

## Looking Back over 28 Years

This will be the last issue of TechNotes that I write as the Vice President of Engineering at the National Fire Sprinkler Association. After 27 years and 7 months (rounded up to 28 years for discussion sake) of being employed at the NFSA, I'm moving on to become a Clinical Professor at the University of Maryland. While the thought of being a Professor has me tremendously excited, it is with a great deal of sadness that I leave the NFSA.

I thought that I would take a moment and look back over that time period and point out some significant changes that have occurred in the sprinkler industry since February of 1987 when I started here. Feeling particularly nostalgic, I thought that I would concentrate on those changes where I had a hand in the item being changed and therefore helped leave my mark on the fire sprinkler industry.

As I look back over 28 years, it's difficult to decide which are the most important of the changes that I've been involved with. As a member of 12 different NFPA committees, I was involved in drafting huge chunks of some very important documents like NFPA 101, NFPA 13, NFPA 20, NFPA 13R and NFPA 13D. I chaired the Task Group of the Standards Council that resurrected NFPA 24 after the NFPA membership had voted to eliminate it as an NFPA standard. I fought for (and against) thousands of changes to codes and standard (some more important than others). The following are the six items that came to mind as I was writing this last TechNotes for you.

### **NFPA 25**

When I came into the sprinkler business in 1987, there were very few mandatory rules for inspecting and testing fire sprinkler systems. Yes, there were some mandatory rules in some fire codes that were very broadly written like, "The building owner shall maintain their sprinkler system in operational condition." But mandatory requirements for inspections and tests were pretty scarce. There were a few rules in NFPA 20 for periodic inspections and tests of fire pumps and that was about it. NFPA 13A existed at the time as a Recommended Practice, which was not being followed nationwide.

I'm very proud to say that I started working with the NFPA Committee on Inspection, Testing and Maintenance of Water-Based Fire Suppression Systems in 1990 to write the very first edition of NFPA 25. At first, I thought that the standard would be relatively small and easy to write. I figured that regular requirements to check the control valves and a few small tests (waterflow alarm test and main drain test) and we'd be done. But the longer that the committee worked, the more apparent it became that the document needed to be bigger than just those few simple requirements.

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In November of 1991, the committee unveiled its work for the NFPA membership to vote on at the Fall Meeting in Montreal, Canada. During the first few days of the conference, I circulated around the educational sessions and business meetings answering questions about the new standard and listening to people's discussions. I was surprised at how negative the feelings were about the proposed edition of NFPA 25 and from my perspective, it looked like the NFPA members were not going to approve this new document. Late one afternoon, Bill Testa (an NFSA representative on the committee from Grinnell and the committee chair), Ken Linder (a representative of IRI insurance and the committee secretary), and I sat down for a strategy session. They had heard the same concerns that I had, and it did not look good for NFPA 25. The three of us were able to put in place a plan to:

1. Educate people as to what the document actually said and why it was written the way that it was.
2. Make strategic motions on the floor of the meeting to address some of the concerns that had been raised.
3. Defend the document when motions were made to water down the requirements and make it less effective.

Our strategy worked out, and NFPA 25 was approved at that meeting, although it certainly was not a unanimous vote by the NFPA membership. Twenty-two years later, it's amazing to look back on that week in November of 1991. I'm sure that without me, the NFPA would have eventually gotten a version of NFPA 25 in their set of codes and standards. But how long would it have taken? Would we be as far along in convincing people to use NFPA 25 if the first edition had come out in 1994 or 1995?

### **Fire Pump Training and Education**

I never set out to become the "Fire Pump Guru". I had a basic knowledge of pumps and hydraulics that started with my father's teachings regarding pumps for fire trucks and was enhanced by my professors in college and my experience at both of my jobs at the American Petroleum Institute and the NFSA.

In 1992, with the publication of the first edition of NFPA 25 (see above), Jim Lake and I ran around the country teaching seminars on what this new document required in the way of inspection and testing of all water-based fire protection systems. We originally planned 60 minutes of this class to explain the inspection and testing requirements for fire pumps. What we found was that 60 minutes was never enough. People had hundreds of questions about fire pumps, how the systems were supposed to be designed and installed as well as inspected and tested. We quickly learned that this short period of time was not sufficient to train people on what they were looking for.

In 1993, Jim and I decided that we would develop an eight-hour seminar on fire pumps. We started looking around for a book that we could use as a handout for the class, but there were no books available at the time. We went to the NFPA and suggested that they write a book on the subject, but they declined saying that they did not think there was a market for a book on such a limited topic.

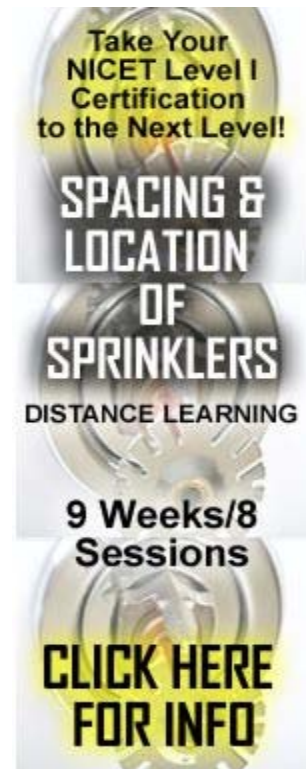
So, since we didn't have a handout to use for the seminar, I sat down and started typing everything that I knew about fire pumps. Back then, it only took about 100 pages for me to cover everything that I knew. The NFSA

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published that book, mostly as a handout for seminar attendees, but also for sale as a separate publication. That little spiral bound book certainly struck a chord with the industry and sold over 4,000 copies in about 18 months.

After that, we went back to the NFPA and asked them to reassess whether there was really a market for a handbook on such a narrow topic as fire pumps. The NFPA agreed to publish a handbook on fire pumps co-authored between Milosh Puchovsky and me. We were able to greatly expand on the material and include a number of pictures, which vastly improved the publication over what NFSA had been able to do on its own.

The publication of the NFPA Fire Pump Handbook not only got me started in providing education and information about fire pumps to the industry, but it also got the NFPA to realize that handbooks and education could be profitable on many of their smaller projects and started a wave of publications on a variety of subjects that is still making the NFPA money today.

It does my heart good to know that I have helped to educate thousands of people as to the correct design, installation, inspection, testing, and maintenance of fire pumps. But it also does my heart good to know that I helped to create a whole industry of specialty training in all sorts of smaller areas than just the big three that the NFPA used to cover (life safety, sprinklers and alarms).

### **EOD**

The NFSA Engineering Staff has always been willing to provide verbal and written opinions on what the codes and standards mean and how to apply them. During the 1980's and 1990's, when there were just two or three of us in the Engineering Department, we could not promise when we would respond to a request for help. We did everything that we could to get back to people as soon as possible. But there were times when we would be gone for a long period of time and it would be difficult to respond quickly.

By the beginning of the 21<sup>st</sup> Century, developments in technology, as well as additions to the NFSA staff allowed us to start promising that we would be able to dedicate a person from our Engineering Staff to answer questions from our members on a full time basis. In order to market this new promise, we decided it needed a name. Originally, we called the program "Engineer

of the Day" (EOD). Later, when we started having NICET Level III and Level IV technicians answer the questions, we changed the title to Expert of the Day to keep the EOD abbreviation.

The EOD service started out officially in the fall of 2003. In the more than 10 years that the service has been operational, we have helped more than 15,000 people solve problems relating to the codes and standards and the design, layout, calculation, installation, inspection, testing and maintenance of all kinds of water-based systems.

We regularly use the questions that come out of this program as ideas for training seminars and as the basis for proposing changes to the codes and standards. Where multiple people have similar questions on the use of a particular section of a code or standard, it suggests that the language needs to be clarified. Until the language can be clarified, people need to know how the language is supposed to be used.

The EOD program has had a positive influence on more than the 15,000 people we have helped directly. By publishing the "Best of EOD" questions and answers each month, we end up answering many other people's questions before they even get to the point of writing the question up and sending them to us. The NFSA also catalogs all of the "Best of EOD" articles by subject category and puts them on the website with a subject index for members to search in case they want to see if anyone else has ever asked a question on a subject.

### **Textbook on Layout, Detail and Calculation of Sprinkler Systems**

In the early 1990's the NFSA dramatically improved its 10-day Technician Training Seminar. From that point on, we looked for handouts that we could use to help reinforce the goals and objectives of the class. In true NFSA fashion, since we could not find a text that met our needs, so we wrote one ourselves. Basically, we wrote down everything we say during that 10-day seminar, plus some extra background and material that we don't have time for in the class.

I'm incredibly proud of the second edition of that text (the first edition left a little to be desired from a layout, artwork and durability perspective) and all of the education that it provides to the people who take the 10-day seminar and the people that just pick up the book and read it without taking a seminar.

### **On Line Training**



**View older issues in the "Members Only" section.**

Since the advent of the Internet, the NFSA has always been at the forefront of distance learning. We may not have invented the on-line seminar, but we have produced high quality programming on a wide variety of subjects in a wide variety of formats. The fact that our programs are broadcast live and then recorded allows members to get training "on demand" whenever they need to learn about a specific subject.

Our TV studio and virtual classrooms allow us to deliver training like no other organization in the fire protection business. From two-minute Video EOD's to 15 week distance learning programs on specific subjects, the NFSA has a way for anyone to learn about fire sprinkler systems from any corner of the globe. By eliminating the need to travel to a classroom, the NFSA has made training truly accessible to everyone in the fire sprinkler business.

### **Top Tech Competition**

In 2006, the NFSA Board of Directors came to the Engineering and Standards (E&S) Committee and said, "We'd like you to create a competition that will increase excitement (and attendance) at the NFSA Annual Seminar and Exhibition." They wanted us to figure out how we could determine the best technical people in the fire sprinkler industry in a manner that is interesting for spectators.

A small task group of the E&S Committee came up with what we know as the Top Tech Competition. Even as I leave the NFSA, plans are being made for the Top Tech 2015 Competition in Orlando, FL, which promises to be even better and more exciting than the four competitions that I have run in 2007, 2009, 2011 and 2013.

### **Moving On**

One of the reasons that I feel so good about moving on is that I know that I am leaving the NFSA in good hands. The team of people here in the Engineering Department (as with all of the Departments of the NFSA) is the best group of individuals that I can imagine, dedicated to serving the members of the fire sprinkler industry. During the transition, I have worked with Victoria Valentine, who is now the Director of Engineering here at the NFSA and in charge of the Engineering Department. She is energetic and enthusiastic about her new role and is eager to continue the tradition of excellence that the NFSA Engineering Department has established. I have full confidence that the NFSA will do extremely well after I depart my full-time role.

Another reason that I feel good about moving on is that I'm still going to be able to interact with people from the fire sprinkler industry in my new role. I hope to retain many of my seats on NFPA codes and standards committees that write critical documents to the fire sprinkler industry. In that manner, I hope that I can continue to wonderful personal and professional relationships that I have had with so many wonderful people.

It has been a tremendous pleasure and honor to have served you for so long. I've seen the fire sprinkler industry from a unique perspective over the years and it has been fun. The industry is much bigger, much better, and much more sophisticated than it was 28 years ago. I look forward to what it will be 28 years from now, knowing that I will have a hand in helping it get there.

Good bye for now, I'll see you again soon.

### **Upcoming In-Class Seminars**

**Sept 19 Vancouver, WA  
Residential Sprinklers Homes  
to High-Rise**

**Sept 23 Stow, MA  
Understanding, Applying &  
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**Oct 6-17 Jacksonville, FL  
Layout Technician Training**

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### ***Did You Know??***

*The NFSA keeps a member of the Engineering Department staff on duty every business day to answer your technical questions live. We call this the Expert of the Day (EOD) program and it is available to our members by phone, fax, or e-mail. Call us at (845) 878-4200 and press 5, or you can send a fax to (845) 878-4215, or you can e-mail us at eod@nfsa.org. Last year we answered more than 2600 requests for assistance.*

Ken Isman

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