	F	**C**	F	**38**	**F**
25	Utah	D	F	F	F	C	F	F	35	F
45	Vermont	F	F	F	F	F	F	F	22	F
46	Virginia	F	F	F	F	F	F	F	21	F
16	Washington	F	F	A	F	F	F	F	45	F
49	West Virginia	F	F	F	F	F	F	F	17	F
23	Wisconsin	F	F	F	F	C	A	F	39	F
50	Wyoming	F	F	F	F	F	F	F	14	F

Bold face indicates a change in score due to significant legislative or judicial activity. *Italics indicate activity, but no score change.*

CONTINUED FROM PAGE 10

form indemnity, earning the state a 41% jump in this category. New Mexico and Texas, which previously scored 0 in the anti 'pay-if-paid' category,' enacted laws to address the inequities of contingent payment. New Mexico's score in this category now stands at 90%, and Texas' at 75%.

For more information, and to read the entire report, visit the ASA website at www.asaonline.com.

EOD's Top Ten

We have selected the following questions as the latest "Best Questions" answered by the engineering staff as part of the NFSA's EOD member assistance program:

QUESTION 1

NFPA 1 Override re. Spare Sprinklers in 13D Systems

In Question 1 of NFSA eTechAlert No. 94, it was stated that NFPA 13D does not require spare sprinkler cabinets. What about the requirements of Section 13.3.3.7.1 of NFPA 1 (2006 edition)?

ANSWER: NFPA 1, the Uniform Fire Code, can be enforced for all new and existing buildings and does contain Section 13.3.3.7.1, which states the following:

13.3.3.7.1* A supply of spare sprinklers (never fewer than six) shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced. [25:5.4.1.4]

Note that the reference at the end of the paragraph indicates this material has been extracted from NFPA 25. The scope of NFPA 25 specifically exempts itself from being applied to NFPA 13D systems:

1.1.1 This standard does not apply to sprinkler systems designed and installed in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.

The intent of the NFPA extract policy is that text from one document be incorporated into the text of another document without changing the meaning of the text. The copying is intended for convenience of the user, not to change the requirement from one document to the other. Since NFPA 13D systems do not need to comply with NFPA 25, they also do not need to comply with NFPA 1 where the text in NFPA 1 is extracted from NFPA 25. This is not to say that NFPA 1 cannot create its own requirement for spare sprinklers in dwellings. It could process a proposed change and attempt to justify that change. But it cannot do it through an improper extract from NFPA 25.

QUESTION 2

Fire Pump Acceptance Tests at Less than Rated Pressure

If a fire pump is utilized for a demand that is less than 100% of the total rated

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head, but no less than the minimum 65%, is it still required to be tested at 100% of the rated capacity? For example, if the demand (or design point) is 100 psi @ 1000 gpm, and a pump curve is selected for a pump which is rated at 85 psi @ 1250 gpm, is it still required to be tested at 1250 gpm?

ANSWER: Yes, the pump is still required to be tested at its rated flow (1250 gpm in your example) and at 150% of its rated flow (1875 gpm in your example). The purpose of the acceptance test is to check the performance of the pump across its full performance range, not just the demand flow of the fire sprinkler system that it is attached to. The only exception is if the water supply is not capable of supplying the 150% point, you are then just required to flow the maximum that the water supply will provide. Generating this performance curve at the beginning of the life of the pump helps to establish the ground rules under which the pump will be evaluated for the rest of its life.

QUESTION 3

Use of Pressure Restricting Devices Above 175 psi

We have a single zone 24-story building needing 100 psi residual at the top of the standpipes with the hose requirements flowing. We have about 280 psi static pressure at the lower standpipes. We intend to use 2 ?-inch 300 psi pressure restricting valves on the standpipes. Do these need to be flowed at their expected flow rate after installation (and during inspections) as required for pressure reducing valves – NFPA 13 Section 16.2.4 (2002 edition)? NFPA 13 and 25 only refer to "pressure reducing valves" as needing to be flowed. Quite a few municipalities around Chicago require pressure restricting valves instead of the PRVs, with the explanation they are "foolproof".

ANSWER: We think that the problem may be in your use of the term "pressure restricting" valves, which seems to be different than its use in the NFPA standards. Per the NFPA standards, a pressure restricting device is one that reduces residual (flowing) pressure but does not reduce the static pressure (see the definition in Section 3.3.9 of NFPA 14). These devices are typically restrictor orifice plates that create friction loss in order to reduce flowing pressures. NFPA 14 does not allow the use of pressure restricting devices for standpipe systems where the static pressure exceeds 175 psi (Section 7.2.1.2 of NFPA 14 – 2007 edition). Instead, NFPA 14 requires the use of a pressure regulating device that limits both static and residual pressures, i.e. a pressure reducing valve, in these situations. Therefore, you are either using a pressure restricting device outside of the rules of NFPA 14, or you are using a device that someone is calling a pressure restricting device that NFPA 14 would define as a pressure reducing valve.

QUESTION 4

Scheduling 5-Year Internal Inspections

We have a hospital with 31 separate zones over 6 stories. Our question is what actually constitutes a system as far as internal inspections go? Also, do they have to be done in the same time frame or can we do a certain percentage per year until completed? If so, what is the percentage?

ANSWER: A sprinkler system can be defined by the presence of a control valve, a waterflow alarm and a downstream drain. As such, the sprinkler piping on any single floor of a typical high-rise building with floor control valves can be considered a separate fire sprinkler system. Since there is no requirement to test all systems on a property at the same time, the systems could be identified and tested in any rotation. For example, making sure that 20% of them receive the 5-year inspection each year should allow costs to be stabilized. Note that the committee chose the 5-year cycle to correspond to the internal inspection for check valves. Since the system needs to be drained once every five years so that the check valves (and wet alarm valves) can be inspected on the inside, the internal inspection of the piping can be carried out at the same time. Also note that the internal inspections can be conducted any time that the system is drained down. If you are going to drain down a system for some other renovation, repair or maintenance reason, schedule your internal inspection at the same time and save yourself the trouble of draining the system down again for a separate internal inspection.

QUESTION 5

Risers vs. System Risers

Please help us identify "system riser" piping in a current job per the NFPA 13 definition. In this particular case the general contractor believes "system riser" piping is more than the vertical risers located in the valve room. The specifications call for schedule 40 pipe for all system risers, schedule 10 for all other piping.

ANSWER: The definition of "system riser" in NFPA 13 is intentionally loose in order to allow many different arrangements of fire sprinkler systems. A history of the definition of "system riser" will probably help this situation.

In the 1994 and prior editions of NFPA 13, the definition of "system riser" was "The aboveground supply pipe directly connected to the water supply." There were a number of problems with this definition. The first was that the term "riser" implied that this pipe was only vertical. The second was that the definition did not cover the need for, or the purpose of, a system riser. The situation was amplified when AHJ's started to require that the sprinkler system on each floor of a high rise building had to have vertical piping in which to place the control valves and waterflow alarms because the water supply was the standpipe system and they wanted a vertical riser between the standpipe system and the mains feeding each floor. This was clearly a ridiculous interpretation of the standard, but many AHJ's started to force sprinkler contractors down this road.

In the 1996 edition of NFPA 13 the committee clarified the meaning of "system riser" as the "aboveground horizontal or vertical pipe between the water supply and the mains (cross or feed) that contains a control valve (either directly or within its supply pipe) and a water flow alarm device."

This definition established some important facts:

1) Frequently, a section of horizontal pipe is installed between a floor flange where the underground ends and the vertical piece of pipe feeding the cross mains at the ceiling in order to install a backflow preventer or line up the underground pipe with the vertical piece. This horizontal section of pipe

CONTINUED FROM PAGE 12

would be considered part of the "system riser" for the sprinkler system if it only served a single system. If multiple systems are served from this horizontal piece of pipe, then it is not a "system riser" because it does not contain a system control valve for only one system and it does not contain a waterflow alarm for a single system.

2) Sprinkler systems on each floor of a high rise building are each considered separate systems, each with its own horizontal "system riser" running from the standpipe riser to the cross mains on the floor they are protecting. The "system riser" is the horizontal piece of pipe containing the control valve and waterflow alarm.

3) The purpose of the "system riser" is to provide a location for the system control valve and the waterflow alarm. Although not specifically mentioned in the definition, it is assumed that a drain is also included because it is necessary to flow test the alarm and to get the water out of the system for repair or maintenance.

It is common to see requirements in specifications for Schedule 40 pipe to be used on the system riser. Since this pipe supports heavy valves and drains, many specifying engineers are concerned that the pipes have adequate strength to support these materials. The new definition of "system riser" helps to reinforce this situation as well because horizontal pipe also needs to be able to support the weight of the valves and drains attached. For the horizontal and vertical piping beyond the valves, waterflow alarms, and drains, there is less weight to support.

QUESTION 6

College Science Laboratory Hazard Classification

I'd like some advice on how a new college science laboratory should be classified. Should it be light hazard (as educational) or ordinary hazard?

ANSWER: In order to fully answer the question, you may need a copy of NFPA 45, Fire Protection for Laboratories Using Chemicals. Material extracted from NFPA 45 appears in Section 13.8 of the 2002 edition of NFPA 13 and Section 21.9 of the 2007 edition.

Class A and B laboratories are to be protected in accordance with the Ordinary Hazard Group 2 rules of NFPA 13. Class C and D laboratories are to be protected in accordance with the Ordinary Hazard Group 1 rules of NFPA 13. Laboratories are divided into these four classes based on the quantity of flammable liquids and whether or not they will be stored in cabinets. So, while NFPA 13 specifies the protection, you'll need NFPA 45 to determine into which class your lab falls.

QUESTION 7

Earthquake Restraint Using Slender Hangers

Why does Section 9.3.6.1 (5) of NFPA 13 (2007 edition) now require hangers used for restraint to have a slenderness ration of 300 or less? It has been common practice for many years to use hangers installed on a 45 degree angle for restraint against seismic motion.

ANSWER: The Committee agreed that the restraint option using angled hanger rods should be specifically included since it was reported that some AHJs were prohibiting this practice. The maximum slenderness ratio was added to the text without much discussion in Committee. In our opinion, since restraining devices are not required to be listed, and since this option has field experience behind it, it may be still possible to use a hanger with a slenderness ratio higher than 300 with the approval of the Authority Having Jurisdiction. We should caution that, in some instances, the rod could get long enough where it may exhibit similar characteristics to wire. This means that the compressive strength of the rod would be negligible and a second angled hanger on the opposite side should be installed. In order to comply with the letter of the 2007 edition of NFPA 13, the maximum slenderness ratio does need to be met. This would mean for 3/8-inch rod the maximum length permitted is 2 feet 4 inches as noted in Table 9.3.5.8.8 (c).

QUESTION 8

Suction Piping Materials

CONTINUED ON PAGE 15

What's new from TOLCO!

NEW Swivel Attachment*

- Connects hanger rod to pitched roof
- Upper attachment for end of branch line restraint
- Seismic upper attachment for hanger rod
- Up to 90º swivel capabilities
- UL listed for 3/8" rod size, up to 4" pipe size load capacity

*Patent Pending

NEW Double Offset Hanger for CPVC*

- 1-1/2" x 1-1/2" double offset for 3/4" and 1" pipe
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- No pre-installation required
- Uses standard #10 x 1" screws, supplied with all TOLCO CPVC hangers
- UL listed as a hanger and restrainer for fire sprinkler pipe

*Patent Pending

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CONTINUED FROM PAGE 13

We have 100 ft inside a building to get between the service entrance and the pump flange. We seem to recall the suction piping for a fire pump was required to be galvanized. The piping up to the check valve or backflow preventer would meet the local water utility's requirements for materials, which in our area means galvanized. We are talking about the portion between the check valve and the pump suction flange. Looking in NFPA 20, Section 5.13.1.2 is the closest we can find to a specific requirement, although this just says when corrosive water conditions exist, galvanize or paint. Arguably, the suction piping is subject to no more corrosion than the system piping. Is there anything more specific or any further suggestions on the suction piping materials?

Also, how do we interpret the term "corrosive water conditions"? Is this section only referring specifically to MIC-related issues or is there more to it? If it is referring to more than MIC concerns, is there some sort of industry standard that can guide us in determining at what point water qualifies as "corrosive"?

ANSWER: Section 5.13.1.1 of NFPA 20, (2007 edition) states, "Steel pipe shall be used above ground except for connection to underground suction and underground discharge piping." Steel is required for its strength and resistance to impact. However, there is no requirement that calls for galvanized steel. Galvanizing is one way to protect the steel pipe if there are corrosive water conditions as noted in Section 5.13.1.2, but if the water conditions are not corrosive then black steel can be used. Typically, the water authority would know if the water is corrosive. The section is meant to address all types of corrosion, not just MIC. In fact, the section was written before the fire sprinkler industry became aware of MIC. If you go back to the 1990 (and prior) editions of NFPA 20, you'll find that section 2-8.1 reads, "To prevent tuberculation, suction pipe shall be galvanized or painted on the inside prior to installation, with a paint recommended for submerged surfaces. Thick bituminous linings shall not be used." As you can see, the Committee was trying to prevent deterioration of the suction pipe, which would increase friction loss and potentially have the pump running at a negative gage pressure at the suction flange. There was also a concern about pipe scale getting caught in the impellor of the pump, especially those pumps with narrow distances between the shrouds. For the 1993 edition of NFPA 20, the committee changed the language to what you see today. They did it with the following statement, "Committee experience is such that most water quality is good enough that this provision is typically not practical for all situations. The provisions should remain for those situations where the water is of a corrosive nature." (See the Committee Statement on proposal 20-25 in the Technical Committee Report for the NFPA Annual Meeting in 1993, page 133 of the TCR). So, as you can see, the committee believes that typical water supplies are not the problem. But there are some water supplies where the chemical composition is such that the water tends to corrode steel more quickly than the typical situation. Unfortunately, the committee was not able to quantify these issues, so the situation is left up to the judgment of the Authority Having Jurisdiction. The intent of the Committee seems clear that the paint or protection should only be required where the water supply tends to corrode steel faster than normal. Experience with other steel pipes on the same water supply should be sufficient for determining whether there is a problem or not.

QUESTION 9

Hazard of Diesel Fire Pump Rooms

Is there any written code or guideline that classifies what hazard a diesel-driven fire pump room is? I've been directed to use a 0.25 gpm per sq ft density for the area, but I've also been told by others that the room should also be considered an Extra Hazard Group 1 hazard, regardless of density. I would like to utilize Extended Coverage Ordinary Hazard sprinklers in the area, but if it is technically an extra hazard then I cannot do that.

ANSWER: There is nothing directly addressing the classification for pump rooms in either NFPA 13 or NFPA 20. However, there is guidance in NFPA 37, the standard for protecting Stationary Combustion Engines used for fire protection. Section 11.4.5 of the standard (2006 edition) specifies a density of 0.3 gpm per sq ft over 2500 sq ft and sprinkler spacing at a maximum of 100 sq ft. The annex note to this section references the use of Extra Hazard Group 1 for the protection of the room.

QUESTION 10

Control Valve Positions During Fire Pump Testing

In performing a pump test on a diesel pump protecting a high rise building, is it mandated that the control valve serving the sprinkler systems be closed?

ANSWER: NFPA 25 expresses a preference for keeping the control valves to the fire protection system open during fire pump testing. This can be found in Section 4.5.2 of NFPA 25 (2002 edition), which states that water supplies to fire protection systems, including fire pumps, need to remain in service during testing. This section in NFPA 25 does provide the option of closing the control valve and taking the system out of service if you follow the impairment procedures of Chapter 13 in that document. This would require some special conditions such as evacuating the building or providing a fire watch or limiting the activities in the building until the water supply was restored to service.

This section was added to NFPA 25 after a significant loss in a facility where a fire occurred while a pump was being tested. The control valve had been closed during the testing and, by the time word got back to the pump room to open the valve, significant damage occurred. However, in the newly-issued 2008 edition of NFPA 25, the closing of valves will not be considered an impairment provided qualified personnel are in attendance so as to be able to promptly open the valves in the event of an emergency.

New Members

CONTRACTOR

Steve Cartales
Delta Fire, Inc.
Portland, Oregon

Joseph Davis
Davis Mechanical Inc.
Springfield, Illinois

Caroly Ostlund
Ostlund's Fire Protection, Inc.
Huntley, Montana

Cathy Hrabik
ABC Fire Protection, Inc.
Aurora, Colorado

PROFESSIONAL

Daryl R. Bailey
DRB Fire Inspection Services
Tangerine, Florida

Richard Lennerth
Valrico, Florida

Lloyd Herndon
BSW International, Inc.
Tulsa, Oklahoma

Paul McKeon
Hamilton, New Jersey

John Banasiewicz, Jr.
Murfreesboro, Tennessee

SUBSCRIBERS

Roger Stewart
City of St. Peters
St. Peters, Missouri

Ed Berkel
Mehlville Fire Protection District
St. Louis, Missouri

Dennis Bonneau
City of Bradenton Fire Department
Bradenton, Florida

Maria Queirolo
Prince Georges County
Fort Washington, Maryland

Mark Tarabochia
Bellingham Fire Department
Bellingham, Washington

Gregory Sluys
Bellingham Fire Department
Bellingham, Washington

Kurt Duey
Bellingham Fire Department
Bellingham, Washington

Chris Rowland
Clifton Fire Department
Clifton, Colorado

Bob Mendez
San Bernardino County Fire Department
San Bernardino, California

Traci Harvey
Spokane Valley Fire Department
Spokane Valley, Washington

Wayne Janish
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Strasburg, Colorado

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BY DON PAMPLIN

A few months ago, I saw a sign that said…

"Victory is Crossing the Starting Line"

The sign was in Salem, Oregon on Commercial Street and it was advertising the Portland Marathon and the message was clear…..you can be a winner without winning the marathon or even winning within your age and gender classification. You're a winner by just being there and making an effort to accomplish your personal best just for you.

There are a lot of situations in life that simply require a starting point in an effort to achieve something. You don't have to be the best to be a winner. It just requires you to make a start and finish what you started. The benefits of your effort will bring huge rewards to you and those around you who love you and want you to succeed. Consider those who start the following:

– to lose weight;

– to quit smoking;

– to cut back or quit drinking;

– to stop social drug use;

– to get out of credit-card debt;

– to have a better relationship in your marriage;

– to work smarter and be more productive in your vocation;

– to listen more than talk;

– to help those who need more help than you do.

In the world of fire protection, there are numerous examples of crossing a starting line and being successful!

During my career as a firefighter and fire officer, I saw hundreds of examples where people looked at a situation and simply said…"there has to be a better way to do that!" And that usually produced a starting point of research and development that eventually created changes that corrected or improved the original situation or problem. Nearly every piece of equipment that a firefighter uses today in protecting their community went through this process and the resulting benefits were significant. Were the changes along the way always a clear winner and the absolute best way? Not always, but what really mattered more was the fact that a process to improve was started and that process over a period of months and years did in fact produce winning situations. I don't have space here to list them but you can review them in a historical book I have started to write and of course fire sprinklers will be a significant part of that literary effort. But there are other significant examples that will be told and one of them is how some concerned people a few years ago asked the question…

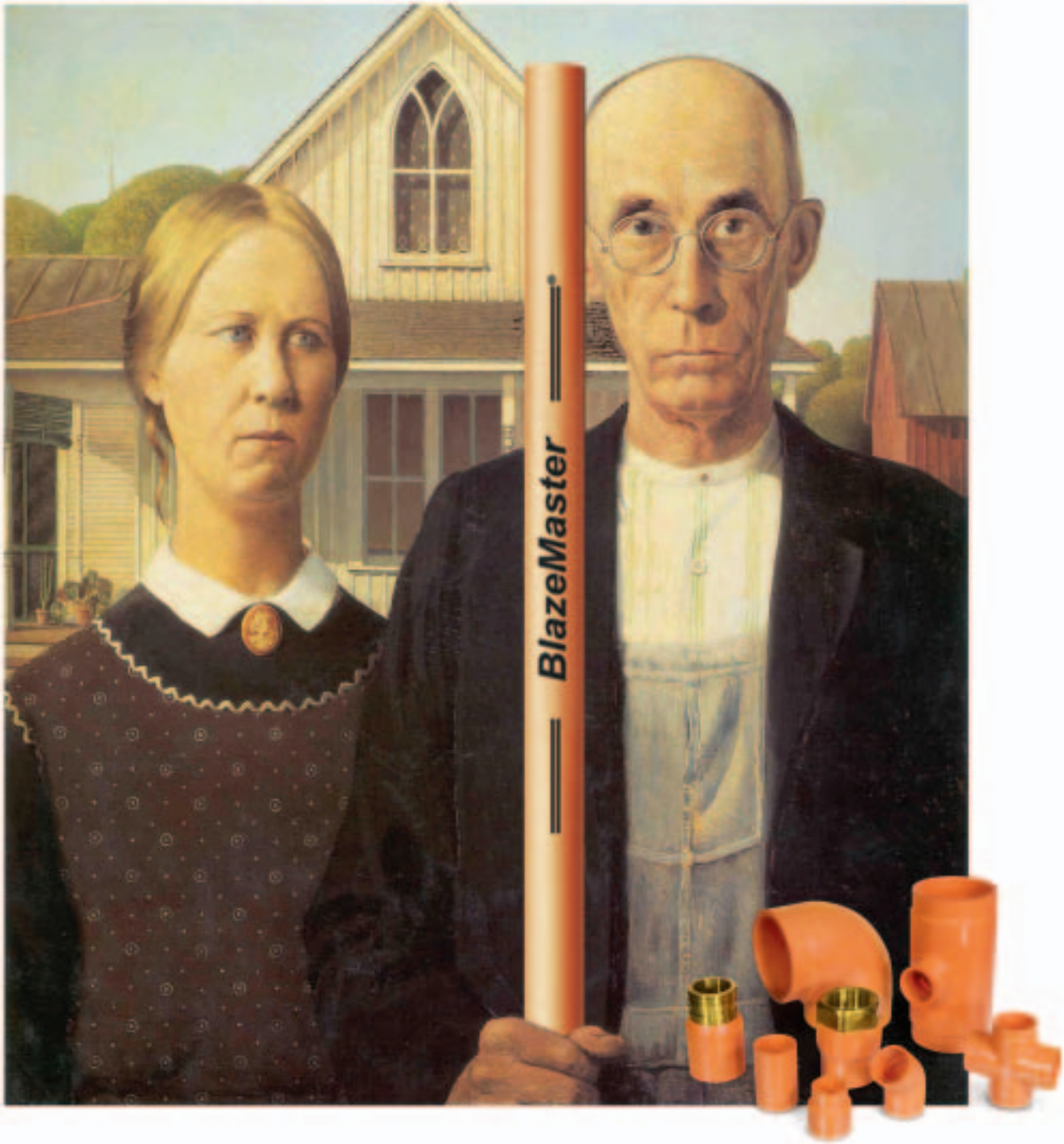
"What can we do to stop people from dying in fires caused by a smoldering cigarette"?

During the late 1980's, Bill McCrossan, who was then the Fire Chief of New Orleans, came-up with an answer. Make a cigarette that won't smolder and will go out if you don't puff on it. I don't know if Bill was the "first" person to actually come-up with the idea but it was those kind of thoughts that eventually gained support and momentum from many Fire Chiefs and Fire Marshals throughout North America. People crossed the starting line on this problem and after years of perseverance and with the support of consumers, elderly and disabled rights advocates, medical and public-health practitioners, the momentum continued to grow. It grew because they came together as a Coalition for Fire-Safe Cigarettes on March 16, 2006 which was being coordinated by the National Fire Protection Association (NFPA).

How bad are those smoldering cigarettes when it comes to public safety and property losses? According to the latest NFPA reported statistics:

CONTINUED ON PAGE 21

Don Pamplin
NFSA's Regional Manager for the Pacific Northwest.



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- *Only ancillary system compatible program in the world*
- *Largest national non-metallic piping system installation training program*

No overhead sprinkler system is easier to install than a BlazeMaster CPVC system. From the inventors of CPVC, it's made from a lightweight, semi-flexible material that needs no pre-fabrication and alterations can be handled on-site.

With over one billion feet of piping systems installed in over 50 countries since 1984, and with more listings and approvals than any other non-metallic fire sprinkler piping system, BlazeMaster is the most recognized and specified non-metallic fire sprinkler piping system in the world.

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CONTINUED FROM PAGE 19

- Cigarette-ignited fires are the leading cause of home fire deaths in the United States;
- Approximately 700-900 people die every year in those cigarette home fires;
- Thousands of victims suffer devastating burn and lung injuries;
- Property losses total millions of dollars each year;
- One in four cigarette fire victims is not the smoker;
- Many of the victims are innocent children.

And now I'm proud to announce that Alaska Governor Sarah Palin has extended our nation-wide reach for fire-safe cigarettes by becoming the 15th governor in 2007 (the 21st overall) to sign legislation mandating fire-safe cigarettes. Alaska has the sixth highest smoking rate in the United States. Governor Palin said: "I am proud to sign this bill into law requiring the use of fire-safe cigarettes in Alaska. Not only does this directly benefit Alaska, it will benefit the nation as a whole". Congratulations to Senator Donnie Olson and Representatives Reggie Joule and Carl Gatto for their strong support of this legislation.

But as always, things get done when local advocacy groups band together and in Alaska, the legislation may not have happened as quick had it not been for the persistent efforts of the Alaska State Fire Marshal's Office, the Alaska Fire Chiefs Association and the Alaska State Firefighters Association with special recognition and thanks to Rusty Belanger, Assistant State Fire Marshal, Warren Cummings, President of the Alaska Fire Chiefs Association and Jason Elson, Chairman of the Legislative Committee of the Alaska Fire Chiefs Association.

As of this date, nearly half of the U.S. population lives in states where fire-safe cigarette laws have passed or are in effect. Here's the tally:

States with cigarette laws in effect: New York (2004), Vermont(2006), California(2007) and Oregon(2007).

States with laws passed but have not yet taken effect: Alaska, Connecticut, Delaware, Illinois, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, Rhode Island, Texas and Utah.

States that have filed legislation: Alabama, Arizona, Michigan, Nebraska, North Carolina, Ohio, Pennsylvania, Tennessee, Washington, Wisconsin,

There are 19 States to go and it will continue to happen because concerned people have already crossed the starting line!

NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

The Industry Advancement Fund

NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

The NFSA Industry Advancement Fund

Introduction

NFSA has initiated a fund for the advancement of the fire sprinkler industry for any sprinkler contractor, Supplier, Manufacturer, individual or organization to participate in on a totally voluntary basis. The Industry Advancement Fund will supplement the efforts of the Sprinkler Manufacturers Industry Fund and Industry Promotion Funds. Such promotional efforts include, but are not limited to legislative efforts to pass the Fire Sprinkler Incentive Act and to support the following programs and organizations:

- Design Advantage Program (Architect Training)
- Best Practices
- Center for Campus Fire Safety
- Campus Fire Watch
- Fire Team USA (and Fire Team Tennessee)
- Home Fire Sprinkler Coalition
- Adoption of fire sprinklers in the International Residential Code (IRC)
- Advertising and public relations to promote the fire sprinkler concept

The sprinkler industry is on the verge of vastly expanding current markets through legislative and code initiatives intended to result in 100% sprinkler requirements for all new commercial construction and retrofit of existing high-rise buildings. Meanwhile, the residential market offers fire sprinkler industry concerns the opportunity to expand their businesses and garner additional market share while providing life saving protection to the public.

Business Opportunity

The Chairman of the Board of NFSA, Mr. Wayne Gey, suggested the establishment of such a Fund at the NFSA Annual Seminar & Exhibition in Las Vegas in May of 2007. Subsequently, NFSA approached several contractors and inquired whether a vehicle could be established to permit any business, individual or organization to supplement industry promotion efforts already established by NFSA Sprinkler Manufacturers and union contractors. As a result, the NFSA Industry Advancement Fund has been established to offer Contractors, Suppliers, Manufacturers and others the opportunity to provide additional revenue to support those efforts and to increase the sprinkler market. It would also allow those who participate to be publicly listed as supporting these special promotional efforts. In addition to being publicly recognized as a contributor to the Fund, Suppliers and Manufacturers making contributions to the Fund will be given credit in the current booth selection process administered by NFSA's show management firm, Exhibit Promotions Plus.

Current Business Position

Currently, there is no vehicle available for many contractors and others to participate in industry promotion efforts. The creation of this Fund provides such a vehicle.

Product/Service Description

The Industry Advancement Fund is a Section 501(c)(6) tax exempt organization under the IRS code. Contributions, except money used for lobbying efforts, are tax deductible. The Fund is separate from all other Industry Funds and NFSA. Contributions and expenditures are not commingled with other Funds or NFSA finances. All participants will receive annual audited statements reflecting all activity. All disbursements must be approved or directed by the Board of Trustees and all checks written must be signed by the NFSA President and NFSA Financial Controller.

Board of Trustees

The Fund is be administered by a Board of Trustees consisting of the President and the Executive Vice President of NFSA and three contributors elected from those participating in the Fund.

Financial Potential

Several voluntary contribution levels are available. They are:

- $2,000: Industry supporter;
- $5,000: Industry promoter;
- $10,000: Industry Bronze level promoter;
- $20,000: Industry Silver level promoter;
- $30,000: Industry Gold level promoter; and,
- $50,000: Industry Platinum level promoter

Contributions may be paid on an annual basis, or in twelve equal monthly installments. The above contribution levels are intended to provide interested contributors with some guidelines within which to make such a contribution but should not be considered limitations.

Summary

Adoption of this Plan by the NFSA Board of Directors has resulted in providing a vehicle for Contractors, Suppliers, Manufacturers and others to finance industry promotion efforts, much the same as unionized contractors and Sprinkler Manufacturers have done for many years. Again, participation in the Industry Advancement Fund is strictly voluntary.

To make a contribution, follow the Industry Advancement Fund link at the NFSA website at www.nfsa.org

Contributors so far:

Wayne Gey, Wayne Automatic Fire Sprinklers	$30,000	Gold level industry promoter
Rich Ackley, Dalmatian Fire, Inc.	$10,000	Bronze level industry promoter
Mark Tate, Northstar Fire Protection of Texas	$10,000	Bronze level industry promoter
Dennis Coleman, Engineered Fire Protection	$10,000	Bronze level industry promoter
Gregg Huennekens – *personal contribution of...*	$10,000	Bronze level industry promoter
Bruce LaRue – *personal contribution of...*	$2,000	Industry supporter

How Can I Get Training?

BY BOB TREIBER

At NFSA we get several requests on a daily basis from contractors, design professionals and building and fire code officials who need water-based fire protection training. Some of the individuals need continuing education training and some just need to gain more knowledge concerning water-based fire protection. Whatever your needs are, the NFSA can help you meet your training needs. The first place we suggest you look at is the NFSA website, nfsa.org. When you get to the home page of our site you will find a group of white blocks with subjects in red letters. Go down the list until you find the block marked "seminars" and click on the box. It will take you to the main Training and Education Seminars that are available.

You will see that you can receive training in two formats: (1) On-site Seminars and On-line Seminars. You can then pick the format that works best for your training needs such as on-site, one-, two- and half-day seminars – you now have over 20 seminars to choose from – or the on-line training programs that will let you do your training from your computer location. You will find that there are several on-line training formats available; live interactive business seminars, live interactive technical seminars, the NFSA Academy, which has over 100 modules available and is available 24/7, and the six-week Self Improvement programs.

There are also the On-site Technician Training Programs that range from a 3-day ITM NICET program to a two-week Layout Technician Seminar. Also available is the Hybrid Training program which will assist the individual with career development training, such as beginning management training.

At this point you only need to click on the selected choice and the types of training programs available will be indicated along with the locations and dates. If you have any further questions you may contact Mike Repko, the NFSA Seminar Coordinator or me. You can reach Mike at 845.878.4200 ext. 120 or email mrepko@nfsa.org. You can reach me at 937.433.0099 or email treiber@nfsa.org. You can also contact a NFSA Regional Manager for training assistance. To reach your Regional Manager go to the NFSA home page and in the white blocks select "departments," select the region you are in and the Regional Manager's contact information will be provided.

Many of the NFSA seminars are approved or recognized for continuing education programs by several state building and fire agencies throughout the USA, the American Institute of Architects (AIA), NICET and many of the NFPA certification programs.

If you are interested in hosting an NFSA On-site Seminar and have a facility that can provide a table and chair setup for 30 people with a projection screen, contact your Regional Manager or me for further details. The one-, two-, and half-day seminar are usually set up to run for three days (Tuesday through Thursday) and a minimum of 10 weeks lead time is needed to setup an on-site seminar. A minimum of 15 students is necessary for a seminar to be held.

Specialized training programs which can be accomplished through what is called a contracted seminar are also available, these types of seminars are established using a basic flat fee and the sponsor can then determine which subjects they need and who and how many attendees they wish to attend. This format has been popular with companies, industry associations and code associations. If you are interested in a special contracted seminar, contact me at treiber@nfsa.org. Whatever your training needs are, NFSA can help you to meet them.

"NFSA: Leading the World in Water-based Fire Protection Training"

Bob Treiber

Based in Centerville, Ohio, Bob is NFSA's Director of Training & Education

2008 On-line Seminar Descriptions

DATE	TOPIC	INSTRUCTOR
January 29	**Wet Systems**	Victoria B. Valentine, P.E.
February 12	**Dry and Preaction Systems**	Russell P. Fleming, P.E.
February 26	**Antifreeze System Updates**	Kenneth E. Isman, P.E.
March 11	**NFPA 13R Systems-Outside the Dwelling Unit**	Cecil Bilbo, Jr.
April 1	**Foam Sprinkler Systems Update**	Russell P. Fleming, P.E.
April 22	**Water Supply Systems**	Cecil Bilbo, Jr.
May 6	**Exposure Protection Systems**	Russell P. Fleming, P.E.
May 20	**Water Cooling Towers**	Michael Friedman, P.E.
June 10	**Standpipes, Pressures and Pumps**	Kenneth E. Isman, P.E.
June 24	**The Extent of Systems**	Jeff Hugo

Systems Update
For the first half of 2008, the NFSA "Technical Tuesday" Online Seminars will focus on recent changes in system requirements. In each of ten selected subject areas, the seminars will feature an update on rules changes that are important to fire sprinkler contractors, technicians, and authorities having jurisdiction. The seminars will present information not only on the changes themselves, but in many cases on the research, deliberations and intentions behind the changes, which provide valuable insights needed for proper application.•

The following are the descriptions for each class:

January 29, 2008
Wet Systems
Victoria B. Valentine, P.E
Director of Product Standards
Basic/Intermediate
Wet-pipe sprinkler systems are the baseline type of sprinkler system. This seminar will review what makes a system a system. Common questions that arise such as how to define a system, how to define a riser and what are the functions of the system connections will also be addressed. Other items that will be included are system sizes, corrosion issues and pressure reducing valves.•

February 12, 2008
Dry and Preaction Systems
Russell P. Fleming, P.E.
Executive Vice President
Intermediate
The 2007 edition of NFPA 13 incorporated some important new changes with regard to both dry pipe and preaction systems. The new rules affect water delivery times, pitching requirements, and freezer protection options. Discussion will also be included on system attributes that affect valve trip, water delivery time and other aspects of system performance. It will also address variations of preaction systems, including some that are not specifically addressed within NFPA 13.•

February 26, 2008
Antifreeze System Updates
Kenneth E. Isman, P.E
Vice President of Engineering
Intermediate
In the 2007 edition of NFPA 13, many changes were made regarding the use of antifreeze systems including the calculation techniques that are required to be used and the concentrations of solutions that are permitted. This seminar will provide an overview of antifreeze system requirements, review and explain the basis behind the changes in the 2007 edition, and provide examples of how to perform the new calculations.•

March 11, 2008
NFPA 13R Systems – Outside the Dwelling Unit
Cecil Bilbo, Jr.
Director of Technical Services
Intermediate
NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, has two different levels of protection required. The protection requirements "inside the dwelling" can be less demanding than "areas outside the dwelling." Participants will learn what portions of a building need to follow the rules for areas outside of the dwelling. The correct type of sprinkler for these applications will be identified, as will the density and area requirements. There will be references to both NFPA 13 and NFPA 13R. Participants should be ready to move back-and-forth between these standards to gain a thorough understanding on when and how to identify these areas.

April 1, 2008
Foam Sprinkler Systems Update
Russell P. Fleming, P.E.
Executive Vice President
Intermediate
This seminar will focus on recent changes to the NFPA standards on foam and foam-water systems (NFPA 11 and 16). The presentation will include a discussion of the use of the Darcy-Weisbach formula for hydraulic calculations for piping carrying foam concentrate. Special attention will be given to the growing acceptance of fixed piping systems employing compressed air foam (CAF) technology. •

April 22, 2008
Water Supply Systems
Cecil Bilbo, Jr.
Director of Technical Services

Basic/Intermediate

When a sprinkler system is called on to help control a fire in a building, the adequacy of the water supply can determine if property and lives will be saved. Understanding the different types of water supplies that can be used in the NFPA Standards will ensure the system works properly. Whether it is a city water supply, fire pump, tank, or a pond, you will need to know the rules that affect the installation, testing, use and inspection of the different types of water supply systems. This seminar will cover a broad review of the rules for each of the types of water supplies allowed for use in fire protection systems. It will also cover some of the federal regulations that have made it into each state and county in the United States.•

May 6, 2008

Exposure Protection Systems

Russell P. Fleming, P.E.
Executive Vice President

Intermediate

Changes to the 2007 edition of NFPA 13 restored long-lost criteria to the standard that is necessary for proper installation of an exposure protection system. This seminar will not only review how that criteria is applied, but review the use of exposure protection systems in the context of the entire need for exposure protection based on the principles of NFPA 80A exposure protection recommended practice and corresponding provisions of model building codes in the United States and Canada. •

May 20, 2008

Water Cooling Towers

Michael J. Friedman, P.E.
NFSA Consultant

Intermediate

Protection of cooling towers falls under the umbrella of "Special Hazards" in the fire protection industry. This seminar will provide an overview of design considerations such as type of cooling tower, materials of construction for towers and system piping. It shall also cover types of fire protection systems, devices, detection methods and design criteria and system testing based on NFPA 214, Standard on Water-Cooling Towers, 2005 Edition.•

June 10, 2008

Standpipes, Pressures and Pumps

Kenneth E. Isman, P.E.
Vice President of Engineering

Intermediate

Standpipe systems in very tall buildings have always been a challenge. Recent changes in NFPA 14 and NFPA 20 have made these systems more difficult to design and install. This seminar will cover the effect of decisions such as breaking up the system into multiple vertical zones, using pressure reducing valves, and using variable speed pumps. The new provisions of NFPA 14 for master pressure reducing valves will also be explored.•

June 24, 2008

The Extent of Systems

Jeff Hugo, Manager of Codes

Basic

Are sprinklers required under a Porte-Cochere? When is an addition a separate building? Does the foundation of a building have anything to do with sprinklers? This seminar will answer those questions that stump the designer and can come out to haunt you in some jurisdictions. The Extent of Systems will go into detail on where to install sprinklers, where the codes and standards designate them, and how to justify their existence or non-existence. This seminar will also summarize the "Systems" theme for the first half of 2008.•

Information and registration for this seminar series is available at www.nfsa.org or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133 or email: dawn@nfsa.org.

Additional NFSA training opportunities include…

NFSA Two-Week Technician Training Classes

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April 7-18, 2008 . . . . . *Orlando, FL*

August 4-15, 2008 . . . . . *Providence, RI*

October 13-24, 2008 . . . . . *Chicago, IL*

November 10-21, 2008 . . . . . *Houston, TX*

For more information, contact Nicole Sprague using Sprague@nfsa.org or by calling 845-878-4200 ext. 149.

In-Class Training Seminars

The NFSA training department also offers in-class training on a variety of subjects at locations across the country. Here are some seminars scheduled between now and the end of 2007:

Dec 11 Pumps for Fire Protection . . . . . *Marana, AZ*

Dec 12 Fire Pump Layout & Sizing (1/2 Day) (A.M.) *Marana, AZ*

Dec 12 Standpipe Systems (1/2 Day) (P.M.) . . . . . *Marana, AZ*

Dec 13 Inspection, Testing & Maintenance . . . . . *Marana, AZ*

For more information on these seminars, or to register, please visit www.nfsa.org or call Michael Repko at 845-878-4207 or email: seminars@nfsa.org.

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K-Factors for Sprinklers in Antifreeze Systems

BY KENNETH E. ISMAN, P.E.

In the 2007 edition of NFPA 13, a change was made to the Plans and Calculations Chapter (section 22.4.4.5.1) to require that large antifreeze systems use a different calculation technique. The concern is that the Hazen-Williams formula does not accurately predict the pressure losses when cold antifreeze is flowing in the pipes and that without sufficient pressure, the water supply might not be able to push the antifreeze out of the system.

This section in NFPA 13 calls for the use of the Darcy Weisbach method of friction loss calculation when the antifreeze system is larger than 40 gallons in size. Previous articles have been written in this magazine on how to perform the Darcy Weisbach calculation (see Winter 2001 Sprinkler Quarterly, pages 27-33). However, this section in NFPA 13 also requires the adjustment of the K-factor of the sprinkler based on the density of the fluid discharging from the sprinkler. This K-factor adjustment will be the focus of this article.

The K-factors that are published for sprinklers by the manufacturers are established with water (between 40 and 100°F). These K-factors (5.6, 8.0, 11.2, 14.0, etc.) are a measurement of how easy it is for the water to escape from the open sprinkler and are a function of the size and shape of the orifice of the sprinkler. The K-factor has units of measure (gpm per psi to the ? power) but these are so complicated that most people ignore them. What most people don't realize is that the thicker a fluid gets, the more difficult it is to get the fluid out of an orifice and the more the K-factor changes.

The engineers at the NFSA have derived a simple formula for varying the K-factor for a sprinkler based on the density of the antifreeze fluid. In order to use this formula correctly, the density of the antifreeze (at its lowest expected temperature) needs to be found. This information is best obtained from the manufacturer or supplier of the antifreeze. Many of these companies are reluctant to provide this information, but we need it in order to comply with NFPA 13. While they are also publishing this information for the k-factor adjustment, they also need to publish the viscosity of the antifreeze solution at various temperatures so that we can plug that into the Darcy Weisbach equations. The simple formula for calculating the new K-factor is:

$$K_A = 7.94 K_W \sqrt{\frac{1}{\gamma_A}}$$

where:

K_A = the new nominal K-factor of the sprinkler with cold antifreeze discharging

K_W = the nominal K-factor of the sprinkler with water discharging

γ_A = the density of the cold antifreeze in pounds per cubic foot

This equation is fairly easy to use. All you need to know is the nominal K-factor for the sprinkler when water is discharging, which can be found in the "Nominal K-Factor" column of Table 6.2.3.1 in NFPA 13, and the density of the cold antifreeze solution. The following examples show how to use this basic formula.

Example 1: A large attic system is being protected with an antifreeze solution that has a density of 66.4 lb/cu-ft. If k-5.6 sprinklers are being used on the system, what is the converted K-factor that should be used in the hydraulic calculations?

Solution to Example 1:

$$K_A = 7.94 K_W \sqrt{\frac{1}{\gamma_A}} = 7.94(5.6)\sqrt{\frac{1}{66.4}}$$

$K_A = 7.94(5.6)(0.123)$

$K_A = 5.47$

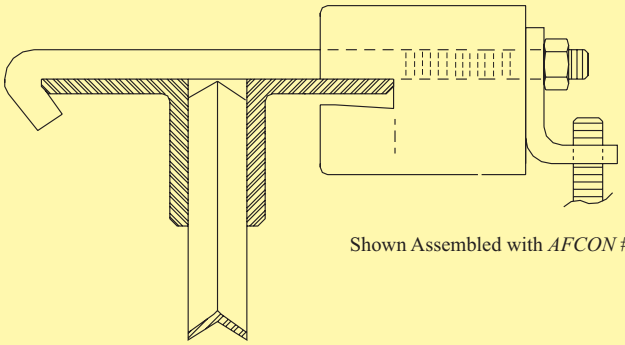
So, the hydraulic calculations would be performed as normal (using the Darcy Weisbach method of calculating the friction loss) and the K-factor of the sprinklers would be 5.47 instead of 5.6.

Example 2: A large attic system is being protected with an antifreeze solution that has a density of 67.8 lb/cu-ft. If k-14 ESFR sprinklers are being used on the system, what is the converted K-factor that should be used in the hydraulic calculations?

CONTINUED ON PAGE 30

Kenneth E. Isman, P.E.
Vice President, Engineering for NFSA. Ken represents NFSA on the NFPA Technical Committee on Sprinkler Systems Installation Criteria.

WHY TRAPEZE?



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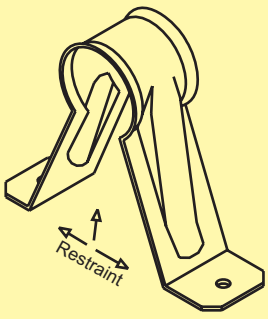

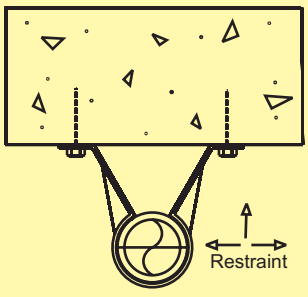

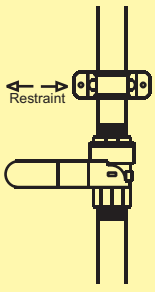

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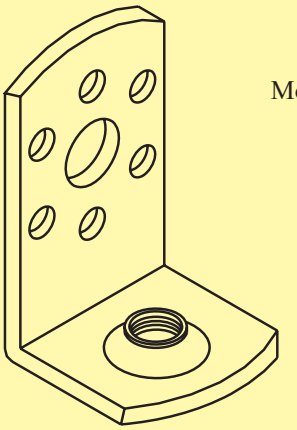

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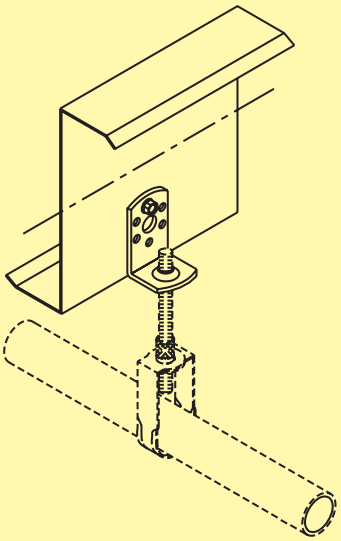

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Solution to Example 2:

$$K_A = 7.94 K_W \sqrt{\frac{1}{\gamma_A}} = 7.94(14.0)\sqrt{\frac{1}{67.8}}$$

$K_A = 7.94(14.0)(0.121)$
$K_A = 13.45$

So, the hydraulic calculations would be performed as normal (using the Darcy Weisbach method of calculating the friction loss) and the K-factor of the sprinklers would be 13.45 instead of 14.0.

For those of you content to know the formula for converting K-factors and not concerned with how the formula above was derived, you can stop reading here. For the math geeks in the industry that want to know how the formula was derived, you can keep reading the rest of this article.

Conservation of Energy

More than 250 years ago, Daniel Bernoulli, a Swiss scientist and mathematician published a formula (probably developed with his father and other family members) that uses a simple concept that has helped to solve hundreds of engineering problems. The simple concept that he proposed was that all of the energy in a dynamic fluid system needs to be accounted for. The energy of a droplet of fluid at one place in the system (expressed as a mathematical equation) would need to be the same (or equal to) the energy of a droplet of fluid at a different location in the same system, minus any friction losses that occurred between the two points. The equation has become known as the Bernoulli Formula (or Bernoulli Equation) and is most often represented by the following symbols:

$$\frac{P_1}{\gamma} + \frac{v_1^2}{2g} + z_1 = \frac{P_2}{\gamma} + \frac{v_2^2}{2g} + z_2 + P_{fl}$$

where:
P_1 = Pressure of the fluid at point 1
γ = specific weight of a fluid (simplified with a units conversion to be the density in pounds per cubic foot)
v_1 = velocity of the fluid at point 1
g = acceleration due to gravity
z_1 = elevation head of the fluid at point 1
P_2 = Pressure of the fluid at point 2
v_2 = velocity of the fluid at point 2
z_2 = elevation head of the fluid at point 2
P_{fl} = friction loss between points 1 and 2

The Bernoulli Equation can be used to analyze the situation of a water droplet being released from inside of a sprinkler pipe at an open sprinkler. If the energy condition of the water droplet just inside the pipe at the sprinkler is considered "point 1" and the energy condition of the water droplet just outside of the pipe (just before the droplet hits the deflector) is considered "point 2" the Bernoulli Equation can be used to predict the flow of water from the sprinkler. In the case described above, most of the variables of the Bernoulli Equation become zero (or close enough to zero that they can be ignored) and the equation boils down to:

$$\frac{P_1}{\gamma} = \frac{v_2^2}{2g}$$

Multiplying both sides of the equation by 2g to get the velocity component by itself, we get:

CONTINUED ON PAGE 31

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$$v_2^2 = \frac{P_1(2g)}{\gamma}$$

Then we end this portion of the analysis by taking the square root of both sides of the equation to express the velocity of the fluid as it exits the sprinkler orifice as the following:

$$v_2 = \sqrt{\frac{2gP_1}{\gamma}}$$

We will leave this formula for now and come back to it in a few paragraphs.

Conservation of Flow

Another of the simple concepts that has been used to solve a large number of engineering problems is the Conservation of Flow. This basic concept states that all of the flow that goes into the system at a point needs to be equal to all of the flow that leaves the system at that point. In other words, all of the fluid needs to be accounted for. Fluid does not just disappear. If the fluid is flowing in a system of pipes, the Conservation of Flow formula can be written as:

$$Q = AV$$

where:

Q = flow in the pipe measured in cubic feet per second

A = cross sectional area of the pipe in square feet

V = velocity of fluid flow in the pipe in feet per second

Note that the units are very important. In order for this simple equation to work, the units of flow and area are not in the typical units used in the fire sprinkler industry. In order to use this formula, flow in gallons per minute would need to be converted to flow in cubic feet per second. And the area of the pipe would need to be converted from square inches to square feet.

As the fluid leaves the piping system, the equation for the conservation of flow changes a little bit. We can utilize the change, and revise the formula to work in more common units for the fire sprinkler industry with the following formula:

$$Q = CAV$$

where:

Q = flow leaving the orifice measured in gallons per minute

C = a constant having to do with the shape of the orifice (measuring the ease with which the fluid can get out of the open orifice) and correcting for the conversion of units from cubic feet per second to gpm and from square feet to square inches

A = the cross sectional area of the orifice in square inches

V = the velocity of the fluid leaving the orifice in feet per second

Note that the V in the equation above is the same variable as the v_2 in the discussion of the Bernoulli Equation in previous paragraphs. We will take advantage of that similarity in a moment. First, we will work on the cross sectional area of the orifice. With all sprinklers, the cross sectional of the orifice is a circle with the area measured by the following formula:

$$A = \frac{\Pi D^2}{4}$$

where:

"D" is the diameter of the orifice in inches. This formula can be substituted into the Conservation of Flow formula, while at the same time, the version of the Bernoulli Equation that expresses the velocity of flow from an orifice can also be substituted into the Conservation of Flow formula to make the following:

$$Q = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{\frac{2gP_1}{\gamma}}\right)$$

We can then take the gravity and density variables out of the square root with the pressure by making the following revision:

$$Q = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{\frac{2g}{\gamma}}\right)\sqrt{P_1}$$

We can then take every variable in front of the square root of the pressure and assign it the variable "K" to represent it as follows:

$$K = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{\frac{2g}{\gamma}}\right)$$

Using this simplification of "K", we can derive the simple formula that everyone in the sprinkler business recognizes for the flow from a sprinkler orifice:

$$Q = K\sqrt{P}$$

Within the variable "K", most of the unknowns are constants. The shape of the orifice and the conversion of units (C) will not change. The diameter of the sprinkler orifice (D) will not change. The gravity of the earth (g) will not change (assuming we keep this fire protection system close to the earth and don't plan on using it on the International Space Station or on some future moon base). The only real variable here is the density of the liquid. For water between 40 and 100°F, the density of water is fairly constant, and so the K-factor expressed in Table 6.2.3.1 of NFPA 13 is considered a constant when water is the fluid being used in the fire protection system.

But as you can see, the variable "K" is tied to the density of the fluid discharging from the orifice. Different fluids with different densities will produce different K-factors. This is what NFPA 13 is asking people to recognize as they perform calculations on large antifreeze systems.

Simplifying the Equation

The equation for the K-factor shown above can be simplified if all of the variables that are a constant are grouped together. We can do this by separating the gravitational constant from the density of the liquid as follows:

$$K = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{\frac{2g}{\gamma}}\right) = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{2g}\right)\left(\sqrt{\frac{1}{\gamma}}\right)$$

We can now define a new constant "T" as being equal to all of the items before the density as follows:

$$T = C\left(\frac{\Pi D^2}{4}\right)\left(\sqrt{2g}\right)$$

We can now write the K-factor equation as follows:

$$K = T\sqrt{\frac{1}{\gamma}}$$

Comparing Water and Antifreeze

The equation shown above for the K-factor works with any fluid and any density. We can set up the following equations for the K-factors associated with water and

CONTINUED ON PAGE 32

antifreeze where the subscript "W" applies to water and the subscript "A" applies to antifreeze:

$$K_W = T\sqrt{\frac{1}{\gamma_W}}$$

$$K_A = T\sqrt{\frac{1}{\gamma_A}}$$

Using basic rules of math (dividing one side of an equation by a number that is not zero as long as we divide the other side of the equation by an equal number), we can set up a simple ratio that compares the K-factor with water in the pipe to the K-factor with antifreeze in the pipe:

$$\frac{K_A}{K_W} = \frac{T\sqrt{\frac{1}{\gamma_A}}}{T\sqrt{\frac{1}{\gamma_W}}}$$

The variable "T" appears in both the numerator and denominator in the fraction on the right side of the equation, so it can eliminated as they cancel each other out. Then, both sides of the equation can be multiplied by the K-factor for water to yield the equation:

$$K_A = K_W \frac{\sqrt{\frac{1}{\gamma_A}}}{\sqrt{\frac{1}{\gamma_W}}}$$

Lastly, we can plug 62.4 lbs per cubic foot into the equation as the density of water (γ_W) and work though the math to get to the final formula:

$$\frac{1}{\sqrt{\frac{1}{62.4}}} = \frac{1}{\sqrt{0.016}} = \frac{1}{0.126} = 7.94$$

We can substitute 7.94 into the equation above to get the final version of the formula:

$$K_A = 7.94 K_W \sqrt{\frac{1}{\gamma_A}}$$

Conclusion

If you made it this far into the article, congratulations, you're a certified math geek. Hopefully, this simple formula will make it easier to comply with NFPA 13 and adjust the K-factors for sprinklers based on the density of the fluid that is flowing in the system. You can also see that there is some science behind this formula and the way it was derived so that you have some confidence in its use.

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BY VICTORIA B. VALENTINE

Mezzanine Protection

Buildings that contain a mezzanine level can often pose a challenge to the person laying out the fire sprinkler system. According to the International Building Code (IBC), 2006 Edition, a mezzanine is defined as "An intermediate level or levels between the floor and ceiling of any story and in accordance with Section 505." It is an intermediate level between stories, but in actuality can come in many shapes, sizes and materials. These variations can change the type of protection that is necessary for them.

The IBC goes on to give benefits to mezzanine areas that are protected by an NFPA 13 sprinkler system. For example, Section 505.2 Exception #2 allows the mezzanine area to be one-half the area of the room for non-combustible construction. This is an increase from one-third when there is no sprinkler system.

To begin protecting the mezzanine area, NFPA 13, 2007 Edition, Section 8.2.2 states, "the floor area occupied by mezzanines shall not be included in the area limits of 8.2.1." This means that a sprinkler system in an ordinary hazard occupancy, which is limited to 52,000 ft2 (4831 m2), could have an additional 15,000 ft2 (1394 m2) mezzanine protected by the same sprinkler system without any additional subdivision. The guidance indicates that the mezzanine is a separate hazard area by being at a different level. This treatment of the mezzanine should be done when the floor of the mezzanine level is a construction of a typical floor, meaning it would collect heat, smoke and gases below and truly separate the fire from spreading either above or below the floor. This would leave the sprinklers at the ceiling level to protect the hazard commodity on the mezzanine and the sprinklers below the mezzanine to protect the hazard/commodity on the floor.

However, when the floor of the mezzanine is made of open metal grating, the rules of the space need to be re-thought, although there is not a specific directive in NFPA 13. With this scenario, the heat, smoke, and gases can transfer readily through the grating. Especially in storage areas, this should be a large concern as fire spreads the fastest vertically and open grating can allow that spread to occur.

One way to approach this is to plan for the ceiling sprinklers to protect the entire height from the floor to the top of items on the mezzanine. Another method may be to place barriers on the grating to block the heat and gases from readily traveling above the mezzanine level. In cases where there are rack structures above, below or both this can also affect whether or not in-rack sprinklers are necessary or the amount of in-rack sprinklers that are necessary.

When sprinklers are installed below the mezzanine, which is open grating, protection from water spray above the sprinklers needs to be taken. These sprinklers should be intermediate level/rack storage type sprinklers or they must be shielded from the discharge of the ceiling sprinklers. These precautions help to resist any cold-soldering effects.

In addition to the information above Section 22.5.1.5 of NFPA 13 deals with mezzanines that are in areas protected with a pipe schedule system. It states, "Buildings having slatted floors or large unprotected floor openings without approved stops shall be treated as one area with reference to pipe sizes and the feed mains or risers shall be of the size required for the total number of sprinklers." This indicated that when there are openings such as slats or grates that the heat is expected to be both above and below the mezzanine. Therefore, the risers and mains need to be sized as if all the sprinklers for that space could be operating at the same time.

In general, the standard shows a concern for heat moving between spaces. Openness of a mezzanine floor can create problems when it is not protected based on the type of fire that can be anticipated for the hazard/commodity and the given arrangement. This may mean considering the hazard above and below the mezzanine as one unit instead of two separate pieces. Common sense is sometimes necessary in order to properly protect these types of spaces as there are currently no direct statements from NFPA 13 specifically on mezzanines that are comprised of open construction materials like metal grating.

Victoria B. Valentine, P.E.
NFSA's Director of Product Standards

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LEAP Into 2008 and Help the NFSA Get New Members!

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Can you smell the popcorn? Can you see the clouds of purple and pink cotton candy floating by as you are being guided by your companions to the midway to play those games of chance?

As your party get closer to the action, all eyes widen as that huge stuffed animal on the top prize shelf comes into view. You just know you will probably have to rent a U-Haul to get home with all your winnings, you being the Super-Hero that you are! You want to show your companions the ease of how you can make their dreams come true. You're just not going to win a prize for yourself. You're going to win one for everybody! Now, the decision on what game is going to be the easiest and fetch the largest prize. Will you wimp out and choose the balloon darts, which, aside from the floating ducks, has to be the easiest win, or take a step up and aim for that clown's mouth and hope to be the first to pop the balloon? Never! You head to the game where you show your top notch skills by dropping that regular size ball into that ever-so-small hoop, or better yet, precisely launching that frog onto that floating revolving lily pad. You probably didn't win at your first try but that didn't stop you from playing until your wallet was empty and your prize, 'Clifford the Big Red Dog,' was yours to bring home, and you were the Super-Hero of the day!

Well now, just think of NFSA as one of your bright-eyed companions. It is your chance to be a Super-Hero and get that prize for NFSA. What prize, you may ask? In keeping with the upcoming leap year, we are currently running a "Take the 29 Leap" campaign to seek out new Supplier, Distributor and Manufacturing members. This campaign offers new SAM members a 29% discount on membership dues, as well as a 29% discount on any advertising package for our bi-monthly magazine SQ. You can log onto our website, nfsa.org, for the details. This special campaign will run until February 29th. You can help us win by getting us a new SAM member!

We are asking our Contractor members, when paying an invoice, to place our SAM cards in with the check to those suppliers, distributors or manufacturers that are not listed on the back of the card. The card simply states that you know the supplier, distributor or manufacturer that you are supporting is not a member of the NFSA and that you believe they should be.

As you already know, the NFSA is responsible for many of the code requirements and incentives that have helped this industry prosper. The NFSA continues to serve as the "industry association" open to all in the sprinkler industry. Our strength is in our numbers and NFSA needs you to help grow those numbers.

Please contact our publications coordinator, Joanne Genadio, at 845.878.4200 ext.118 and request your free SAM cards today! Together we can make a difference!

Brake Fire Protection in Stafford, CT. 20th Anniversary. Roger Brake (left) and his son Jim Brake (right).

Charles "Chip" Maurer, Fire Protection Division Manager of J. C. Cannistraro, LLC of Watertown, MA receiving the plaque recognizing J. C. Cannistraro's 5th Anniversary as an NFSA member. J.C. Cannistraro, LLC started in 1963, now employees over 300 people and is the largest privately owned mechanical contractor in New England.

Karyn Hudgens
NFSA's Director of Membership

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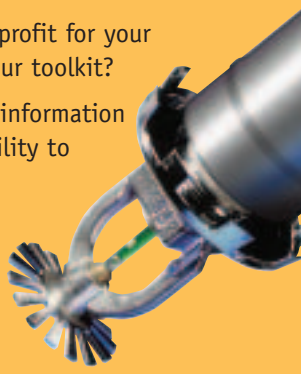

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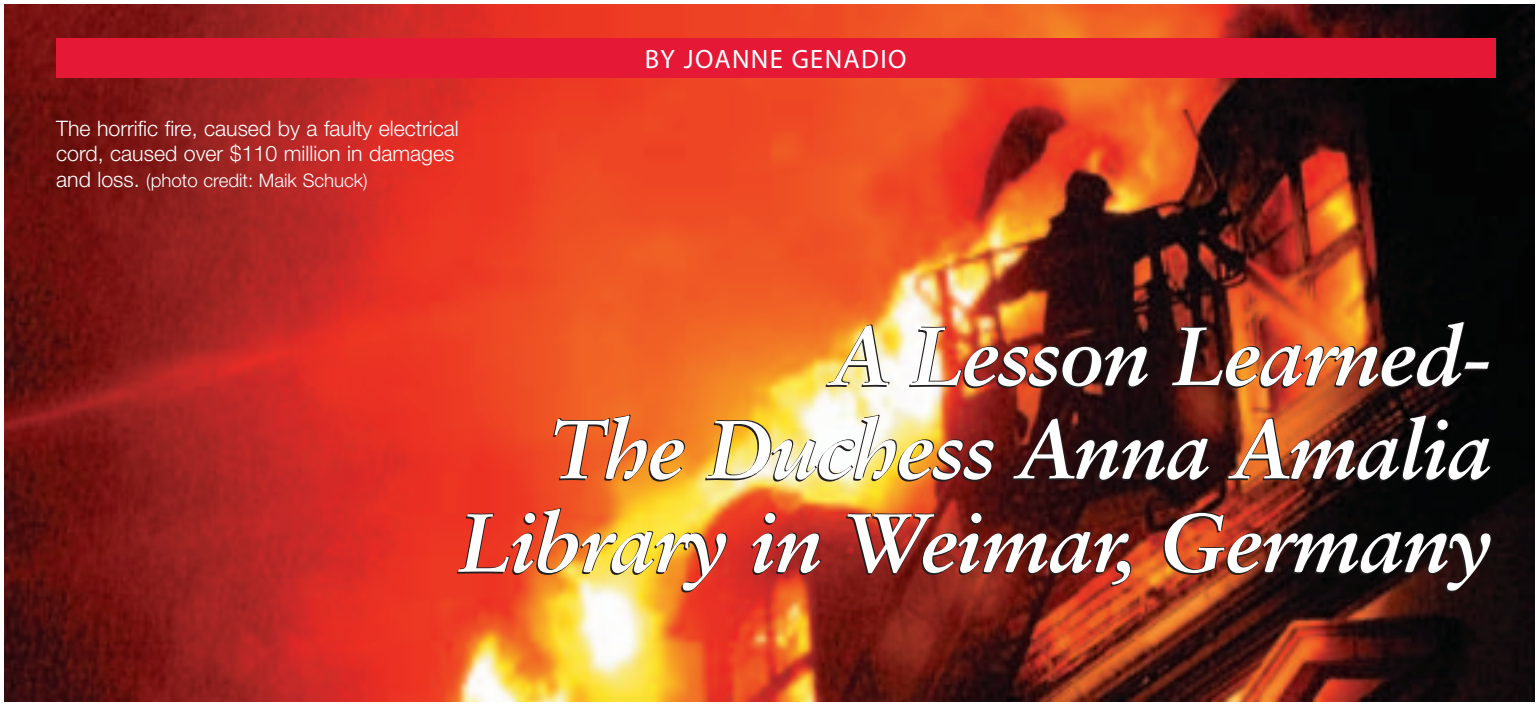
BY JOANNE GENADIO



The horrific fire, caused by a faulty electrical cord, caused over $110 million in damages and loss. (photo credit: Maik Schuck)

A Lesson Learned- The Duchess Anna Amalia Library in Weimar, Germany

It was as quiet as a library can be on the evening of September 2nd, 2004 in the town of Weimar, Germany, about 150 miles southwest of Berlin, when a defective electrical cord caused a devastating fire and an unspeakable loss of historical books and works of art. This irrevocable loss deeply affected not only the people of Germany, but all of mankind.

The Duchess Anna Amalia Library in Weimar, Germany was named for Anna Amalia, Duchess of Saxe-Weimar-Eisenach, who arranged in 1766 for her court's book collection to be moved into what is now the library that bears her name. Prior to the fire, it was considered one of the most beautiful Rococo-style buildings in central Europe. However, as hindsight does tell, the library had one fatal flaw, it was unsprinklered.

The main building, where the fire occurred, is the Green Castle, which was Anna's residence, built between 1562 and 1565. She had the building converted into a library in 1761. The Duchess, seeking a tutor for her son Duke Carl August, hired Christoph Martin Wieland, an important poet and noted translator of William Shakespeare. Wieland's Shakespeare volumes formed the core of the collection. From an architectural standpoint, the library, a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage site, is known throughout the world for its oval Rococo hall featuring a portrait of Grand Duke Carl August.

One of the library's most famous patrons was Johann Wolfgang von Goethe, who worked there from 1797 to 1832. Goethe was a poet, novelist, playwright, courtier, and natural philosopher, known as one of the greatest figures in Western literature. His most famous work is the poetic drama, Faust. The library housed the world's largest Faust collection. The private library of famed 19th century German Philosopher, Frederick Nietzsche, was stored in the library's archives. The Duchess' significant 13,000-volume music collection was also available in the library.

During World War II, most of the collection was housed elsewhere to preserve them from Allied bombing. Some sixty years later, books and priceless works of art that survived a world war were destroyed by a faulty electrical cord.

Extensive Damage

The fire came as a particular tragedy, in part because the collection was scheduled to be moved to another site in late October of 2004, a little more than a month from when the tragic fire struck. The building was extensively damaged by fire and water and the third floor and attic were completely destroyed. The night of the fire and through the following days, more than nine hundred volunteers evacuated tens of thousands of books and works of art. As the library was burning, workers passed 6,000 books, including a Martin Luther Bible from 1543, hand-to-hand to safety before abandoning their rescue attempts when the ceiling threatened to caved in. Roughly 50,000 irreplaceable books from the 16th to 20th centuries went up in flames. 62,000 books were rescued, of which only 28,000 were intact. Of the damaged books, about 16,000 have been restored and a further 12,500 new books are replacing the unsalvageable ones. The estimated cost of book restoration and reacquisition alone is $95 million (US).

35 oil paintings, mostly portraits from the 16th to 18th century were destroyed. The ceiling, painted by German Painter Johan Henrich Meyer was replaced by a copy. Particularly devastating is the loss of the collection of 18th century musical works donated by the Duchess herself and the collection of the first librarian, Daniel Schurzfleisch, who brought his collection to the library on 35 horse-drawn carts in 1722.

The devastation caused by this fire underscores the importance of taking preventative measures against potential disasters in buildings that house priceless historical archives. The German Association of Technical Fire Prevention is speaking out in support of fire sprinklers as an effective preventative safety measure. In the past, opposition to fire sprinklers in libraries pointed to the problem of books being damaged by the

CONTINUED ON PAGE 40

Joanne Genadio
NFSA's Publications Coordinator

photo credit: Maik Schuck

View of the Rococo-styled main hall, before and after the devastating fire.

photo credit: Maik Schuck

One of thousands of books destroyed in the fire.

CONTINUED FROM PAGE 39

water from the sprinklers. Any argument of extensive water damage by sprinkler activation was effectively doused after the severe damage that was caused by the water from fire hoses became evident. The library was inundated with more water than it receives in two full year's of precipitation. The Association stressed that fire sprinkler systems can battle fires in historic buildings with little or no damage to their contents. They further noted that fire sprinkler systems are all too often absent from buildings housing culturally valuable collections. Unfortunately, it is only after a disaster such as this, that people begin to take note.

The three-year building restoration cost $18 million (US). The library now gleams once again in a slightly bluish white, the original color it was given under the reign of Duchess Anna Amalia. The fire sprinkler system that will prevent a disaster like this from ever happening again is hidden from sight, in no way detracting from the beauty and elegance of the structure that it now protects.

On October 24, 2007, what would have been Duchess Anna Amalia's 268th birthday, Germany's President Horst Kohler presided over the reopening ceremony of the once-again grand library. "This is a day of joy for Germany as a cultural nation," President Kohler said at the ceremony. Let no one forget that it is also a wake-up call for authorities worldwide, who have in their power the means to prevent another tragedy such as this one. The lesson learned?-An ounce of prevention is worth a pound of cure. The cost of sprinklering historic buildings is literally a drop in the bucket when compared to the devastating reality of losing invaluable pieces of world heritage that can never be replaced.

CMS and Fire Sprinklers in Long Term Care Facilities

In October 2006, CMS (Centers for Medicare & Medicaid Services) published a proposed rule for the installation of sprinkler systems in all existing long term facilities . In short, retrofit. CMS is the HHS (Dept. of Health and Human Services) agency responsible for administering the Medicare, Medicaid, SCHIP (State Children's Health Insurance), and several other health-related programs. The investigation that prompted this proposed legislation comes from the 2003 Hartford and Nashville long term care facility fires that claimed 31 lives. These two fires are also the primary reason for the addition of section 19.3.5.1 to the 2006 NFPA 101, The Life Safety Code (LSC). Under this new rule, if passed, the 1999 NFPA 13 and the 1998 NFPA 25 standard would be the installation and maintenance standards.

Sections 1819(d) (2) and 19191 (d)(2) of the Social Security Act require that long term care facilities participating in the Medicare and Medicaid program meet the provisions of the edition of the LSC that is adopted. Currently CMS is under the 2000 edition and has plans to go forth with adopting the 2006. However, by bringing this ruling out from the body of the code as a single issue, it will have a quicker effect for the structures and the residents than waiting for the adoption of the entire code which could take at least 18 months. Already, states such as Virginia, Connecticut, and Tennessee have required these occupancies to have sprinklers in new and existing long term facilities.

CMS is also proposing along with this rule, a sunset provision for smoke alarms. The current smoke alarm retrofit would coordinate with the phase in period for sprinklers. We should mention that while the general misconception of this proposed rule is to require a phase in period of 5, 7, or 10 years. These time lines are only suggestions from the CMS staff, and could be modified by the public comment. However, it is worth mentioning that most states or entities adopting the 2006 LSC is following similar phase in period. Michigan's ad-hoc committee to the State Fire Safety Board has elected to go with the 10 year phase in, with the discussion for this time period mostly revolved around obtaining funding. Since NFPA 101 Section 19.3.4.5.1 already exempts fully sprinkled buildings from the current CMS smoke alarm requirement, it would be another cost burden to these facilities. CMS estimates show a net savings of $1,800 annually for installing sprinklers and removing the smoke alarm provision.

What will this mean to the sprinkler industry in the terms of projecting our ability to install? As referenced in the following table, CMS estimates the cost to retrofit existing facilities unsprinkled and partially sprinkled, in the suggested phase in terms. If the 10 year phase is chosen, then costs can be in the range of approximately $48 to $70 million. The 7 year phase in runs around $74 to $108 million, while the 5 year will be $108 to $158 million dollars. The burden for facilities in conjunction to their annual revenue is also in the table below. It is interesting to note to finance a retrofit is a very small percentage ranging from .4% to 1.2%.

Projected Installation Costs (in millions)

10 Year	7 Year	5 Year
$47.8–$69.9	$73.5–$107.5	$107.7–$157.6

Average Facilities Actual Revenue Costs (est.)

10 Year	7 Year	5 Year
0.4%–0.6%	0.6%–0.9 %	0.8%–1.2%

CMS estimates that there are 1,947 partially sprinkled (15% of existing stock) and 515 (4% of existing stock) unsprinkled facilities left in the U.S. Their figures to finish sprinkling a partially sprinkled facility will range from $75,338 to $416,250 per facility, based on the 10 year phase in. Of course these figures fluctuate with size of the structure, the type of structure, and other installation costs.

Retrofitting an unsprinkled building, expenses go up, as expected. CMS figures for existing unsprinkled average from $100,450 to $615,000 per facility. The price per square feet, according to the CMS study

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Russell P. Fleming, P.E.
Russ is NFSA's Executive Vice President

CONTINUED FROM PAGE 41

averages from $4.10 to $6.15.

Annual costs to maintain the newly retrofitted are also in the CMS study. As before mentioned, this new law will be using the 1999 edition of NFPA 13 and the 1998 NFPA 25. In a typical facility there will be 4 quarterly inspections, the cost being $150 per inspection using four hours of labor. A trip test would take 6 hours at a cost of $250, and annual general maintenance costs they average to be $150. A total annual cost to perform inspections, testing and maintenance for a facility should be around $1000.

CMS has already closed the public comment session and the next step would be to reshape the draft language accordingly. Currently, CMS estimates to have this rule effective in 2008, but could be as late as 2009. NFSA's Regional Operations is consistently working their states to upgrade to current published standards and codes. If you are in a state that needs updating, please contact your Regional Manager or myself for more information and state agency contacts.

State-by-State NFPA 101-The Life Safety Code Adoptions

STATE	101 EDITION	STATE	101 EDITION
Alabama	2003	Montana	NA
Alaska	NA	Nebraska	2003
Arizona	NA	Nevada	NA
Arkansas	1997	New Hampshire	2003 (2006 in progress)
California	NA	New Jersey	NA
Colorado	2003 (State Agencies)	New Mexico	1997
Connecticut	2003	New York	1997 (Health Care)
Delaware	2006	North Carolina	1997
Florida	2003	North Dakota	1997
Georgia	2000	Ohio	NA
Hawaii	2000 ('06 1/101 pending)	Oklahoma	2003
Idaho	NA	Oregon	NA
Illinois	2000	Pennsylvania	NA
Indiana	NA	Rhode Island	2003
Iowa	Various	South Carolina	2003
Kansas	2003	South Dakota	1997 (Health Care)
Kentucky	2006	Tennessee	2003
Louisiana	2003	Texas	2003 (State Facilities)
Maine	2003 (2006 in progress)	Utah	2000
Maryland	2006	Vermont	2003 (2006 in progress)
Massachusetts	2000 (Health Care)	Virginia	NA
Michigan	1997/2000 (2006 in progress)	Washington	2000 (Health Care)
Minnesota	1997 (Limited)	West Virginia	2003
Mississippi	1997 (Health Care)	Wisconsin	2006 (Limited)
Missouri	2000 (State Facilities)	Wyoming	2000

[1] Federal Register / Vol. 71, No. 208 / Friday, October 27, 2006 / Proposed Rules [2] Collected information from the NFPA

Right Up Front, I Apologize for Preaching

BY BARRY WATERMAN

Those of you who know me are aware that I'm a pretty conservative guy. I have tattoos of Ronald Reagan on one arm and George Patton on the other. Just kidding. I had to seek therapy over just the thought that John Kerry might be president. Not kidding. Lucky for me we dodged that bullet.

My favorite sprinkler systems are the ones my grandfather installed in the forties. They're still out there ready to work, although the heads (well, most of them) have probably been replaced. But I also love the systems we installed during my career in the last four decades. The standards we use have changed, and they are changing now more dramatically than ever. Thanks to the dominance of conservative thinking, the changes have not resulted in any lowering of the performance record we have always enjoyed.

Thanks to this approach we can make the following sweeping statement: "Wherever sprinklers are installed, they work." Name ten occupancies. Heck, name a hundred. Try to think of something that anybody builds that's attached to the ground that we can't protect with a sprinkler system.

As contractors we have done our part by adhering to these standards. If we were cutting corners – making liberal interpretations of the standards, you might say – we wouldn't have the performance record our product enjoys. Oh, Fire Service officials, plan reviewers, consultants, insurance inspectors and the like, review and re-review our plans and our installations to assure compliance. We are a highly regulated discipline, and the regulators have played a significant role.

But the systems work, and everybody involved in the process should be proud of that.

There is a lot of troubling rumbling on the economic horizon, and if we are looking at another tough period, we need to keep our track record clearly in our sights. My company survived extended slow periods in the seventies, eighties, nineties and whatever you call the current decade. Doing what you need to do to survive is critical, and I shake my head when I think back on how many other companies didn't make it.

One thing we can't do is compromise the product in order to survive. To a very high degree we have resisted compromising in the past. Oh, we all like to tell tales of so-and-so did this or that, but as an industry we have maintained our performance level in good times and bad.

As a higher and higher percentage of all construction is built with fire sprinkler systems, it is as critical as ever – perhaps more critical than ever – that we maintain our excellent performance record.

Another thing we can't do is give our product away or perform at fire sale (get it?) prices.

I hear a lot of you saying, "Wait a minute. Hold the line on pricing, maintain standards and do what is necessary to survive? That's not such an easy thing to do."

Well, doing the RIGHT thing is frequently doing the hard thing, in my somewhat old-school opinion. The easy thing is for liberals.

Just as with a number of the issues on the current national landscape, what is necessary is also hard. It troubles me to see so many of my fellow citizens back away from challenges because they are difficult. Easy is, well, easy. I believe that as an industry, we have always done a little better than that.

Maybe those rumblings will turn out to be the noise of fleets of heavy equipment coming out to dig foundations for a new building boom. I, for one, sure hope so. But if not, it's up to all of us to keep the bar high. It's the conservative thing to do.

Barry Waterman
Independent consultant to the Northern Illinois Fire Sprinkler Advisory Board.

Maine Adopts Latest Edition of Several NFPA Fire and Life Safety Codes

The state of Maine has adopted the latest edition of several National Fire Protection Association (NFPA) fire and life safety codes. They are: NFPA 1, Uniform Fire Code™ (UFC); NFPA 13, Standard for the Installation of Sprinkler Systems; NFPA 72, National Fire Alarm Code®; and NFPA 101®, Life Safety Code®.

NFPA codes are widely used across the United States. The latest adoptions set fire and life safety requirements for new and existing buildings in the state of Maine.

Maine officials participated in a training program developed by the National Fire Protection Association that is offered to states that have adopted key NFPA codes and standards. Training provided by NFPA technical experts covers code requirements and the numerous ways the codes may be implemented and enforced.

NFPA 1, Uniform Fire Code™, recognized worldwide and adopted statewide in 20 states, provides requirements necessary to establish a reasonable level of fire safety and property protection from hazards created by fire and explosion. Its primary purposes are to address basic fire prevention requirements and to reference or extract the fire prevention and protection aspects of many other NFPA codes and standards.

NFPA 101®, Life Safety Code®, used in every U.S. state and adopted statewide in 39 states, sets minimum building design, construction, operation, and maintenance requirements necessary to protect building occupants from dangers caused by fire, smoke, and toxic fumes. The Life Safety Code also provides prompt escape requirements for new and existing buildings.

NFPA 72®, National Fire Alarm Code® is used in every state and adopted statewide in 44 states. It sets requirements for the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems, fire warning equipment and emergency warning equipment, and their components.

NFPA 13, Standard for the Installation of Sprinkler Systems is adopted statewide in 48 states and provides minimum requirements for the design and installation of automatic sprinkler systems and exposure protection sprinkler systems

NFPA Urban Fire Forum

Twenty fire chiefs from around the world participated in the National Fire Protection Association (NFPA) Urban Fire Forum in Quincy, MA, October 11-13, 2007. Also in attendance was Gregory Cade, administrator of the United States Fire Administration who was formerly the chief of the Virginia Beach Fire Department.

The forum focused on a wide range of topics including environmental issues, mutual aide and resource typing, incident management, fire fighter safety, community planning and design, diversity, outreach and recruitment, fire-based EMS, and much more. The forum is sponsored each year by the NFPA.

The facilitators for this year's forum were Alan Brunacini, retired Phoenix, AZ chief and Warren McDaniels, retired New Orleans, LA chief and NFPA Chair of the Board of Directors.

The core group of the Urban Fire Forum is the Metro Chiefs Executive Board. In addition, 15 additional chiefs are invited each year on a rotating basis.

The Metropolitan Fire Chiefs (Metro) Section brings together fire chiefs from large metropolitan fire departments to share information and focus on major issues effecting policy changes in the U.S. and abroad. The Metro is a Section of both the NFPA and the IAFC and its members are the fire chiefs of jurisdictions with minimum staffing of 400 fully paid career firefighters.

NFSA ADDRESS CHANGE

Due to changes at the local post office, NFSA is discontinuing the use of the P.O. boxes for NFSA and IP mailings (Box 1000 and Box 448). Mail will be delivered directly to NFSA at 40 Jon Barrett Road. As such, please discontinue the use of the P.O. boxes in all correspondence, payments, billings et al. sent to NFSA headquarters in New York. The post office will forward from the P.O. boxes for a while, but at some point in 2007 will stop honoring the forwarding instructions.

Cary Nicol Appointed as New VP of Sales for Viking

Viking SupplyNet announces the promotion of **Cary Nicol** to the position of Vice President of Sales. Effective immediately, Nicol will direct the company's total sales efforts for the U.S. and Latin America. He will also retain responsibilities for managing Viking SupplyNet's relationships with its business partners.

Nicol brings to the position seventeen years of progressive sales experience with Viking SupplyNet. Most recently, he served as Regional Sales Manager for the Southeast U.S. His previous experience also includes three years as Regional Sales Manager for the Midwest and ten years as a Territory Sales Manager responsible the Michigan and Northeast Ohio markets.

In addition to a proven track record in sales management and market development, Nicol has in depth knowledge of the fire sprinkler industry and is active in several industry organizations, including the NFSA's Industry Promotion Committee, the NFSA's Northern Illinois Chapter (Vice Chairman), and the Illinois Burn Prevention Association (Co-Chairman). He received his Bachelors degree in Marketing from Walsh Business School in Troy, Michigan. Nicol resides outside Chicago and will continue to work from this location.

Terrence Field Joins Reliable's Sales Team

Terrence G. Field is the new Sales Representative covering Western Pennsylvania & NY State for The Reliable Automatic Sprinkler, Co. Inc. He received a B.A. in Communications from Stockton College located in Pomona, NJ. Terrence joins his brother, Thomas P. Field, as another second generation salesman for Reliable.

Before joining Reliable, Terrence was the sole employee and part owner of a start up Medical Device Distributor located in the Philadelphia market. Prior to that, he had a brief stint working as an I.T. Recruiter.

New Sales Representative Joins Reliable Automatic Sprinkler Sales Team

The Reliable Automatic Sprinkler Co. welcomes Ryan McIntyre as their new sales representative for the Southwestern United States, covering the Metro Dallas / Fort Worth as well as Arkansas and Louisiana.

Ryan joined the Reliable team in July of 2007 as a Reliable sales representative. His responsibilities will include development and technical support for Reliable's product lines with fire sprinkler contractors within his region.

FUTURE NFSA ANNUAL SEMINARS:

NFSA Annual Seminar
May 14-17, 2008
Atlantis Paradise Island, Bahamas

NFSA Annual Seminar & Exhibition
April 29 - May 2, 2009
Omni ChampionsGate, Orlando, FL

NFSA Board of Directors Unveils Common Voices Advocates' Coalition

The National Fire Sprinkler Association (NFSA) Board of Directors announced at its meeting in New York City in October, that it has launched its latest initiative, an advocates' organization called Common Voices Coalition. The NFSA Board began building the Coalition in February of 2007 by bringing together fire advocates who have been affected by fire, but have turned tragic events into advocacy by supporting fire sprinklers.

The Coalition is well on its way to making a difference, with a plan that includes education, advocacy, and promotion of fire sprinklers. The six individuals who are serving as the Advisory Board for the Coalition include:

- Bonnie Woodruff, mother of Ben Woodruff
- Gail Minger, mother of Michael Minger
- Vina Drennan, widow of John Drennan, FDNY Fire Captain
- Amy Acton, Burn Survivor and Director of The Phoenix Society
- Justina Page, mother of Amos Page
- Donna Henson, mother of Dominic Passentino

The four mothers all have lost children to fire. The efforts of the Advisory Board include a plan to provide testimony and a speakers' bureau for others that are pursuing fire sprinkler legislation across the country. They have identified as priorities work on the Fire Sprinkler Incentive Act, a bill in both the House and Senate in Washington, D.C. and participation with the IRC Residential Fire Sprinkler Coalition, a group focused on the inclusion of fire sprinklers in residential code requirements.

The Common Voices Coalition will also target specific national television programs in an effort for their grass-roots message to be heard. America has a fire problem, and fire sprinklers are part of the solution. The Advocates put a face on the statistics and bring the problem to life.

For more information about the Coalition, including a video that documents the formation of the group, visit www.fireadvocates.org and join the proactive work of the advocates. Vickie Pritchett, Associate Director of Public Fire Protection for the NFSA is serving as the facilitator of the Coalition and may be reached at 615.533.0305 or Pritchett@nfsa.org.

NFSA Establishes "Industry Advancement Fund"

The National Fire Sprinkler Association (NFSA) is pleased to announce the establishment of the Industry Advancement Fund (IAF). Formed to provide industry contractors, manufacturers and suppliers with a means to make individual contributions into a pool of funds to be used toward the advancement of the fire sprinkler concept, the IAF will be dispersed to promote fire sprinkler legislation and support those organizations whose goals for creating fire safe environments is similar to those of NFSA. Contributions into the fund are strictly voluntary and are tax deductible.

Specifically, the fund will be used to provide financial support to the following organizations, programs and initiatives:

- Legislative efforts to pass the Fire Sprinkler Incentive Act
- Design Advantage Program (Architect Training)
- Best Practices Program
- Center for Campus Fire Safety
- Campus Fire Watch
- Fire Team USA (Fire Team Tennessee)
- Home Safety Council
- Home Fire Sprinkler Coalition
- Adoption of fire sprinklers in the International Residential Code (IRC)
- Advertising and public relations to promote the fire sprinkler concept

Every fire sprinkler industry concern is welcome and encouraged to make a contribution to the fund. While the fire sprinkler concept has gained significant recognition for its property protection and life safety benefits, additional financial support is needed to aggressively pursue its continued development and promotion. As both, NFSA President John Viniello and NFSA Chairman of the Board of Directors Wayne Gey – whose idea it was to establish the IAF – have said on numerous occasions, "This is a great industry in which we work. The product we produce, sell and install is the key to eliminating fire as a cause of death and injury. As such, we have a public responsibility to carry the fire sprinkler message from border to border and coast to coast. To that end, this fund will help us do that."

Every contributor to the fund will be publicly recognized in regularly issued reports and bulletins unless they would prefer to remain anonymous. As a bonus, contributors to the IAF who also reserve booth space for the NFSA exhibition will receive additional credit in the booth selection process.

New NFSA Reference Book Allowed in NICET Exams

NICET had announced a change in its testing policy to allow only materials from the "Selected General Reference" and "Relevant Standard" sections of the NICET program detail manual be brought into the examinations. Those lists include very little other than the NFPA standards, NFPA Fire Protection Handbook and the NFSA Fire Sprinkler Plan Review Guide.

NFSA is very pleased to announce that NICET has granted approval of NFSA's new Layout, Detail and Calculation of Fire Sprinkler Systems reference book to be used in its examinations. NICET has said it will try to get word of the approval out to all its proctors, but there is a possibility not all proctors will get the new information and may try to prohibit the use of the NFSA reference book. Students experiencing that circumstance should advise the proctor to call NICET who has set up a special telephone number to answer such questions.

NFSA's Layout, Detail and Calculation of Fire Sprinkler Systems reference book can be ordered by visiting the NFSA website at .nfsa.org.

Bob Treiber, NFSA Director of Training and Education did a week of training for the facility staff and airport fire department at the new Princess Juliana International Airport (PJIA) in St. Maarten. The new airport terminal contains 4306 sprinklers and is totally protected. The facility has two 1000 gpm fire pumps and a ground level tank that provides the total fire protection. The four-day training session took place from September 3 through September 6, 2007.

The newly built airport is not quite a year old. Originally, the PJIA started as a small military base that was built in 1942, and was converted into a civilian airport in 1943, the first in that particular part of the Caribbean. It has played an important role in the socio-economic transition of St. Maarten, from an agriculturally based economy into one of the major tourist destinations in the Caribbean. Today, PJIA is the second busiest airport in the Northeastern Caribbean, in terms of aircraft movements, behind San Juan, Puerto Rico. PJIA is the single most important strategic asset of St. Maarten.

REGIONAL ROUNDUP

NORTHEAST

Code Violations at Somersworth, NH Elementary School

City officials received a list of code violations at Hilltop School in Somersworth, New Hampshire on October 22, 2007, that prompted the sudden closure of its top two floors in August.

City Manager Bob Belmore sent a letter September 27 on behalf of the City Council's Finance Committee asking Fire Marshal Bill Degnan for clarification regarding the violations.

In Degnan's letter he stated that the school building has "numerous, serious deficiencies and should be repaired or replaced," which prompted him to order closed the top two floors of the building just before school was scheduled to begin as he deemed it unsafe for students.

In the letter explaining the code violations, Degnan references a 1999 study done by Team Design, Inc. that identified the major issues he had found within the infrastructure of the building. The issues included ADA (Americans with Disabilities Act), heating systems, lack of automatic fire sprinklers, doors from classrooms opening into the stairs and non-fire rated stair enclosures. Violations with exits, fire alarms and the lack of an automatic fire sprinkler system were issues for which the school could not receive waivers.

When the closure occurred, some city councilors questioned the timing of the decision, as students were delayed returning to school by nearly three weeks while the portable classrooms were installed. Degnan stated that if he did not believe that the children were in danger if a fire was to occur, he would not have restricted the use of the building's upper floors.

Dominick Kasmauskas is the NFSA Regional Manager for the Northeast Region. He can be reached at Kasmauskas@nfsa.org or1436 Altamont Ave. Suite 147 Rotterdam, New York 12303 Phone (914) 414-3337 Fax (518) 836-0210.

MID-ATLANTIC

Fire Officials Push For Mandatory Sprinkler Systems in Older High-Rises

State fire commissioners, fire chiefs and

firefighters attended a sprinkler burn demonstration in Sayreville, New Jersey on September 19, 2007 to show their support for a proposal to require sprinkler systems in older high-rises.

The amendment would affect some 400 buildings six stories or taller throughout the state that have either no sprinklers or partial systems, said Arthur Londensky, a member of the New Jersey State Fire Safety Commission.

A law passed in 2000 to retrofit on- and off-campus student housing in the wake of the deadly Seton Hall University fire was the first in the nation. Since then, many states have followed suit. Regulations putting sprinklers in nursing homes and some nightclubs in New Jersey soon followed.

The latest proposed measure is another incremental approach to requiring sprinklers in more residential buildings. Many, including single and two-family homes in New Jersey, still are not required to have the systems.

Raymond W. Lonabaugh is the NFSA Regional Manager for the Mid Atlantic Region. He can be reached at: Lonabugh@nfsa,org or P.O. Box 126, Ridley Park, Pennsylvania, 19078. Phone: (610) 521-4768

SOUTHEAST

Piperton Tennessee Douses Sprinkler Opposition

At an October, 2007 Town Board meeting in Piperton, Tennessee the board, as predicted, unanimously passed a law that requires automatic sprinklers to be installed in all new homes. The law goes a step beyond those in towns like Germantown and Collierville that require automatic sprinklers in houses larger than a certain square footage. Piperton Ordinance No. 114-07, or the "sprinklers for everything" bill as it's been pegged, is the strictest fire-sprinkler bill in the Mid-South.

Executive director Don Glays of the Memphis Area Home Builders Association attended the meeting on behalf of local builders to "register our opposition." During a short presentation, he called sprinklers a barrier to affordable housing. Also "strongly opposing" the measure was developer William Adair, whose 3,000-acre Piperton Hills subdivision will be the largest development in Piperton.

But the deck was stacked against opponents with Piperton Fire Chief Reed Bullock, the fire marshals of Germantown and Collierville and leaders in the sprinkler industry jumping up to combat "myths."

The ordinance will take effect Oct. 17. Violators will be charged with a civil offense and fined $50.

One notable observer of the debate was Fayette County Mayor Skip Taylor. He said that the idea for an automatic sprinkler ordinance was presented to the county Planning Commission last year, but they got "bogged down" with other issues. But Taylor is ready to bring the idea before the board again now that he has researched the issue and Piperton has served as the trailblazers.

Wayne Waggoner is the NFSA Regional Manager for the Southeast Region. He can be reached at: Waggoner@nfsa.org or 7631 Saint Baron Way, Powell, Tennessee 37849, Phone (863) 947-3393, Fax (863) 947-5188.

FLORIDA

Chi Omega Sorority Announces Sprinkler Retrofit

Thanks in large part to the hard work of Buddy Dewar, Director of Regional Operations for the NFSA, on behalf of the Florida Fire Sprinkler Association the National President of Chi Omega Sorority announced at their annual meeting a fire sprinkler retrofit mandate for all of their chapter houses. Buddy spoke at the program, along with their insurance provider, M-J Insurance discussing the fire sprinkler retrofit. Buddy's portion of the speech included information about "how to retrofit" and M-J Insurance's segment discussed insurance savings.

Chi Omega joined Kappa Alpha Theta, Pi Beta Phi, and Delta Gamma on the list of the national sororities that have mandated sprinkler retrofit.

M-J Insurance reports that in 2002 only 18% of all sorority houses they insured were sprinklered. Today, houses that are

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sprinklered are up 20% to about 38%. The goal is to have 100% of the nation's sororities sprinklered in 7 years. M-J insures approximately 80% of the sorority houses in the nation.

Buddy has been a staunch proponent of fire sprinkler retrofit in the national sorority and fraternity systems and has spoken many times to groups across the country to promote the issue. Congratulations to Chi Omega for taking this important step and to Buddy for helping them reach their goal of 100% fire sprinkler coverage.

David Bowman is the NFSA Regional Manager for the Florida Region. He can be reached at Bowman@nfsa.org or 6572 SE 173rd, Court Ocklawaha, Florida 32179 Phone (845) 519-7648 Fax: (661)455-3968

GREAT LAKES

Indian Hills, Kentucky City Council Approves Sprinkler Ordinance

In an effort to increase fire safety and protect its citizens, the Indian Hills City Council approved an ordinance requiring the installation of residential fire sprinkler systems in all newly constructed homes. While the passage of residential fire sprinkler ordinances is a growing trend nationwide, Indian Hills is the first municipality in Kentucky to pass such an ordinance.

According to Tom Eifler, Sr., Indian Hills Mayor and Chairman of the St. Matthew's Fire Department, the city council passed the ordinance to protect its residents and firefighters.

Eifler stated that even though Indian Hills does not have a lot of new construction, there are a number of older structures that are being torn down and replaced with new structures that are much larger. Eifler stressed that the ordinance sends a message that the council cares about the lives of Indian Hills residents and firefighters.

Jeff Hugo is the NFSA Regional Manager for the Great Lakes Region. He can be reached at Hugo@nfsa.org or 1088 West Borton Road, Essexville, Michigan 78732 Phone (845) 519-5963 Fax (989) 891-0494

ILLINOIS

Fire Officials Disappointed as Sprinkler Ordinance is Reversed

Huntley Village, Illinois, a fast-growing community near Chicago, has voted to reverse the two year old ordinance requiring residential fire sprinklers in new homes. Opposition to the ordinance citied the cost of installing and maintaining the systems as preventing homes from being competitively priced. Since the ordinance was passed, more than 1,300 single-family homes are protected with fire sprinklers.

According to the Northern Illinois Fire Sprinkler Advisory Board (NIFSAB) the village's board members who voted to reverse the ordinance did not provide any facts supporting the removal of the ordinance.

Tom Lia, executive director of NIFSAB, said there are currently 50 Chicago area municipalities/fire districts that require fire sprinklers. Six have passed their ordinances in the last year.

Lia expressed disappointment in the decision. He stated that Huntley Fire Chief Jim Saletta worked hard to pass the ordinance two years ago and worked diligently to defend it during the board meeting. Lia said it was frustrating when elected officials chose not to support their own safety leaders.

Bob Kleinheinz is the NFSA Regional Manager for Illinois. He can be reached at Kleinheinz@nfsa.org or 509 Dawes Street, Libertyville, Illinois 60048. Phone: (914) 671-1975.

NORTH CENTRAL

Sprinkler Saves Oak Creek, Wisconsin Apartment Complex

Residents in a 40-unit housing complex in Oak Creek, Wisconsin were safely evacuated on October 14, 2007, when a fire started in a lower level storage area.

About 22 Oak Creek firefighters reported just before 7:00 p.m. to the building at 8471 S. Chicago Road, which is home to many seniors, according to Oak Creek Fire Chief, Brian Satula.

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Satula said firefighters discovered the storage area filled with smoke. However, the fire was kept in check with a sprinkler system.

Firefighters extinguished the remaining flames and aired out the building, where residents were allowed to return after about an hour and a half.

No injuries were reported. The cause of the fire was being investigated.

Dan Gengler is the NFSA Regional Manager for the North Central Region, He can be reached at Gengler@nfsa.org or PO Box 280, Williams Bay, Wisconsin 53191 Phone (262) 245-5255 Fax (262) 245-5258

SOUTH CENTRAL

New Sprinkler Law a Good Possibility in Lake Jackson, Texas

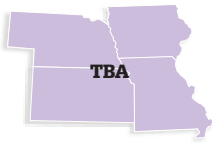
A new law in Lake Jackson, Texas, if passed, would require sprinkler systems installed in all new single family homes starting January of 2009. It's one of the few Texas communities to have such a law on the books.

Fire Marshal Randy Crim is optimistic about the law passing. He has been performing numerous demonstrations, showing the difference sprinklers make in preventing a house fire from becoming huge. The Fire Marshal is so serious about sprinklers and sprinkler education in Lake Jackson that he is taking this sprinkler show on the road. FEMA helped pay for the city's sprinkler demonstration trailer.

When some homebuilders question if home buyers will want to pay the extra $1.50 per square foot for sprinkler systems, Fire Chief Mike Harper was quick to point out that you can't put a money value on a saving lives. Mayor of Lake Jackson, Bob Sipple, who went to the city's last fatal fire in February and saw the victim couldn't agree more. The sight was one he will never forget and it was enough to convince him that the new sprinkler law would be a good thing.

Steven Randall is the NFSA Regional Manager for the South Central Region. He can be reached at: Randall@nfsa.org or 7165 Lazy Meadow Lane, Frisco, Texas 75034 Phone (972) 668-4022 Fax (972) 668-4077

CENTRAL



Minnesota Adopts Fire Sprinkler Code

By a 9-1 vote, the Minnesota State Legislature's Joint Committee for Review of Administrative Rules (JCRAR) approved the adoption of the updated International Building Code (IBC) submitted by the Wisconsin Department of Commerce.

Minnesota Deputy Secretary, Aaron Oliver, stated that adopting the updated IBC, including the fire sprinkler provisions, will ensure that Wisconsin's building codes reflect best practices, the use of new technologies, and most of all, safety in built environments for its citizens.

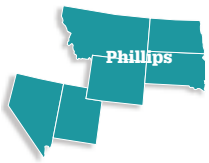
JCRAR adopted provisions that require automatic fire sprinklers to be installed in multifamily dwellings of more than eight units approved after March 1, 2008. New multifamily dwellings of three or more units approved after Jan. 1, 2011, will require automatic fire sprinklers in conformance with current provisions of the IBC.

The new rules specify fire sprinkler coverage for three- and four-unit dwellings served by private wells. Such buildings can use a fire sprinkler system conforming to private well capacity while protecting lives and property from fire.

The updated IBC enjoys strong support from the fire service, fire chiefs and firefighters. It also has gained the approval of Wisconsin's code advisory councils.

The Regional Manager for the Central Region is TBA.

MOUNTAIN



Tahoe Douglas Fire Protection Enacts Fire Sprinkler Ordinance in Nevada

The Tahoe Douglas Fire Protection District has enacted the following fire sprinkler ordinance for buildings and structures within their jurisdiction. The Tahoe Douglas Fire Protection is under the command of Chief Guy LeFever, Assistant Chief Rick Nicholson and Assistant Chief Van Ogami.

The Ordinance read as follows:

Fire Sprinkler Ordinance

904.2.10.1. All new buildings/structures within the jurisdiction of the Tahoe Douglas Fire Protection District must be provided with an automatic fire sprinkler system as outlined in Chapter 9, Section 903.3 of the adopted edition of the International Fire and Building Codes.

904.2.10.2. All existing buildings/structures within the jurisdiction of the Tahoe Douglas Fire Protection District must be provided with an automatic fire sprinkler system as outlined in Chapter 9, Section 903.3 of the adopted edition of the International Fire and Building Codes, when changing use or when increasing the total floor area. Total building area is defined for the purpose of this section as the total floor area in square feet for all floor levels. Attached accessory uses must be included in the calculations of the total floor area. Accessory use shall include but not limited to porches, covered walkways, garages, and decks.

904.2.10.3. No other exceptions to the requirements of sections 904.2.10.1 and 904.2.10.2 will be permitted except by affirmative majority vote of the board of appeals. To grant an exemption, the board of appeals must either: (i) require the buildings/structures to have an alternative extinguishing system, or (ii) require an acceptable alternative method of providing fire protection which will provide additional safety for occupants, better access for the fire department and other improved fire safety conditions when the board makes the finding that the exemption is based on low risk to life safety and property value. No exemption is allowed by the board unless the building/structure meets the minimum requirements of the current adopted edition of the International and Building Codes.

904.2.10.4. Installation, inspection, maintenance and testing of an automatic fire sprinkler system or any alternative extinguishing system approved pursuant to section 904.2.10.3 must meet the requirements as set forth in the adopted edition of the NFPA standard for the installation of sprinkler systems, NFPA 13, 13D, or 13R, as applicable.

Terry Phillips is the NFSA Regional Manager for the Mountain Region. He can be reached at: Phillips@nfsa.org or Phone (914) 525-4396 Fax (307) 514-0406

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SOUTHWEST

Sprinkler Save at Arizona Medical Center

A fire was ignited in a computer room at Havasu Regional Medical Center in Lake Havasu City, Arizona on Saturday, November 3, 2007.

The hospital's fire sprinkler system contained the fire, which started in a main server, to the computer room. When firefighters arrived, they were able to put the fire out quickly.

There were no injuries and no reports of serious damage.

The Lake Havasu City Fire Department received a report of the fire at about 4:00 p.m. and all crews, including five engines and many off-duty personnel, responded, according to Fire Chief Dennis Mueller. One engine from the Desert Hills Fire Department also responded, he said.

Smoke and water forced the temporary evacuation of the first floor, including the emergency room and the lobby, Mueller said. Critical patients were cared for in a temporary triage area and readmitted to the emergency room after about 40 minutes.

Because of the efficiency of the fire sprinkler system, the fire did not affect patient rooms on the upper floors of the hospital. The greatest disruption was a delay of about an hour in meal service. Four patients were moved to other rooms because of the smell of smoke.

Doyle Sutton is the NFSA Regional Manager for the Southwest Region. He can be reached at: Sutton@nfsa.org or Phone (845) 803-3785, Fax (307) 514-0406

WEST

Fresno County California Plans To Improve Fire Safety

The recent wildfires in southern California are a key factor in a plan to improve fire safety in Fresno County. The county fire department is pushing a proposal to require fire sprinklers in new homes built outside of city limits.

The plan to require fire sprinklers in new construction in the county is similar to a plan proposed by the City of Fresno. That plan was unfortunately shot down by local builders, and the county proposal is expected to face the same opposition.

The Fresno County fire department is pushing to have fire sprinkler systems put in new homes located in unincorporated areas. While city fire crews can respond to a blaze within a few minutes, it can take county crews much longer to reach homes in foothill and mountain areas, where once a house catches fire, the flames can easily spread.

The fire department sited one of the southern California wildfires as an example. The fire originated in a home, and burned through the home and then spread into the grass and ended up taking the entire community.

Sam Husoe is the NFSA Regional Manager for the West Region. He can be reached at: Husoe@nfsa.org or 23642 Valle Road, San Juan Capistrano, California 92675, Phone (949) 661-3631, Fax (949) 661-5768.

PACIFIC NORTHWEST

Sprinkler system helps contain fire at Northwest Nazarene University Dorm

Fire officials credited a sprinkler system from preventing a major fire disaster in a dormitory at Northwest Nazarene University in Boise, Idaho on October 23, 2007.

Firefighters got a call from an automated alarm system at Dooley Hall on the campus at 10:44 a.m. Fire Battalion Chief David May says two sprinkler heads activated and contained the fire to a cooking area in a student lounge in the building's basement.

Deputy Fire Marshal Rob Johnson believes the fire started when the stove top ignited a microwave oven that was left on top of it. The stove was thought to be non-functioning, but that was not the case.

The sprinklers prevented any significant structural damage and contained fire damage to the cabinets and cooking area. Firefighters put out the remaining fire quickly. No one was in the space at the time of the fire and no one was hurt. Students were able to return to the dorm about two hours after the fire.

It was a fire at Dooley Hall in 2001 that prompted NNU officials to retrofit student housing on campus and university owned housing off-campus with fire sprinklers to ensure the safety of students living there.

Don Pamplin is the NFSA Regional Manager for the Pacific Northwest Region. He can be reached at Pamplin@nfsa.org or 1436 Harrison Avenue Blaine, Washington 98230 Phone (380) 332-1948 Fax (380) 422-1752

Clarke Receives Patent for Pressure Limiting Driver

Clarke Fire Protection Products, Inc has received US Patent #US7234922B2: Pump Pressure Limiting Engine Speed Control Device. The Pressure Limiting Driver (PLD) is a UL Listed/FM Approved variable speed device for Clarke diesel engines that prevents sprinkler system over-pressure and eliminates excessive discharge of water from emergency relief valves.

The Clarke PLD provides several advantages over alternative solutions: controls pressure without any device in the main supply line eliminating any potential obstructions to the water supply; saves design time by eliminating the need to review multiple engine/pump combinations; reduces the quantity of pressure control valves on high rise applications by limiting the maximum pressure sent to the sprinkler system; enables the use of pumps with steeper shut off curves which require less horsepower to drive the pump and potentially reduce the engine/pump cost; and eliminates the wasteful discharge of water during weekly pump tests.

The Clarke PLD has proven to be a more cost efficient solution than other pressure control options approved by NFPA 20 (2003). Applications for the PLD include: big box stores, warehouses with ESFR sprinkler systems, large factories, sprinkler systems with a large static suction pressure variance, and high rise buildings where pressure control valves on several floors can be eliminated.

For more information, visit www.clarkefire.com.

11th Annual BurnAid Golf Classic Raises $42,000

The Burn Unit of Regions Hospital in Eagan, Minnesota received a $42,000 check from the 11th Annual BurnAid Golf Classic held September 11, 2007 at the Dellwood Hills Golf Club in Dellwood, Minnesota. 36 sponsors and over 130 golfers participated in raising funds to benefit burn injured children.

In its first ten years, the BurnAid Golf Classic has raised over $500,000 in net proceeds dedicated to the benefit of children at the nationally recognized Burn Center, Regions Hospital. The Burn Center, completed in 1994, is the largest such center in the Midwest. Each year it serves about 1600 people injured through fires, frostbite, chemical burns and other related accidents. It is one of 55 Level I Trauma Centers in the country.

The BurnAid Golf Classic is co-sponsored by the National Fire Sprinkler Association, Minnesota Chapter and the Regions Hospital Foundation in cooperation with the Minnesota State Fire Marshal's Office.

FlexHead Fire Sprinkler Connections Bolster LEED Qualification Efforts

A new brochure, available from FlexHead Industries, Inc., shows that the choice of commercial sprinkler connections can impact a building's qualification for LEED Certification. Copies of the brochure, which covers six LEED-related areas, are available from the company through its web-

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site, www.FlexHead.com.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for design, construction, and operation of high-performance green buildings. FlexHead's flexible connections can help you achieve LEED points for a project in six LEED areas: sustainable sites; water efficiency; energy & atmosphere; materials & resources; and indoor environmental quality. Various aspects of the design, manufacture, and operation of FlexHead connectors all play a part in the certification process.

FlexHead Green solutions include the use of all stainless steel, including recycled content, that eliminates additional finishing to prevent corrosion; friction loss of water flow that reduces overall water-flow requirements and minimizes power requirements for system operation; complete-assembly installation that eliminates the need to cut and thread pipe with its attendant cutting oils and toxic fumes during tenant fit-up; and the reduction of materials necessary to meet the code requirements of, and improved failure protection in, seismically active areas. FlexHead products are the only flexible sprinkler connections qualified for use in Seismic Design Categories C, D, E, and F, and to protect against failure during an event because they allow for independent movement between sub-mains and ceilings.

For further information, including the complete brochure, go to www.FlexHead.com, or call (800) 829-6975.

NIST Study Shows Homeowner's Gain with Installation of Fire Sprinkler System

A new study by the National Institute of Standards and Technology (NIST) found that for new home construction, a multipurpose network sprinkler system that connects to a house's regular water supply and piping makes good economic sense. NIST's Benefit-Cost Analysis of Residential Fire Sprinkler Systems report, released last month, examines data from 2002 to 2005 to value the economic performance of a residential "wet-pipe" fire sprinkler system. The study builds on a prior cost analysis developed by NIST's Building and Fire Research Laboratory and offers a current analysis of the economics of residential fire sprinkler technology.

According to NIST, the cost in 2005 dollars for adding a multipurpose network sprinkler system to a house under construction was approximately $2,075 for a 3,338-square-foot colonial-style house, $1,895 for a 2,257-square-foot townhouse and $829 for a 1,171-square-foot ranch house. However when a house fire occurs, the estimated benefits of a residential fire sprinkler system include a 100 percent reduction in civilian fatalities and a 57 percent reduction in civilian injuries, a 32 percent reduction of both direct property damage and indirect property costs. Houses with sprinklers, in addition to smoke alarms, also received an 8 percent reduction in homeowner insurance premiums, over houses only equipped with smoke alarms.

After subtracting installation costs and weighting the benefits by the odds that a house would catch on fire, NIST economists concluded that, depending on assumptions, the net gain from installing a sprinkler system (in 2005 dollars) would vary between $704 and $4,801 for the colonial-style house, between $884 and $4,981 for the townhouse, and between $1,950 and $6,048 for the ranch-style house, over the 30-year study period. In all cases examined, the researchers found that the data supported the finding that multipurpose network residential fire sprinkler systems are cost-effective.

Globe Fire Sprinkler Announces New Adjustable Concealed Sprinkler

Globe Fire Sprinkler Corporation has announced the availability of a new cULus listed one-inch (1") Adjustable Concealed Sprinkler, "The Inch," for both ordinary and quick response applications. It is the only one made in the sprinkler industry offering a full inch of adjustment for greater ease of installation.

Globe also offers cover plates in two diameters – either 3 5/16" or 2 3/4" – with either chrome or white finish. Other finishes are also available upon special order.

"The Inch" is available in 135°F and 155°F, using a 135°F cover plate, and in 155°F, 175°F, and 200°F, using a 155°F cover plate. The "push on - screw off" design cover plate assembly is easily installed after removal of the protective cap.

For further information, visit globesprinkler.com.

Reliable Announces Extended Coverage for both Light & Ordinary Hazard Occupancies

Reliable is proud to announce new J112 and JL112 Upright, Pendent & Recessed Pendent Sprinklers.

The J112 and JL112 sprinklers are Extended Coverage for both Light and Ordinary Hazards occupancies for coverage areas from 144 ft2 (13.4m2) to 400 ft2 (37.2m2). They are Quick Response sprinklers for Light Hazard (16' x 16' to 20' x 20' sprinkler spacing) and for Ordinary Hazard (12' x 12' and 14' x 14' sprinkler spacing). They can also be utilized as Standard Response sprinklers for Ordinary Hazard as well (16' x 16' to 20' x 20' sprinkler spacing). They have a K Factor of 11.2 and are cULus Listed. They are available with a Link or 3mm Glass Bulb for applications as per NFPA 13. Multiple finishes are available.

For more information, visit www.reliablesprinkler.com

The Reliable Automatic Sprinkler Company of Canada Announces New Toronto Distribution Center

Reliable announces the opening of its first full service distribution center in Canada.

This new facility serving Eastern Canada, including the Provinces of Ontario, Quebec and the Maritimes is located in Mississauga, Ontario. This distribution center opened its doors on October 1, 2007.

This distribution center adds to the eleven centers already in place throughout North American, and is supported by a new state of the art 300,000 sq. ft. Manufacturing and Research & Development Facility.

The contact information for this new Distribution Center is as follows -

For Sales and Technical Support contact:

SCOTT PUGSLEY
Eastern Canada Sales Representative
Direct Phone 905-895-5940
Cell 905-252-9318
E: spugsley@reliablesprinkler.com

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For inside sales and support contact:
Sales 800-790-6443
Local Main 905-795-9940
Fax 800-790-6486
Local Fax 905-795-9440
E: Canada@reliablesprinkler.com

Victaulic Announces Availability of Series 7C7 Compressor Package for FireLock NXTTM Devices

Victaulic has announced the availability of the Series 7C7 Compressor Package as an enhancement to the FireLock NXT device line. The 7C7 Compressor Package is riser-mounted and preset to the FireLock NXT requirements. The 7C7 is now available for all FireLock NXT systems, from 1 ½" "-8".

The Series 7C7 is able to function directly out of the box with a quick, easy installation and provides operational air pressure within 30 minutes of discharge, in compliance with NFPA 13 standards. The FireLock NXT devices offer superior fire protection system productivity and performance to system designers and contractors, facility managers and building owners.

The system includes the UL Listed, FM Approved Victaulic Series 757P Air Maintenance Device. The1/6HP compressor can be used with 400 gallon systems while the 1/3HP compressor is best suited for a 750 gallon system. The Series 7C7 can also be combined with the Vic-Quick riser, which includes preset pressure switches, adding convenience and saving time.

The series of FireLock NXT valves eliminate air-to-water differential, allowing a smaller air compressor to be used. Systems are set at 13 psi of air, regardless of water pressure and trip at 7 psi. FireLock NXT valves also feature a smaller footprint and simplified trim configuration that maximize design flexibility for system designers and expedite installation procedures for contractors. The compact trim and diaphragm design reduces the valve's center-to-back take out up to a full seven inches and is easier to install, service and maintain.

Elkhart Brass Announces Sweepstakes Winner

Elkhart Brass has declared Mark Manning of the Double Oak Volunteer Fire Department in Double Oak, Texas as the September winner of the monthly drawing for the Elkhart Brass "Go Electric" Sweepstakes. On behalf of his department, Mark won an Elkhart Brass Portable Flowmeter (retail value $2,040).

The "Go Electric" Sweepstakes is sponsored by Elkhart Brass to promote the acceptance of water flow knowledge provided by electric equipment such as the Unibody Electric Controller and the Portable Flowmeter.

The "Go Electric" Sweepstakes features a monthly drawing for second prize, a Portable Flowmeter; a Grand Prize drawing will be held in January 2008 for a FDIC class package for two department members. Information on how to enter the sweepstakes is available at www.elkhartbrass.com.

Letters

Following is a synopsis of two letters sent to Dan Gengler and Cecil Bilbo:

Dear Mr. Bilbo and Mr. Gengler

Thank you for your participation in the 1st Annual Fire Protection Symposium on September 18th. Cecil Bilbo's presentation on the 2007 edition of NFPA 13 was outstanding. His segment of the training program met the needs of many life safety professionals. Dan Gengler helped facilitate an outstanding training program that met the needs of many life safety professionals here in Wisconsin. Since the completion of the Fire Protection Symposium, our staff has heard dozens of compliments and words of thanks for providing such a training session. Your enthusiastic approach to partnering with our office and assisting with the delivery of this training program makes me proud of the fire protection engineering industry that specializes in these life safety systems.

Again, I greatly appreciate your positive and professional teamwork in the successful delivery of this training. Thank you for working with our staff. You are an asset to the trade.

Sincerely,
Gregory C. Jones
Division Administrator Wisconsin Department of Commerce
Madison, Wisconsin

To John Viniello:

Dear John,

Thank you for the very nice commemorative plaque honoring Viking for our three decades of membership and participation with the National Fire Sprinkler Association. Rest assured that it will be prominently displayed in our office.

We too are proud of the many accomplishments that NFSA has achieved under your leadership. The NFSA partnership of Contractors and Manufacturers has proven many times over to be "The Way" for the fire sprinkler industry.

Most Sincerely,
Jeff Larson
Viking Automatic Sprinkler Company

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