INTERVIEW

# Fire & Life Safety Standards

## *A Perspective From the 2013 Parmalee Award Recipient*

### Q&A With Russ Leavitt, Executive Chair of Telgian Corp.

***Russ Leavitt, the 2013 recipient of the American Fire Sprinkler Association's Henry S. Parmalee Award, discusses standards development in the fire sprinkler industry. He explains why he believes new standards could be developed to address the commissioning and testing of integrated fire and life safety systems, as well as to set requirements for mass notification systems.***

**FPPS:** ***Please provide a brief description of your professional background and your position as executive chair and board member for Telgian Corp.***

**RL:** I started my career in the fire protection industry as a fire sprinkler design trainee with a large regional fire protection contractor in 1981. After completing my training, I was transferred to San Diego, CA, where after 1 year, I was promoted to lead designer over a team of five technicians.

Russ Leavitt

In 1987, I took a job as the general manager for a fire sprinkler contracting firm where I was responsible for all operations, including sales, design, material procurement, fabrication and system installation. During this time, I became involved in a variety of professional and trade organizations.

In 1990, a business partner and I formed Fire Design Group to provide fire protection system engineering and design services to developers, architects and contractors. In 1991, we merged our firm with Tomes, Van Rickley and Associates, a consulting firm founded by two retired San Diego chief fire officers. Over the subsequent years, I served as president, CEO and now executive chair of the company, which in 2006, was rebranded as Telgian Corp.

In my role as executive chair, I have direct oversight of our human resources and organizational development team, corporate counsel and compliance team, and research and development efforts. I am the lead industry face of the corporation, which includes heavy involvement in the code and standards development process along with industry training and advocacy.

**FPPS:** ***You are the 2013 recipient of the American Fire Sprinkler Association's (AFSA) Henry S. Parmelee Award. Why is this award significant?***

**RL:** I have been involved with AFSA since my days as a contractor. I started to conduct training for AFSA in the early 1990s and have written many AFSA training and instruction guides over the years. My involvement with AFSA led to my role as a senior instructor with NFPA's professional development program, which has taken me around the world as an ambassador for what I consider to be the best fire and life safety codes and standards in existence. To be recognized for my efforts in educating and training fire protection professionals is very gratifying and a little humbling. Many have contributed much more than I have so I can say I was shocked when I was notified of my selection.

**FPPS:** ***You have helped develop standards and codes for the fire and life safety industry. Which areas of the fire sprinkler industry in particular are actively developing new requirements in codes and standards?***

**RL:** The fire sprinkler industry is heavily invested in several current areas of code and standard development.

The explosion of new sprinkler technology is a major force behind revisions to current standards. As new sprinklers are introduced to the market, the standards often must be revised to address the specific use and applications for these new devices. Sprinklers exist for specialized uses, such as combustible concealed spaces and specialized storage configurations, and other sprinklers are regularly introduced.

The most visible and controversial activity involves the requirement for fire sprinklers to be installed in new single- and two-family residences. After years of debate, the 2009 International Residential Building Code included a requirement for all new single-family residences to be equipped with fire sprinklers. The debate surrounding this has been intense, with some states, such as Arizona and Texas, refusing to adopt this portion of the code, while other states, such as California and Maryland, comply with the new requirements.

In 1992, NFPA published **NFPA 25**, Standard for the Inspection, Testing and Maintenance for Water-Based Fire Suppression Systems. NFPA 25 focuses on the operational status of systems and not on design or installation deficiencies.

**FPPS:** ***What areas of the fire and life safety industry do you think could benefit from the creation of new or additional codes and standards?***

**RL:** One area of concern is the commissioning and testing of integrated fire and life safety systems. Building commissioning is not new, but a movement is underway to develop standards for the commissioning process. A piece of commissioning involves fire and life safety systems. In 2012, NFPA published NFPA 3, Recommended Practice for Commissioning Integrated Testing of Fire Protection and Life Safety Systems. Recommended practices do not use enforceable language, and the technical committee was tasked with creating a standard for the integrated testing of systems—NFPA 4. The concern is that many fire and life safety systems are interconnected.

For example, if a sprinkler is activated and water flows, the alarm system is activated, indicating fire conditions. Along with the alarm system, building mechanical systems may be interconnected to shut down air handlers, and an elevator recall may be initiated, along with other systems. Ensuring that these interconnected systems all function must be verified not only when the building is first constructed, but also periodically thereafter.

Another area receiving much attention is the development of standards for mass notification systems. The need to deliver information and warnings to large campus-like facilities has been driven by natural disasters, terrorism and other events, such as the recent university campus shooting rampages.

**FPPS:** ***Based on your experience in standards development, how can the fire and life safety industry avoid the obstacles that often accompany the creation and adoption of new codes and standards?***

**RL:** To answer this question, one must understand the purpose of most codes and standards. Virtually all purpose statements in codes and standards use the term *reasonable*. For example, the purpose statement found in NFPA 20, Standard for the Installation of Stationary Fire Pumps for Fire Protection reads "The purpose of this standard is to provide a reasonable degree of protection for life and property from fire…"

Reasonable always has an economic basis. How one defines reasonable is always influenced by whose money is being spent. Therefore, much of the debate in the standard and code-making process is centered on what is reasonable.

The biggest obstacle faced when creating and adopting new codes and standards is ensuring that those who are affected feel that they are receiving a tangible benefit for the cost of implementation. NFPA addresses this by having an open creation and adoption process. NFPA requires that technical committees have representation from all stakeholders, such as enforcers, contractors, manufacturers, owners and consumers, and that no single interest category may hold more than 30% of the voting seats on the committee. Not all codes and standards follow this process. For example, only building officials have votes in the process of making changes to the International Building Code, which means that one stakeholder group has ultimate control over the content of the code.

**FPPS:** ***Have there been any new technological advances in the fire and life safety industry within the past year?***

**RL:** I do not have any specific advances for the past year, but we are seeing a concerted move toward using building information system design applications more and more. Other items include the continued development of wireless fire alarm systems, new criteria for protecting high-piled storage and remote testing of fire pumps.

**FPPS:** ***You contributed to the 2011 and 2014 NFPA 25 handbooks. How does the 2014 version differ from the 2011 version?***

**RL:** The 2014 edition of the standard has two new features that include more information about whether or not a specific item is within the standard's scope. This information helps determine whether the issue is a design-related item (out of the scope) or operational item (within the scope). It also includes a section with detailed step-by-step processes for conducting many tests required by the standard.

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**FPPS:** ***You have more than 30 years' experience in fire and life safety industry training. How have your training methods and techniques evolved over the years?***

**RL:** My first live seminars used overhead projectors for displaying information from transparencies along with an occasional videotape shown on a television. For onsite seminars, we now use PowerPoint presentations, which include videos, interactive exercises and the ability to access online versions of the code or standard. I did my first audio-only remote seminar about 10 years ago. The participants could listen on the telephone and follow the presentation using a download or printed copies of the accompanying PowerPoint. Webinars are now used, which include live interaction and go-to-type meeting presentations that allow for a virtual classroom setting. These are time-efficient and cost-effective.

Early on, we conducted many printed home study programs, but these have now been superseded with online training that allows participants to take assessments or examinations.

**FPPS:** ***You have also developed training and study guides for AFSA. How much research is involved in developing these guides? How do you ensure that they include only the most up-to-date information?***

**RL:** Much research goes into preparing training and study guides. It is important to recognize the regional variations regarding the adoption process for codes and standards along with differences between standard practices. These differences must be considered when making a guide to be used broadly.

With the rapid development of new fire protection technology, information that is applicable today can become old news rather quickly. I always try to include some major items that are in the development pipeline. One advantage of serving on technical committees is that it makes one privy to the newest technology under consideration by manufacturers and the industry in general. ✪

**Russ Leavitt** *is executive chair and board member for Telgian Corp.*


# Fire Protection Practice Specialty Events at Safety 2014

The Fire Protection Practice Specialty's annual open meeting and networking event will be held on Sunday, June 8 at 6:30 p.m. (location TBD). The practice specialty will also sponsor the following sessions during Safety 2014:

**June 9, 10:30 a.m.-11:45 a.m.**
505: Understanding Basic Fireground Operations: Determining the Capabilities & Limitations of Your Fire Department
*Presented by Frank J. Baker, CSP, CFPS, ALCM, Eastern Alliance Insurance Group, Noblesville, IN*

**June 9, 3:15 p.m.-4:15 p.m.**
529: Practicing Emergency Preparedness: The Key to a Successful Failure
*Presented by Gabriel F. Miehl, CSP, CFPS, GE Transportation, Erie, PA*

**June 10, 10:30 a.m.-11:45 a.m.**
605: Fire Protection for Common & Special Hazards
*Presented by Walter S. Beattie, CSP, CFPS, CSHM, Pottstown, PA*

**June 10, 3:00 p.m.-4:15 p.m.**
653: Life Safety Code 101
*Presented by Alan P. McCartney, CSP, CFPS, CHCM, Tennessee Valley Authority TVA, Chattanooga, TN*

**June 10, 4:30 p.m.-5:30 p.m.**
696: Key Issue Roundtable: Emergency Management
*Presented by Edward L. Zimmermann, CSP, Baker Hughes Inc., Midland, TX, & Leo J. DeBobes, CSP, CHCM, CPEA, Stony Brook University Hospital, Stony Brook, NY*

**June 11, 3:00 p.m.-4:00 p.m.**
782: An OSHA Perspective on Combustible Dust Safety & Compliance
*Presented by Jason Reason, CSP, CIH, CHMM, Lewellyn Technology, Inc., Linton, IN*

For more information, visit the **Safety 2014 website**.