

Q FIRE MARSHALS QUARTERLY



INTERNATIONAL FIRE MARSHALS ASSOCIATION • Spring 2003

IFMA Fire Protection Institute Offerings 2003

Management Institute for Fire Marshals

Four-day offering: Includes Developing Effective Relationships with Elected Officials

March 24–27, 2003

*Campbell's Resort and Conference Center
104 W. Woodin Avenue
Chelan, WA 98816
(800) 553-8225 or (509) 682-2561*

Two-Day offering

*April 29–30, 2003
Oakland Community College
Building T, Room 1
2900 Featherstone Road
Auburn Hills, MI 48326-2845
(248) 232-4580; Fax (248) 232-4095*

The Management Institute for Fire Marshals is another in a series of courses offered by the International Fire Marshals Association Fire Protection Institute to assist persons involved with fire prevention. The Fire Protection Institute course — *Management Institute for Fire Marshals* consists of two sessions over a two-day period on April 29–30, 2003, or three sessions over a four-day period on March 24–27, 2003. These sessions are taught by experts in their field.

Who should attend? This course is open to all individuals interested in furthering their basic knowledge and understanding of managing a fire prevention program, including fire prevention personnel interested in advancing their career,

Principles of Fire Protection Engineering

March 24–27, 2003

Hampton Inn Tropicana
4975 South Industrial Road
Las Vegas, NV 89118-1658
(877) 584-6835 or (702) 948-8100

The room rate is \$69 for single or double. Deadline for room reservations is February 23, 2003. In order to receive the SFPE room rate, please state you are part of the SFPE group.

September 29–October 2, 2003

Baltimore, MD
Location to be determined.

IFMA and the SFPE are offering the Principles of Fire Protection Engineering course on March 24–27 and September 29–October 2, 2003.

The Principles of Fire Protection Engineering course is open to all individuals interested in gaining or refreshing their basic to intermediate knowledge of the principles of fire protection engineering. Who should attend? Individuals with design, enforcement, or advisory responsibilities; fire protection engineers; architects; fire prevention personnel; and others concerned with fire protection. The course will be offered in three options to allow greater flexibility in meeting your educational needs:

1. Four-day option covers all ten subjects.
2. Session 1 two-day option covers subjects 1–5.
3. Session 2 two-day option covers subjects 6–10.

Subjects are outlined on page 3.

continued on page 3

*For additional information and registration forms, please go to
<http://www.nfpa.org/MemberSections/IFMA/Training/Training.asp>.*

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Fire Marshals Quarterly

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Published quarterly as a service to the membership of the International Fire Marshals Association (IFMA). The articles published in the *Quarterly* are the opinion of the authors and not necessarily the opinion of IFMA or NFPA.

Editor: Steven F. Sawyer
Co-Editor: Amy Sturtevant

We encourage you to send items of interest to:

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IFMA Fire Protection Institute Offerings 2003 continued from the cover

Management Institute for Fire Marshals

fire marshals, and others interested in becoming managers. The course addresses the following topics.

Strategic Planning for Fire Prevention Programs

Major points of this presentation include:

- Developing mission statements, goals, and values
- Determining current situation status and mapping out a plan for the future
- Creating the essential ingredients of a strategic plan
- Managing participant input to obtain a commitment to the final plan

Evaluation of Fire Prevention Programs

This presentation will address:

- Communicating with the public on the progress of the strategic plan
- Developing work load indicators and measurements of effectiveness and efficiency
- Constructing annual organizational performance reports
- Transmitting evaluation and audit report results to policy makers and managers

Developing Effective Relationships with Elected Officials – (four-day course only)

- Building partnerships with elected officials
- Good communication with elected officials
- Best approaches to influencing political decision(s)
- Establishing effective partnerships
- Scoring political points

The course fee is \$125 for two days and \$325 for four days. Participants are responsible for their own travel, meals, and lodging expenses.

Principles of Fire Protection Engineering

The Principles of Fire Protection Engineering course consists of ten sessions over a total period of four days. The sessions include the following engineering educational subject areas:

- 1. Combustion and Ignition Phenomenon:** Theories of diffusion flame combustion, fire dynamics, suppression theory, and suppression agents.
- 2. Fire Endurance Evaluation:** Review of the development and application of standard and innovative fire endurance test procedures for building assemblies including doors, windows, walls, floors, and ceilings.
- 3. Construction and Structural Features:** Performance of basic construction materials in the fire environment. The fire compartment involvement process and the concept of designing building compartmentalization.
- 4. Materials Applications:** Evaluation procedures for flame spread, smoke production, and toxicity of interior finish, floor coverings, and furnishings.
- 5. Fire Protection Design Evaluation:** Procedures for the evaluation of fire safety. Smoke management systems design principles and evaluation techniques.
- 6. Life Risk Analysis:** Human tenability limits. Human behavior variables in fire incidents including convergence clusters, social inhibition-facilitation, altruistic, and non-adaptive actions.
- 7. Detection and Alarm Systems:** Review of the types of detectors and the laboratory evaluation test procedures. Reliability and installation design characteristics.
- 8. Sprinkler System Developments:** Characteristics of design and approval of the various types of sprinklers and water mist nozzles with application implications.
- 9. Design of Water Suppression Systems:** Design of sprinkler and water mist systems with review of standard procedures and innovative research applications.
- 10. Egress and Exits:** Basic theoretical code concepts with examination of egress components and design variables.

2003 Spring Regional Fire Code Development Committees

To encourage greater fire service participation in the NFPA Codes and Standards Making System, NFPA and IFMA have established four Regional Fire Code Development Committees. The members of these committees are from the fire service in your area. These committees are responsible for developing proposals for changes to NFPA Codes and Standards, reviewing the Report on Proposals (ROP) and developing comments on proposed changes, and acting as liaison to their region's fire service for inputting changes to NFPA Codes and Standards.

For a list of codes and standards the committees will be acting on at these meetings and for the committee list go to www.nfpa.org. We encourage you or a representative to attend, but if you unable to attend and have comments, please contact a committee member from your area.

Northcentral

March 18–19, 2003: Hyatt Regency O'Hare, Chicago, IL, 8:30 a.m. to 4:00 p.m.

Northeastern

February 26, 2003: Crowne Plaza Albany Hotel, Albany, NY, 8:00 a.m. to 4:00 p.m.

Southern

March 11–12, 2003: Four Points by Sheraton Riverwalk North, San Antonio, TX, 8:30 a.m. to 4:00 p.m.

Western

March 4–5, 2003: DoubleTree Hotel at Reid Park, Tucson, AZ, 8:30 a.m. to 4:00 p.m.

There is no cost to attend the meeting. You are responsible for all costs associated with your travel. These meetings are held twice yearly, the next meetings will take place in the fall of 2003. If you are interested in attending, please complete the attached form. If you have any questions, please contact Steven Sawyer at (617) 984-7423 or ssawyer@nfpa.org.



Spring 2003 NFPA/IFMA Regional Fire Code Development Committee Meeting Attendance Form

Name: _____
 Title: _____
 Address: _____
 City: _____
 State: _____ Zip: _____
 Phone #: _____
 Fax #: _____
 E-mail: _____

I plan on attending the Spring 2003 Northcentral
 Northeastern Southern Western Regional Fire Code
 Development Committee Meeting

Please return by February 24th:

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Fire Marshals — A New Vigilance Required

By Captain Tommy E. Jones, Fire Marshal
Griffin, Georgia



The uniqueness of a fire marshal's job is almost unprecedented, even in a modern workforce that seems to be developing and encouraging diversity and flexibility as a new job essential. Lets face it, there are not many careers that offer sitting in on an elementary school reading of *The Little Fire Engine That Could* in the morning, meeting with architects and engineers for code compliance in the afternoon, and busting arsonists at three o'clock the next morning. Fire marshals and fire prevention specialists are often the department's key public contacts and are frequently called upon by suppression personnel to handle interaction with building owners and citizens. These traits require an almost 180-degree turn from the necessary fortitude of a suppression officer in the task of emergency scene resolution.

Fire marshals must be the epitome of situational adjustment when walking the sometimes fine line between job task completion and public relations fallout because so often they are the ones standing in the middle. Changing hats from disciplining a code violator to delivering a speech to two hundred members of a civic club are daily occurrences in the life of a fire marshal.

But what will the new fire marshal look like in a post 9/11 world? What new roles will be defined to meet the challenges of *homeland security*, *bio-terrorism* and *public vigilance*? Experience and history certainly predict that the brunt of the changes affecting fire service will fall directly on the shoulders of prevention specialists, especially in smaller departments. If there were ever an hour for fire marshals to lead their departments and communities into a proactive approach toward the new mission of terrorism, it is now.

Recent events following 9/11, such as anthrax scares, left most departments fumbling for appropriate responses and investigators scratching their heads. Many agencies treated those incidents like a hot potato, tossing it from one to the other, saying things like "it's a haz-mat incident, let the fire department handle it," or "criminal act; it's a police matter." In the grand scheme of things, bio-terrorism is *everyone's* problem, and it will take key players to form a more proactive stance so we are not caught off guard like we were in fall of 2001.

It is time for a new vigilance, and the theory of "homeland security" will thrust the fire marshal into three new roles:

1. Proactive planner and bio-terrorism educator
2. Hazardous incident investigator (a more expanded role)
3. Protector of first responders

Prepare the Way, Then Show the Way

Anyone with Internet access can log onto sites such as the Centers for Disease Control(CDC) and other resources to learn the latest on bio-hazards, but there is little information on public health in relation to public safety. However, since the deaths of more than three hundred brothers at the World Trade Towers, the status of public trust in the fire service has propelled us into a higher degree of fostering the citizenry. Translation: Anyone can read a CDC report on smallpox, but hearing it from a fire fighter may give the public a higher degree of caution, and possibly a greater level of comfort. This is a privilege the fire service must hold sacred, whether we like it or not, even if it causes us more work with less resources, and even if we can't offer sure absolution to the end result. Now is the time for agencies to form proactive response procedures and pass this valuable information on to the public. The end result will be a more professional, effective delivery of service, while increasing public exposure and support for fire departments. Fire marshals will be relied upon heavily to begin this valuable process and to make it a daily way of doing business (many departments have been downplaying their bio-responses since the hype has died down). Why fire marshals, you ask? The answer is found in what we have been building on and that is using the uniqueness of the job as a catalyst for success. The ability to relate to the public as a fire fighter and also to bring some law enforcement background (many marshals are sworn officers) to the table offers credibility to the issue of bio-terrorism in local communities.

continued on the next page

Fire Marshals — A New Vigilance Required continued from the previous page

“Give Me Three Steps” (*Gather the Seeds, Sow the Seeds, Tend to the Crop*)

So many times, we in public safety have seen high-alert incidents like school shootings, which bring communities to a new level of awareness and create a proactive response. Of course, as time goes on and paranoia diminishes, the vigilance and awareness often trickle away and back to a reactive state. In the case of school shootings, this attitude is unacceptable, and so is the approach that communities take to bio-terrorism and homeland security. Communities cannot be allowed to lose the post 9/11 degree of awareness or we will find ourselves back to a reactive state WHEN it happens again.

The authority of a fire marshal can go a long way in ensuring the appropriate measures are put in place and stay in place. The following are three steps in building a continued awareness:

- 1. Gather the Data:** The fire marshal must rely on high-tech resources such as the Internet to prepare himself for the new threats of our time. Internet access to helpful databases will provide the learning tools for the task as well as key contacts and professional resources. As the community’s key resource for WMDs and bio-threats, the marshal needs as many resources as possible to guide agencies, businesses, schools, and other segments of the community in a continued awareness of the problems.
- 2. Plant Each Seed Separately:** Preparing a press release on bio-hazard safety for the local paper is not an adequate way for developing a new community awareness. This method is like throwing a handful of seeds out into a field and hoping for the best. Some will grow, some will not. Even though we will never get everyone to buy in and take hold of a proactive response, the quality of the relationships we build will be much more effective and based on a solid foundation. The fire marshal must select key areas and organizations for building bridges of trust and creating a more vigilant and prepared community. Over time, other organizations may see the advantages of a bio-terrorism response and buy in.
- 3. Tend to the Crop:** Experience has shown that post-traumatic, reactive planning usually burns like wildfire but soon dies as soon as fears subside. Such is already the case with community preparedness for terrorism. One of the most unforgivable assumptions that someone in a non-metropolitan area can have is that terrorism will only strike in larger cities. That is exactly what terrorists want us to believe and eventually they will hit us where we are most vulnerable. It is crucial that fire marshals fight against these paradigms and ensure that organizations stay on top of their plans with regular drills and updated data. Again, by maintaining a

close eye on community awareness, the fire marshal will not only ensure readiness but also expand his department’s exposure and promote goodwill.

Bio-Terrorism Investigator?

Most of us who wear fire boots with tucked-in coveralls while digging through burned debris would have never believed that one day we would be called upon to investigate biological incidents. No fire academy or in-service program could have ever convinced us of the need for developing investigative skills for those calls. No sense looking back, because it is here and the fire marshal will be called upon to expand his already diverse mission to take on the task of bio-terrorism investigator. To adjust to this role, the marshal will have to fall back on the basics he was taught in fire investigation school. Using NFPA 921 and 1033 as guidelines will serve as a basic foundation in dealing with valuable preservation of physical evidence and investigative professionalism. The most complicated part of the process will be incorporating hazardous materials response and mitigation into the investigative process. Digging through rubble in the smoldering phase will get you a snotty nose and a headache; exposure to a bio-hazard product could and probably will have more severe consequences. That is why the investigator will have to add haz-mat expert to his list of accolades (I hear you growling now). You can rest assured that the issues of protective clothing and decontamination processes will soon begin popping up in the form of seminar topics and test questions all over the fruited plain. Most states carry a First Responder for Hazardous Materials course that is generally two to three days and should cover enough information to ensure the investigator’s safety.

You Grab a Line, I’ll Grab a Gun

In the late 1990s, when the secondary device scare was increasing the first responder “pucker factor” to its highest limits, the role of observers and on-scene safety officers took a new meaning. Fire marshals, mostly because of their exposure to law enforcement (and the fact that many of them carry guns), were thrust into becoming more of a “scene security officer” while the incident was non-static. With this notion in place before 9/11, can we expect a more expanded role of scene security for first responders since that tragic day? Most wager that we can. Many warnings to fire departments from federal agencies in the days following 9/11 prompted increased security measures for America’s real first-line defenders (the content of those warnings will not be discussed — can’t give the enemy any ideas). Fire marshals who were sworn officers and who did not carry a weapon on a daily basis suddenly found themselves ordering leather gear and getting measured for body armor. A fire fighter with a gun? Some would argue that’s more dangerous than a police officer with turnout gear. Jokes aside, it may be time for fire marshals

continued on the next page

Fire Marshals — A New Vigilance Required continued from the previous page

to look at their investigative role and begin including scene security in their pre-fire scene examination duties. A suggestion for thought is for the marshal to go on-scene when the engine company arrives and perform security sweeps and hazard (secondary device) lookout. This notion goes far beyond police assistance because their programming usually keeps them near the street for traffic and crowd control.

As the fire service transitions into a post September 11th world, we must ask ourselves if we have properly adjusted to our new roles, and have we fulfilled public expectations as America's first-line defenders from foreign invaders of a new sort? Most of us would agree that we will never be totally ready for the enemy's dirty methods; however, as we have done since the beginning of the organized fire service,

adaptation and re-invention, cradled in a blanket of vigilance and fortitude will see us into the transition of being providers of homeland security. As our President told us: "If you got a uniform, get ready." If you're a fire marshal, get ready. Many will be relying on the flexibility and culture of that position to lead the charge of a bio-terrorism response.

Captain Tommy E. Jones is the fire marshal in Griffin, Georgia. In the post-911 bio-hazard scare, Captain Jones investigated dozens of suspicious substances and threats of anthrax cases. He is a sworn peace officer who works closely with his community developing emergency action plans for many different scenarios. He can be reached at Tjones@CityofGriffin.com.

IFMA Nominating Committee Report: 2003 Executive Board Election

In accordance with Article 8 of the IFMA Bylaws, the report of the Nominating Committee was submitted to the Executive Secretary by the November 30 deadline. The Nominating Committee report will be acted upon by the IFMA membership at the IFMA Annual Business Meeting to be held in Dallas, Texas, on May 19, 2003, at 2:30 p.m.

The Nominating Committee of Jim Crawford, chair; Barbara Koffron; and Walter Smittle hereby submits the following report to the IFMA members:

President, John Bender
1st Vice President, Scott Adams

2nd Vice President, Jon Nisja
Secretary, Jimmy Hill
Director, Don Goff, term expires 5/05
Director, Bonnie Howe, term expires 5/05

Candidates other than those named by the Nominating Committee may be nominated by petition of ten members of the Association provided such petitions are received by the Executive Secretary no less than five and no more than 45 days after publication of the Nominating Committee's nominations. All nominees for office must be members of the Association.

2003 Quarterly Deadlines

The deadlines for article submissions for the 2003 IFMA Quarterlies are as follows:

Summer 03—April 18th

Fall 03—July 18th

Winter 03—October 17th

Please forward (preferable electronically) any articles to the Executive Secretary at ssawyer@nfpa.org.

When Child's Play Becomes Deadly: Little Kids Setting Fires

NFPA data show that preschoolers are in greatest danger

Children playing with fire, most likely preschoolers, cause hundreds of fire deaths and injuries every year. Preschoolers are also the ones who most often die from these fires, according to data from the NFPA. Typically, young children set fires by playing with matches and lighters.

According to an NFPA study, most of the people killed in child-playing fires are under 6, and such fires are the leading cause of fire deaths among preschoolers. From 1994–1998 per year, children playing with fire started 85,620 fires that were reported to U.S. fire departments, causing an estimated 303 deaths, 2,359 injuries, and \$146.1 million in direct property damage.

NFPA data show that roughly three out of every four child-playing fires—and at least four-fifths of associated deaths and injuries—involve matches or lighters. Lighters have a larger share of incidents, deaths, injuries, and property damage. Children also start fires by playing with stoves, candles, lighted tobacco products, and fireworks.

“We can prevent young children from becoming victims of fire,” said Sharon Gamache of NFPA’s Center for High-Risk Outreach. “Educational programs directed at their caregivers as well as product-safety measures can protect them from their own curiosity and playfulness.”

For example, the NFPA’s Learn Not to Burn® Preschool Program teaches preschool-age children match and lighter safety, and should be more widely used. The NFPA’s Center for High-Risk Outreach also has an eight-minute video, “A Lighter Is Not a Toy,” that instructs parents and other caregivers to store matches and lighters away from young children, to use child-resistant lighters only, and to teach preschoolers to tell a grown-up when they find matches and lighters. Both are available to fire departments and parent organizations by calling the Center at (617) 984-7826.

In 1994, the U.S. Consumer Product Safety Commission (CPSC) required that disposable cigarette lighters be designed so that children younger than 5 cannot operate them. A study published this year in the journal *Injury Prevention* found a 58 percent reduction in cigarette-lighter fires caused by children under 5 since the new standard went into effect. The CPSC estimated that this prevented 3,300 fires, 100 deaths and 660 injuries in 1998.

NFPA offers these tips for the parents and caregivers of young children:

- Use only child-resistant lighters, but remember they are not child-proof.
- Store all matches and lighters out of children’s reach and sight, up high, preferably in a locked cabinet.
- Never leave young children unattended.
- Never use lighters or matches as a source of amusement for children. They may imitate what you do.
- If you suspect your child is playing with fire or unduly fascinated with fire, get help immediately. Your local fire department, school, or community counseling agency can put you in touch with experts trained to help.
- Teach young children to tell an adult if they find matches or lighters, and teach school-age children to bring any matches or lighters to an adult.
- Teach kids to stop, drop, and roll if their clothes catch on fire.
- Teach young children when fire strikes, not to hide, but to get out of the house immediately.

For more information on fire safety, please go to www.nfpa.org. For this and other NFPA Headlines, please visit <http://www.nfpa.org/PressRoom/index.asp>.

Modified JCAHO Standards Reference 2000 NFPA 101, *Life Safety Code*® Reference keeps accredited organizations current

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the nation's predominant health care standard-setting and accrediting body, recently modified its Environment of Care standards in all of its accreditation manuals to reference the 2000 edition of NFPA 101, *Life Safety Code*®. JCAHO had been utilizing the 1997 edition of the code for its accreditation surveys and visits to gauge the fire and life safety performance of health care occupancies.

The *Life Safety Code*, which is used in every U.S. state and adopted statewide in 34 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, including health care occupancies.

Provisions in the 2000 edition of NFPA 101 have been updated to include clarifications on a number of issues affecting new and existing hospitals, including new criteria for locking arrangements, field applied protective plates on doors, and conditions under which standard response sprinklers can remain in use, allowing for construction modifications that are normally only permitted when quick response sprinklers are installed. A significant change in the 2000 code is the introduction of detailed goals and objectives for fuller evaluation of proposed equivalencies in certain circumstances when code compliance would not otherwise be readily achievable. The code's goals and objectives must also be shown to be met when the performance-based design option is utilized (also introduced in the 2000 edition).

OSHA Revises Standards with Latest Edition of NFPA 101, *Life Safety Code*® Says NFPA 101 provides comparable safety to its Exit Routes Standard

The U.S. Occupational Safety and Health Administration (OSHA) has revised its standards for means of egress, concluding that NFPA's 2000 edition of the *Life Safety Code*® provides comparable safety to OSHA's Exit Routes Standard. The OSHA final rule, which becomes effective December 7, 2002, permits employers to comply with NFPA 101-2000 in order to meet means of egress standards.

"OSHA's revision to the federal egress standard is a noteworthy benefit to employers and the general public," says NFPA President James M. Shannon. "Today, more than ever, people are aware of the enormous benefits of a fast and thorough emergency building evacuation. The state-of-the art egress provisions found in the *Life Safety Code* make an important contribution to public safety."

The *Life Safety Code*, which is used in every U.S. state and adopted statewide in 34 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, including health care occupancies.

The *Life Safety Code* is a key element of the Comprehensive Consensus Codes™ (C3) set (www.c3codeset.org). The C3 set offers state and local governments the first opportunity to select a full set of codes developed through ANSI-accredited processes. That set is being developed through a partnership involving NFPA, the International Association of Plumbing and Mechanical Officials (IAPMO), Western Fire Chiefs Association (WFCA), and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). In states that adopt key elements of the C3 set, NFPA and IAPMO will make available free training and associated code-books to code enforcers.

For electronic copies of the final rule, log on to www.osha.gov. For additional information about the *Life Safety Code* and NFPA, log on to www.nfpa.org.

NEW Fire Suppression Rating Schedule Handbook 2002

By Harry E. Hickey, Ph.D.

The Society of Fire Protection Engineers is pleased to offer the 2002 edition of Dr. Hickey's *FSRS Handbook*. The first edition, issued in 1993, was well received as a useful resource by thousand of readers. This new edition has *six new chapters*, as well as extensive revisions to make the Handbook even more helpful. Dr. Hickey brings his more than 50 years as educator, author, and consultant to the development of this reference with the objective of improving the *understanding of the processes and procedures for Insurance Services Office grading evaluations*. The Handbook is a must for fire chiefs, city managers, and others interested in public fire protection. Fire protection is the only municipal service where improved capability can result in financial savings to tax payers through reduced property insurance premiums. The Handbook will explain the process and help the reader understand and prepare for the grading evaluation. Each chapter is designed to answer specific questions. The Table of Contents is shown below.

Chapter 1: The Insurance Services Office. Who Are They and What Do They Do?

Chapter 2: Public Protection Classifications—What Are ISO Public Protection Classifications?

New Chapter 3: Property Fire Insurance—What Impact Does a City's Public Protection Have on Property Insurance?

Chapter 4: Public Fire Protection Classification Details—What is the Significance of Public Protection Classification Details?

Chapter 5: Needed Fire Flows How Are Needed Fire Flows Determined?

Chapter 6: Fire Alarm—What Is the Criteria for Receiving, Handling, and Dispatching Fire Alarms?

Chapter 7: Fire Apparatus—How Many Fire Trucks Does a City or Fire Protection District Need?

Chapter 8: Fire Suppression Training—What Fire Company Training Is Needed for Structural Fire Suppression?

Chapter 9: Fire Suppression Personnel—How Many Fire Fighters Are Needed on the First Alarm to Structure Fires?

New Chapter 10: Fire Station Locations—Where Should Fire Stations Be Located to Provide Proper Distribution of Engine and Ladder Companies?

Chapter 11: Water Supply—How Is a Municipal Water Supply System Evaluated to Meet Needed Fire Flows?

New Chapter 12: Augmenting Municipal Water Systems—How Can Existing Municipal Water Supplies Be Augmented to Meet Needed Fire Flows?

Chapter 13: Individual Property Fire Suppression: Grading Schedule Section II—How Does ISO Evaluate Individual Building with Needed Fire Flows in Excess of 3,500 G.P.M.?

New Chapter 14: Building Code Compliance Assurance—How Does the Insurance Services Office Evaluate Adopted Building Codes?

New Chapter 15: The Grading of Woodland, USA—How Is a City Actually Graded by an Insurance Services Office Field Representative?

New Chapter 16: An Administrative Perspective on Improving an ISO Public Protection Classification

How Can Public-Sector Fire Protection Policy Be Used to Improve a City's Public Protection Class at Minimum Cost?

Please contact SFPE at 7315 Wisconsin Ave, Suite 1225W, Bethesda, MD 20814; phone (301) 718-2910; fax (301) 718-2242; or www.sfpe.org for information.

Fire Investigation Summary

**Supermarket
Phoenix, Arizona
March 14, 2001**

A fire that began in the rear of a supermarket in a multi-tenanted shopping plaza resulted in the death of a fire fighter. The fire fighter became disoriented and was eventually located deep within the building.

The fire, which began in combustibles stored outside near a loading dock, spread into the rear stock room of the supermarket. The fire fighter was on one of the initial attack hoselines when his air supply began to run low. During his attempts to exit the building he became disoriented and sounded a Mayday call. Several attempts were made to locate and rescue this fire fighter, as the fire spread rapidly through the building.

On March 14, 2001, at approximately 4:54 p.m., a debris fire at the rear of a shopping plaza was reported to the Phoenix Fire Department. The fire would spread into the shopping plaza and result in the death of a fire fighter and in injuries to several others.

The fire began in a pile of debris adjacent to a compactor unit in the rear of a supermarket. The supermarket was located in a shopping plaza containing several retail occupancies. The fire spread into the attic and roof spaces of the supermarket, eventually spreading throughout the store. The store was occupied at the time the fire was discovered.

A short time after the Phoenix Fire Alarm Office received notification of the fire by phone, Phoenix Fire Department units in the area reported seeing smoke in the area of 35th Avenue and McDowell Road. Engine 24 was dispatched to the area. Battalion Chief 3 also responded to the scene. (Engine 14, the unit that is normally closest to the reported address, was returning to their quarters from the repair shop with only a driver [engineer].) The first arriving units reported smoke showing from the rear of the hardware store at that address. Further investigation showed that the burning debris was on a dock to the rear of the supermarket.

As personnel from Engine 24 begin to extinguish the exterior fire, fire fighters from Engine 14, which had since responded with a full crew, began to check for extension in adjacent occupancies. Engine 24's crew forced entry into the rear of the store and found that the fire had spread into the combustible roof and attic space/storage area.

As Engine 14's crew (captain and three fire fighters) moved into the front of the supermarket they reported a smoke condition at the ceiling level to the incident commander. Engine 14 then returned to the interior of the store with a hoseline and began to search for the seat of the fire near the



southeast portion of the store. Engine 3 and Rescue 3 had also advanced a hoseline into the southeast corner of the store.

Visibility was reported to be worsening as Engine 14 advanced their hoseline. One fire fighter from Engine 14 reported his low-air alarm was sounding, and he was exiting the building. The captain of Engine 14 directed the fire fighters to exit the building as a team. At this point, another of Engine 14's crew low-air alarm was sounding. During the crew's exit, two fire fighters and the captain lost contact with the hoseline. The captain was able to again gain contact with the hoseline and exit the building. Outside he met with one of Engine 14's fire fighters, who informed him that the other two members of the crew had not exited. It was at this point that the first distress call was heard from one of the lost fire fighters.

The Engine 14 captain informed other crews of the situation and instructed them to follow the hoseline that Engine 14 had used in order to attempt to find the lost fire fighters. The captain and remaining Engine 14 fire fighter refilled their air cylinders and also re-entered the building.

The captain and two fire fighters from Engine 21 located one of the lost fire fighters during their search. However, they lost contact with him after attempting to lead him out of the building on the hoseline. The other lost fire fighter was able to exit with assistance from another crew own after following the sound of voices in the southeast storage room of the store.

Several Rapid Intervention Crews (RICs) were sent to search for the remaining missing fire fighter, as conditions within the store worsened. Eventually the missing fire fighter was located, unconscious in the meat preparation portion of the store. Removal of the fire fighter was difficult due to his size and

continued on the next page

Fire Investigation Summary continued from the previous page

the obstructions located in the storage room and in the path to the exit. His removal required several additional crews. He was eventually removed through the storage room in the southeast corner of the store. He was transported to the hospital where he was pronounced dead.

This fire investigation report reviews the available facts concerning the incident and discusses them in relation to the following significant topics as they are relevant to fighting fires in larger commercial structures:

- Risk Management
- Incident Management
- Personnel Accountability
- Rapid Intervention Crews
- Pre-Fire Planning

Related reports published by the NFPA Fire Investigations Department include the following:

- Lake Worth, Texas—February 15, 1999
- Keokuk, Iowa—December 22, 1999
- Marks, MS August 29, 1998
- Chesapeake, VA—March 18, 1996

The NFPA's Fire Investigations Department documents some of the most significant fires and incidents throughout the world. The objective of these investigations is to determine

what lessons can be learned from these incidents. The information is then made available to the fire safety community to be used in developing future codes and standards. A complete listing of reports is available, either on request or can be viewed on our Web page.

NFPA Fire Investigations Department, 1 Batterymarch Park
PO Box 9101, Quincy, MA 02269-9101 USA; phone (617) 984-7263; fax (617) 984-7110; investigations@nfpa.org, http://www.nfpa.org.

A select number of reports (including this one) are now available in electronic format on the NFPA Web site. More information is available at www.nfpa.org.

Full printed copies of this report or any other Fire Investigation Report can be ordered by contacting NFPA's Charles S. Morgan Library: phone(617) 984-7445; fax (617) 984-7060; library@nfpa.org.

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Code Question

What are the code violation(s)? See page 14 for answers.

If you have a code violation you would like included, please forward to the Executive Secretary with your answer.

President's Corner



Ron Farr

It is the last part of January as I prepare this message and I hope all have had a happy and safe start to 2003.

The past several months have been busy with regard to IFMA activities. The last part of October 2002 I was at the National Fire Academy participating in a review of the Fire Act Grant Program, then the first week of November 2002

I had the honor of attending the Annual Conference of the Florida Fire Marshals and Inspectors Association. November 2002 also took many of us to Atlanta, Georgia, for the Fall NFPA Meeting and IFMA's Annual Fire Marshals Conference. (Thanks to all who attended and a special *THANKS* to those who presented programs on behalf of IFMA. Your support helps us continue to grow.)

Speaking of the Florida Conference . . . a big "pat on the back" goes out to Florida President Don Goff and the entire Florida Chapter Executive Board for an excellent conference and the great hospitality. I use to joke with the Florida Chapter about the Michigan Chapter (as many of you know

that is my home chapter) always having one more member than Florida but I cannot longer do that. Florida has put forth a very successful membership drive increasing their membership in the last couple of years by several hundred members. Congratulations, as you all know, a Chapter's strength is with its members. The more members the more strength and positive impact a Chapter can have in their state as well as the national level.

IFMA Chapters have continued to grow (currently 21) over the past few years but there is still room for more. If you are a member of a state fire prevention organization and there is interest in your group becoming an IFMA Chapter, please contact IFMA Executive Secretary Steven Sawyer. An informational/application packet can be sent for your review and action. Thanks also to our current Chapters for all your support and commitment to fire safety. You are a valuable part of the IFMA!

IFMA has been invited to the National Fire Academy to participate in a planning meeting for a Fire Prevention Advocacy Network. Watch for more information and developments regarding this in future issue of the IFMA *Quarterly*.

Executive Secretary's Report



Steven F. Sawyer

As we start the New Year there are many uncertainties that will affect this next year for all of us both personally and professionally. Our thoughts and prayers go out to those who protect us and our families everyday.

We are in the final planning stages for the NFPA World Congress and Exhibition on May 18–22 in Dallas, Texas. IFMA will have seven educational offerings, executive board meeting, business meeting, codes and standards forum, and the chapter presidents meeting. In addition they will have a booth in the exhibit hall. Hope to see you there. We are looking for educational programs for the Fall Meeting to be held on November 15–19 in Reno, Nevada. If you have an interesting topic and/or would like to make a presentation (4–8 hours long), please contact me.

This is the first edition of the *Quarterly* that is being distributed electronically only. If you, or someone you know, has not sent

me an e-mail yet, please do so ASAP to continue receiving the *Quarterly*.

We are also busy on the codes and standards and professional development front. The Spring Regional Fire Codes Development Committee meetings are coming up. This is a good opportunity to discuss code changes with others in the fire service and submit them to the appropriate NFPA codes and standards. (Please see the article in this edition for location and dates.) We also have four Fire Protection Institute offerings for this year. (See the cover page for additional information.)

John Robison has been working on the history of FMANA/IFMA for the 100th Anniversary. If you have any program, event, or other items of interest related to the Association, please contact John or myself.

IFMA is your organization, if you have any comments, suggestions, or would like to help, please contact a member of the executive board (on page 2).

Chapter Spotlight

Chapter 3, Florida Fire Marshals and Inspectors Association

By Don Goff, President

It has been a year now since the State of Florida adopted its own Florida Building Code and the Florida Fire Prevention Code. The Florida Fire Prevention Code was made up by adopting NFPA 1 and 101, 2000 edition with Florida amendments.

One of the main objectives was to have uniformity throughout the state. Conflicts between the "Fire Code" and "Building Code" were addressed to resolve the better of the two, providing a better degree of safety for the citizen of the State of Florida.

There have been some minor problems, but overall the Uniform Fire Prevention Code and Building Code is working. There continues to be committee meetings to resolve any problems.

On the lighter side the Association has increased their membership to over 700 members. This was accomplished by mailings to all fire marshals and inspectors within the state. Our Executive Director Church Akers and his wife, Juanita, did an excellent job in accomplishing this effort. Also, the

Association continues to provide free, 16 hours of continuing education toward recertification to all our members.

Our annual conference held in Maitland, Florida, was a great success due to the work of Bart Wright, chair, and his committee. This year we were able to invite some distinguished speakers from as far away as Utah. They provided great insight as to what was occurring in their states. These guests included Steven Sawyer, IFMA/NFPA; President Ron Farr (Michigan); Vice President Scott Adam (Utah); and Chief Michael Smith (Washington, DC). The conference presented sessions ranging from Management of Prevention to Inspection Process. The funds gained from the conference and membership dues allow us to sponsor members on NFPA technical committees, and the annual Hospitality Room at the NFPA Conference in conjunction with other Chapters.

In closing, let me express my deepest gratitude to Steven Sawyer, IFMA/NFPA, and all the Chapters for their continued effort in life safety.

Code Question Answer



Important News on the IFMA Quarterly

Beginning with this edition the *Quarterly* will only be made available in electronic format. The cost to print and mail the *Quarterly* is approximately one-third of our operating budget. The recent economic conditions and the need to provide additional services have made IFMA look at its mission and determine where it is best to place our resources. This will also enable us to provide the newsletter in a timelier manner. In addition, important news can be quickly forwarded to the membership.

Please e-mail, fax, or mail IFMA your e-mail address as soon as possible to prevent missing future issues. Please provide the following information in the correspondence: name, address, phone, fax, e-mail, and NFPA membership number and send to:

IFMA
 1 Batterymarch Park
 Quincy, MA 02269
 Or Fax (617) 984-7056
 Or E-mail IFMA@nfpa.org

IFMA Merchandise Order Form

Get your IFMA merchandise to promote IFMA.

Golf Shirt: 100% cotton white golf shirt with red and blue collar and sleeves, IFMA logo on left breast—\$30.00 each, includes postage and handling

Size	Number	Cost	Total Cost
<input type="checkbox"/> Small	_____	\$30	_____
<input type="checkbox"/> Medium	_____	\$30	_____
<input type="checkbox"/> Large	_____	\$30	_____
<input type="checkbox"/> X-Large	_____	\$30	_____
<input type="checkbox"/> XX-Large	_____	\$30	_____

Lapel Pin: \$3.00 each, includes postage and handling

Number	Cost	Total Cost
_____	\$3	_____

Wind Shirt: blue nylon wind shirt with hand pockets, IFMA logo on left breast—\$40.00 each, includes postage and handling

Size	Number	Cost	Total Cost
<input type="checkbox"/> Small	_____	\$40	_____
<input type="checkbox"/> Medium	_____	\$40	_____
<input type="checkbox"/> Large	_____	\$40	_____
<input type="checkbox"/> X-Large	_____	\$40	_____
<input type="checkbox"/> XX-Large	_____	\$40	_____

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SFPE Publishes *Guidelines for Peer Review in the Fire Protection Design Process*

In response to the increase in the use of performance-based fire protection design, SFPE's Board of Directors has approved the publication of *Guidelines for Peer Review in the Fire Protection Design Process*.

Peer review of a fire protection design is typically used by an enforcement official or other party to a design who does not have sufficient resources to provide a review to the desired level of thoroughness. When using peer review, a person who has an interest in the success of a design uses an expert who has the experience and knowledge necessary to judge the likelihood of the design achieving its objectives.

The Guidelines for Peer Review in the Fire Protection Design Process addresses desirable features of the initiation, scope, conduct, and report of a peer review of a fire protection design. *The Guidelines* were developed by a task group of experts in the fire protection engineering field and were made available for public review and comment prior to publication.

Copies of the guide are available at www.sfpe.org or from Society of Fire Protection Engineers, 7315 Wisconsin Ave., 1225W, Bethesda, MD 20814; phone(301)718-2910; fax (301)718-2242.

Tennessee Fire Safety Inspectors Association Holds Its Annual Conference

By Bob Trotter, President

The Tennessee Fire Safety Inspectors Association (TFSIA) held their annual conference on November 5-8, 2002, in Murfreesboro, Tennessee. There were 243 inspectors from across the State of Tennessee in attendance. The TFSIA began hosting conferences several years ago, and then in 1994 Tennessee law required all persons enforcing the provisions of the fire code or building code to be certified. Inspectors must show proof of 36 hours of continuing education in a three-year period.

Bob Trotter, Fire Marshal in Franklin, was elected President at the 2002 TFSIA annual conference. Tommy White, Fire Marshal in Sevierville, was elected 1st Vice President, and Buddy Billings, Fire Marshal in Collierville, was elected 2nd Vice President. Bob Galoppi, Fire Inspector in Hendersonville, was appointed Secretary. Past President is Terresia K. Reasons, Fire Inspector in Jackson.

The TFSIA Board of Directors are Jim Campbell, Building Official in Jackson; Mike Craig, Fire Inspector in Covington; Ken Honeycutt, Assistant Chief in Murfreesboro; Ralph Ramsey, Fire Inspector in Gatlinburg; Mark Schultz, Senior Fire Inspector in Gallatin; Roger D. Stallard, Fire Marshal in Morristown; Scott Sumner, Assistant Fire Marshal in Collierville; and Wayne Waggoner, Southern Regional Manager, National Fire Sprinkler Association, Knoxville.

The Tennessee Code Development Committee will meet on February 10, 11, and 12, 2003, in Murfreesboro, Tennessee, at the Holiday Inn. The committee will be considering code changes to the international codes and NFPA codes and standards.

The TFSIA has posted a newly enhanced Web site. Please visit the TFSIA at www.tnfiresafety.com.

New Members

Last Name	First Name	Title	Organization	City	State
Baker, Jr.	Garland	Fire Protection Analyst	Home Depot USA	Atlanta	GA
Barrett	Peter	Building Fire Inspector	Town of Lewisboro	South Salem	NY
Barton	Jack	Fire Marshal	Parma Town	Hilton	NY
Boland	Jeff	Fire Marshal	Cheshire Town of	Cheshire	CT
Bonner	Jerry	Fire Marshal	Flower Mound Fire Department	Flower Mound	TX
Bower	Dick	Fire Marshal	Giq Harbor WA City	Giq Harbor	WA
Bryant	Gilbert	Fire fighter	Columbia Airport	Columbia	SC
Camarda	David	Fire Marshal	Whitman Township	Blue Bell	PA
Carey	James	Lt. Fire Marshal	Penn State Police	Harrisburg	PA
Carnahan	Ray		Arkansas State Fire Marshal	Little Rock	AR
Carney	Jack		Forest Grove Fire Department	Coraopolis	PA
Carroll	Stephen	Battalion Chief, Fire Marshal	Birmingham Fire Rescue	Birmingham	Al
Carson	Dennis	Comm Supervisor	Town of Tonawanda	Buffalo	NY
Champion	Randy		Contra Costa City Fire	Pleasant Hill	CA
Chan	Kin San	Proprietor	Wing Kai Fire Engineer Company	Kowloon	HK
Ciasca	Robert	Fire Marshal	Burlington Township Fire Department	Burlington	NJ
Clark	Ernest	Fire Chief	London Fire Department	London	KY
Clark	George			West Lebanon	NY
Clark	Jeffrey	Lawyer	Reinhart Boerner Van Deuren	Milwaukee	WI
Clark	Kenneth	Fire Marshal	Abington Township	Abington	PA
Collins	Peter			Columbia	MD
Connolly	Rick	Lieutenant	Schaumburg Fire Prevention Bureau	Schaumburg	IL
Corcovilos	Richard	Plans Review	Charleston, City of	Charleston	WV
Cosgrove	Mel	Fire Marshal	Mobile Fire Department	Mobile	AL
Coyle	Charles	Fire Marshal	St. Louis Fire Department	St. Louis	MO
Craggy	Thomas	Safety Manager	County of Morris	Morristown	NJ
Craig	Forrest	Fire Marshal	Novato Fire Protection District	Novato	CA
Crenshaw	Lance	Fire Marshal	Guthrie Fire Department	Guthrie	OK
Cronauer	Charles	Asst. Chief	Maryland Fire Marshal Office	Hagerstown	MD
Cummins	Daryl	Fire Safety Inspector	Florence Crane Correctional	Coldwater	MI
Cuneo	Edward	Fire Chief	Chesterfield Township Fire	New Baltimore	MI
Currie	Randy			Topeka	KS
Dahlman	Robert	Fire Marshal	Wayne Fire Department	Wayne	MI
Dale Brox	Wayne	Prof. Engineer	Bacon Donaldson	Richmond	BC

continued on the following pages

New Members continued from the previous page

Last Name	First Name	Title	Organization	City	State
Dautel	Wolfgang		Baffin Reg Fire Marshal	Cape Dorset	NT
Davidson	Willie	Fire Prevention Officer	Wyoming Fire Department	Wyoming	ON
Davis	George	Inspector	Sanford Fire Department	Sanford	ME
Decker	Ronald	Pres. Fire Investigator	Decker Neff Investigation Inc.	Dushore	PA
Dellonna	James	Assistant Fire Marshal	New Britain Fire Department	New Britain	CT
Denery	Wilfred	County Fire Coordinator	Oswego County Fire Services	Fulton	NY
Deuschle	Timothy	Fire Chief	Addison Fire Protection District 1	Addison	IL
Dio	Gerald	Fire Chief	Worcester Fire Department	Worcester	MA
Dobson	Michael	Fire Marshal	Sacramento Metro Fire District	Rancho Cordova	CA
Dodd	Scott	Fire Marshal	Arizona Public Services	Phoenix	AZ
Donovan	Donald	Chief Fire Protection Engineer	Delaware State Fire Marshals Office	Dover	DE
Dumberry	Stephane	Fire Prevention Tech	SAQ	Montreal	QB
Dupree	Doug	Fire Marshal	San Bernardino City of Fire Department	San Bernardino	LA
Ericksen	Keith	Manager	Rawhide Fire Hose, LLC	Orrville	OH
Farley	Jerald			Lake Forest Park	WA
Gluck	Charles	Battalion Chief	Watsonville Fire Department	Watsonville	CA
Guffey	William	Fire Lieutenant	District of Columbia Fire and EMS Department	Washington	DC
Haberek	John		LA County Fire Department Institutes	Sylmar	CA
Hayden	Thomas	Battalion Chief	Prince Georges County Fire / EMS Department	Landover Hills	MD
Herbert	David	Fire Marshal	Bureau of Fire Safety	East Brunswick	NJ
Hickenbottom	Paul	Fire Marshal	LaPorte Fire Prevention	LaPorte	TX
Hinton	Kenneth	CEO		Winton	SC
Holte	Blake	Officer	Springdale Fire Department	Springdale	AZ
Houle	Arthur	Plans Reviewer	Pascoag Fire District	Pascoag	RI
Hoyt	Gary	Fire Marshal	Carmel Fire Department	Carmel	IN
Hubele	Kurt	Fire Marshal	Richland Fire & Emergency Services	Richland	WA
Jones	Walter	Fire Marshal	Corpus Christi Fire Department	Corpus Christie	TX
Kalabi	Lofty		Sabtank	Jubail	
Kinney	Don		Little Rock Fire Department	Little Rock	AZ
Kleinheinz	Robert	Fire Marshal	Libertyville Fire Department	Libertyville	IL
Larson	Mark	Fire Marshal	Idaho State Fire Marshal	Boise	ID
Lengel	Richard	Fire Chief/ Marshal	Pottstown Fire Department	Pottstown	PA

continued on the following pages

New Members continued from the previous page

Last Name	First Name	Title	Organization	City	State
Lesniak	Richard	Fire Marshal	Springfield Township Fire Department	Glenside	PA
Maclean	Jakki	Fire Marshal	Yakima County	Yakima	WA
Markham	Harold	Fire Marshal	Ennis Fire Department	Ennis	TX
McBride	Mike	Inspector	Solution Safety	Wildomar	CA
McClenny	Kurt	Fire Marshal	Eagle Fire Department	Eagle	ID
Mixon	Carl	Fire Marshal	Bexar City Fire Marshal	San Antonio	TX
Morris	Tom	Fire Marshal	City of Hapeville Fire Department	Hapeville	GA
Moscato	Anthony	Fire Marshal	East Haven Fire Department	East Haven	CT
Mutchler	F. Tom	Fire Protection Specialist	Florida State Fire Marshal Office	Tallahassee	FL
Neal	Douglas	Fire Marshal	Schwenksville Fire Company	Schwenksville	PA
Nicholson	Eddie	Fire Inspector	Osage Beach Fire Protection District	Osage	MO
Nuttall	Steve	Fire Marshal	Bellevue Fire Department	Bellevue	WA
Oncay	Joseph	Fire Marshal	Gonzales, City of	Gonzales	CA
Parkers	Roger	Fire Marshal	South Metro Fire Rescue	Centennial	CO
Phillips	Ken		K. Phillips Fire Safety Equip.	Sydney	NS
Raynes	Rudy	Asst. State Fire Marshal	WV State Fire Marshals Office	Charleston	WV
Rehberg	George	Fire Marshal		Westbrook	CT
Rickenbaugh	Frank	Fire Official	Alpine Fire Department	Alpine	NJ
Romano	Christopher	Life Safety Code Specialist	New York State Dept. of Health	Bethpage	NY
Rovegno	Jeffery	Owner	Mr. Sprinkler Fire Protection	Roseville	CA
Sadler	Cary	Inspector	Madison Fire Department	Madison	AL
Sheehan	Michael	Trainer	Boston Fire Department	Boston	MA
Smart	Gary	Captain, Fire Prevention	Central Whidbey Fire Rescue	Coupeville	WA
Smith	Jerry	Fire Inspector	Panama City Beach	Panama City	FL
Staub	Gina	Fire Safety Inspector	Willoughby Fire Department	Solon	OH
Stilwell	Curtis	Assistant Fire Marshal	Arlington County Fire Department	Arlington	VA
Taylor	Pat	Fire Prevention Safety Inspector		Elephant Butte	NM
Thomas	Richard	Fire Marshal	Brooklawn Borough of	Gloucester City	NJ
Tinney	Chris	Fire Marshal	Holland Fire Department	Holland	MI
Tootle	Jason	Sole Proprietor	Southern Ag Service	Stateboro	GA
Waidelich	Steven			ocean Springs	MS
Weil	Mark	Asst. Chief of Fire Protection	NSA Fire Rescue Division	Naples	Italy
Wong	Andrew	Fire Prevention Captain	Vaughan Fire and Rescue Service	Vaughan	ONT
Wright	Bart	Fire Marshal	Ponce Inlet Fire Department	Ponce Inlet	FL
Young	Dave	Fire Investigator	Siskiyou County Sheriff	Yreka	CA

Guide on the Special Needs of People with Disabilities for Emergency Managers, Planners, and Responders Available

The National Organization on Disability (NOD) launched its Emergency Preparedness Initiative in the wake of the September 11th terrorist attacks. NOD recognized that people with disabilities have a great stake in the effectiveness of public programs aimed at preparing for and responding to all types of disasters.

The Emergency Preparedness Initiative has two main objectives. The first is to make sure that the special needs of people with disabilities are adequately addressed prior to an emergency, in order to minimize the adverse impact on them and their communities. This enables emergency responders to make informed decisions for the best use of available resources during emergencies. The second is to ensure that people with disabilities are included in the emergency planning process at

all levels of government and the private sector so they can offer their insights, knowledge, and resourcefulness. People with disabilities can contribute greatly to the effectiveness of local emergency management planning.

The NOD's Emergency Preparedness Initiative has designed a *Guide on the Special Needs of People with Disabilities for Emergency Managers, Planners and Responders* to be a tool for all of us to strive to incorporate the unique needs of people with disabilities into all our efforts. For additional information and to download a free copy, go to www.nod.org or National Organization on Disability, 910 Sixteenth Street, NW, Suite 600, Washington, DC 20006; phone (202) 293-5960; TDD (202) 293-5968; fax (202) 293-7999.

NFPA Codes and Standards Tentative Interim Amendments (TIAs)

A TIA is an emergency change to an NFPA code or standard that occurs between published editions of the document. A TIA is tentative because it has not been processed through the entire codes- and standards-making procedures. It is interim because it is effective only between editions of the document. A TIA automatically becomes a proposal of the

proponent for the next edition of the document. As such, it then is subject to all of the procedures of the codes- and standards-making process.

To review proposed or issued TIAs go to www.nfpa.org/Codes/tias_errata.asp.

Suggestions for Working with the AHJ

By Robert C. Sheldon, PE
The Austin Company
Cleveland, Ohio

Wouldn't it be great if we could just practice our profession without interruption. Just do the engineering, supervise the work and turn the system over to the Owner. Then pause for a moment to reflect on the work and feel that sense of accomplishment and pride that should accompany any well-performed work and energize us to look towards the next assignment. Unfortunately, laws require us to apply for construction permits, inspections and certificates of occupancy for new construction and alterations of fire protection systems. Our work requires review by the "authority having jurisdiction" (AHJ) during the design and construction. This permitting process can be an almost invisible fluid process or it can be like colliding with a brick wall so hard that it destroys our plans and requires an extensive recovery effort.

The object of this article is to provide suggestions for dealing with the process and the AHJ in a professional manner so that the process is less stressful, less time consuming and more productive. As a fire protection design professional there is a lot that you can do to aim your project down the smooth road and avoid hitting the brick wall including, but not limited to, the following suggestions:

1. Know and understand the rules and codes adopted by the jurisdiction. Own a copy of the local building and fire codes and understand them (both the administrative and technical portions). Local code information may be available on a city Web site. It doesn't hurt to call and verify any adopted codes or to inquire if there are any local amendments. Each jurisdiction is slightly different and the FPE needs to understand the local SOP. Knowledge is power. Know your responsibilities and the limited powers of the community and its officials. Know who is the authority having jurisdiction. Is it the mayor, building official, zoning official, fire chief, or fire marshal? In most jurisdictions the chief building official is responsible for approving all work involving new construction and renovations requiring a permit. The fire marshal is usually responsible for ensuring the maintenance of existing fire and life safety systems. Don't waste time going to the wrong authority. Your technical knowledge must be supplemented with knowledge of codes and the permitting system in order to ensure successful project design and construction progress and to protect your design and your client from unnecessary or uncoordinated requirements. You must take a hard look at all plan modification requests, regardless of whom they come from, to ensure that they enhance the design and don't destroy the intent/coordination of the code or design. Have exhaustive

knowledge of both your field and the review process. It is recommended that you become a certified code official (e.g., plans examiner, building inspector) yourself. Not only will you learn from the certification process, you will also gain additional respect for your efforts and knowledge.

2. Don't drop in on the AHJ without an appointment.

Appreciate that they have schedules, meetings, and inspections at appointed times. Dropping in may be unproductive for you, as the AHJ may be unavailable. Most AHJ offices keep regular limited phone and office hours. Find out what these hours are and plan your calls for those times.

3. Don't contact the AHJ without a reason for doing so.

Know why you need to see or talk to the AHJ. State why when you make your appointment. Don't waste their time or yours. Simple ordinary projects do not usually require meetings. Meetings may best expedite unusually complicated or high hazard projects. When it is obvious that a project will require direct communications with the AHJ, it may be best to make an appointment and meet the AHJ. Sometimes placing a face with a name can be beneficial in dealing with anyone. During your initial meeting, attempt to determine the AHJ's favorite or most effective means of communicating. Is it via office phone, cell phone, mail, e-mail, fax, face-to-face, in the office, or in the field? This will be helpful in making future contact.

4. Respect the AHJ. The building official or fire marshal has worked hard to achieve his or her position. Many are certified in assorted areas of code enforcement or plan review. Learn and recognize certifications such as CBO, MCO, CFPS, and so on. Many areas have code officials or fire marshals that are registered architects and engineers. If your plans examiner is not registered, his boss may be. And he probably has information that is vital to your project. After all, you are probably talking to him because you need his help and cooperation. Have a friendly and curious attitude that will invite the AHJs to become helpful project team members. Realize that you may be directed to various other governmental officials who may have additional concerns to share with you. As an example, the fire marshal may have concerns including fire apparatus access, firefighter safety, use of protection equipment, etc.

5. Don't ask the AHJ what he requires. You can expect some flow of information between yourself and the AHJ; but, generally speaking, it is your job to know the requirements. You are the engineer/consultant. The AHJ is only required to review your plans, not teach you how to design. If you have to ask, or if you submit plans that are flawed or clearly indicate that you have no knowledge of the local codes, you

continued on the following pages

Suggestions for Working with the AHJ continued from the previous page

will lose respect and be an embarrassment to the engineering profession. If you are practicing outside your ordinary geographical area you need to understand what codes are used locally and how to acquire them. As an alternate, you can subcontract to a local engineer/plans examiner/expediter to privately review your plans for local code compliance before submittal.

6. Don't submit incomplete, incompetent, sloppy, illegible, or difficult-to-understand applications, plans, calculations or specifications. This gives a poor first impression, raises immediate question of your competency and draws special plan scrutiny. This can grossly extend the review process and result in plan rejection. If they can't understand it they can't approve it. Plan rejections never help the project schedule or your reputation. Obtaining a peer review for complicated designs can assist in quality control before submission to the AHJ.

7. Involve your client in the permitting process. The client is usually the official applicant for permits and needs to understand the challenges and continuing responsibilities of all permits. If the project has any innovative, vague, questionable, or debatable code compliance issues; you should explain them to your client to determine how different official interpretations may affect the project. Decide with your client ahead of time which decisions will be unacceptable. What actions will the client want to take if AHJ doesn't find the desired plans acceptable? Are there alternate solutions or should you be prepared for an appeals process? Make sure that your client is not surprised by any discretionary decisions.

8. Recognize that the plan submittal, review, and approval process takes time. Make sure your client also understands this. Allow for it in your project schedule. Be prepared for it by completely understanding the local process. Know the limited authority of the local AHJ. Know when your plans will require approval by a higher authority or an appeal process and allow for the process in your project schedule. If you are looking for expediency you will have to follow the letter of the codes or the subjective opinion of the AHJ, regardless of the cost. Plan your project to avoid falling into the last minute rush where you might find yourself open to intimidation and losing control of your design plan. Regardless of good planning and the fact that your plans have been reviewed and permitted, it is not uncommon for permit or other design disputes to arise near the conclusion of a construction project. Do not be afraid to request a temporary occupancy permit to allow the project to continue while disputes are resolved or appealed. Most building codes allow for this, but the engineer needs to be aware of all local legal options to remain in control. I always try to

develop an agreement with the AHJ at the beginning of the review process that, should any last minute project dispute arise, I will request and he will provide a temporary occupancy permit. Such an understanding is important because many last minute disputes fall outside the immediate control of the AHJ or the FPE and are initiated by other political or private agencies for reasons that may not be completely truthful, clear, or ethical.

9. Send information to the AHJ ahead of any appointment if possible. Sending plans, code reviews, explanations, and so on, ahead of time gives the AHJ time to research any question and arrive at a more educated conclusion. This is not necessary if a meeting is scheduled to make a presentation where you will be providing the necessary materials in a presentation manner.

10. Help the AHJ expedite the plan examination. When you have an unusual project requiring innovative design or complicated code analysis, don't hold back helpful information from the AHJ. Lay out your plans to the AHJ with all of your decisions backed by codes. Carefully outline and completely prepare your code interpretations explaining how you intend to meet the required criteria. Provide concise analysis with documentation. Meetings should also be as well prepared, as if you had to do the whole thing by written correspondence (which is quite often the case with plan submittals). Lead the AHJ through your design and code analysis process so that he understands the project and doesn't have to start from scratch trying to understand where you are going. The AHJ isn't a mind reader and you need a permit. Good communications will expedite the process. Explain where design options exist and where and when you need his input or decisions. Provide possible solutions to vague or unusual situations and make recommendations to help the AHJ arrive at logical decisions. A good presentation leading and involving the AHJ gives the presenter credibility and incorporates the AHJ into the project team. With a little planning an immediate plan approval can often be achieved.

11. Gather all the AHJs together in one room to discuss the project. Where multiple agencies all participate in the review process, make every effort to get all of the required AHJs together at the same time and place so they all hear and learn the same thing. If the AHJ is the chief building official but he delegates his authority to others (such as a plans examiner or the fire marshal) request that he arrange joint meetings with all concerned parties. This ensures good communications and timely consensus. It also saves you from having to make multiple presentations.

continued on the following pages

Suggestions for Working with the AHJ continued from the previous page

12. Don't talk about "bending the rules" or "cutting me some slack". This is unethical and unprofessional.

Submit legitimate alternatives (e.g., performance based versus prescriptive) as permitted by most codes and be prepared to help the AHJ interpret/understand alternate code processes.

13. Don't try "trust me." It won't work. Build trust and respect with the AHJ through consistent, competent, cooperative, ethical, and professional behavior.

14. Stick to the book so that personal opinions cannot enter into the process. Strive to make your plans as objective as possible. If things become subjective, personal, or confrontational it may cause the AHJ to exceed his/her authority. This is not a good thing to have happen as it may not be correctable.

15. Keep written records of all meetings and agreements.

Distribute complete minutes, memos, or correspondence to all concerned persons. Include all names, dates, decisions, schedules, assumptions, actions, or other pertinent information. There is great power in the written word. Writing meeting minutes or a memo documents decisions that will facilitate a smooth process and permit later reference to decisions that have been made months, or perhaps years, prior to the construction/occupancy phase of the project. This can be very important if the AHJ person changes during the project.

16. Be prepared for the unexpected. There is a possibility that you will, unfortunately, find yourself facing some very unusual ethical and professional challenges. How do you respond when a client threatens or dismisses you for reporting a fire hazard to a public safety official? How do you respond when an AHJ unwittingly demands an action that is an obvious code violation but your client agrees to comply because he cannot afford an appeals process or project delay? What if there is no appeals process? What if graft is demanded for an occupancy permit? Nobody said it would be easy, but having a strong character helps. Preparation and honesty are always the best policy. Carefully report illegal or unethical activity, do not tolerate it. Develop your professionalism so that you are able to respond, not react.

17. Work to build rapport with your building officials.

This is particularly helpful if you work in a very small local area. Thank the AHJ for his help and cooperation. Don't expect or request special attention or favors from the AHJ. Offer your special field of expertise to help the AHJ train his staff in technical matters. Look for opportunities to train the AHJ staff in the field. Invite the

AHJ to attend SFPE Chapter meetings. Join local contractor and building officials organizations for their professional and social benefits. Use them to promote your profession. There is nothing wrong with competence or cooperation: - Lead the effort.

18. Be professional in all matters. This doesn't mean to be haughty or arrogant. You can be friendly, personable, helpful, and professional, without being an arrogant know-it-all engineer (as we are too often perceived by non-professionals). Your sales abilities or friendly persuasion skills can be as important as your engineering skills. Don't fail to polish them. It will serve you best if you never lose sight of the fact that registration as a professional engineer (recommended for all FPEs) carries some responsibilities. These include an obligation for conformance with all codes, laws, rules, and regulations (including ethics) of the state of registration and a duty to provide for the general safety of the public. You must also realize that, regardless of the permitting process, the engineer is ultimately responsible. So you must not lose control of your design. This is often requires a delicate balancing act, but it is just part of developing your overall image as a respectable professional.

In the fire protection industry, there is also another pseudo-AHJ with whom we usually interface, that is the client's insurer. The insurance company may have guidelines to follow in addition to local codes. It is important to make sure that your plans comply with building codes first before attempting to follow the insurance guidelines or advice. Legal codes always take precedence over private guidelines, and the two may not be harmonious. Insurance or other private guidelines can be helpful and serve as evidence of acceptable engineering practice where codes are incomplete.

You might think you're the world's best FPE; but if you can't get your plans permitted, constructed, and approved, are you really an FPE? The point is that an action plan for permitting needs to be considered and developed right along with the design plans. Is there anything unusual or complicated about your plan that might cause a permitting problem? How can you justify the design? Will the design require going to the permitting appeals level? When should you begin to bring the plans to the attention of the AHJ? What is the best way to present the plan for the best understanding and acceptance? How long will the process take? What are the alternatives or options? Does your client understand? These are all good questions that shouldn't wait until construction starts to get answered. Put yourself in the shoes of the AHJ early in the process so that you can envision the problems and arrive at solutions before there is a real problem.

The Authority Having Jurisdiction Knows Best, or How I Stopped Fire & Life Safety Progress Without Really Trying

From the Fire Marshals Association of Minnesota Web site

Why don't people put fire sprinklers in their homes? There are many reasons. Some of them are because of us, the local Fire Marshal, Chief, and Inspector. We beg people to install fire sprinklers but when the contractor comes in for the permit we make them jump through hoops above and beyond the code, and they charge the customer for it.

There is increasing awareness and demand for the installation of residential fire sprinkler systems. We know the benefits. It's like having a firefighter standing by 24 hours a day, seven days a week. The technology and codes have evolved to make this an easily affordable reality for many homeowners.

So why don't people sprinkler their homes? Lots of reasons, but mostly cost. Sometimes our lack of standardized application of NFPA 13-D discourages fire sprinkler contractors to invest in the residential fire sprinkler market. That uncertainty with code enforcement often makes the job frustrating and cost prohibitive for the contractor and homeowner.

We have seen the enemy, and it is us . . .

- *Code Interpretations.* We are used to commercial fire sprinkler systems. Sometimes we try to enforce those requirements on single family dwellings.
- *Lack of Communication Between Code Officials and Contractors.* Often contractors, because of uncertainty, include things above and beyond the code without even talking to the AHJ so they don't get caught short.

If we really want people to install fire sprinkler systems in their home, we must help make it available, easy, and

economical. This can be accomplished without compromising fire safety if we all work together.

Representatives of the Minnesota State Fire Chiefs Association, National Fire Sprinkler Association MN Chapter, and the Fire Marshals Association of Minnesota are meeting to discuss ways to encourage more installations of residential sprinkler systems. The focus is on removing or reducing barriers posed by regulation and enforcement. The following are some of the possible solutions:

- Don't require fire department connections
- Don't require sprinkler flow alarms
- Relax requirements for water meters
- Define appropriate, uniform, design standards
- Allow homeowner Installations in single family dwellings
- Provide other incentives through the codes

Watch for New State Fire Marshal's policy on residential sprinkler code interpretations in your association publications.

Be part of the Solution, not part of the Problem.

Support Affordable Residential Fire Sprinklers in Your Own Home and Community.

If you think this concept is really off the mark, maybe, you should look for your name in the FMAM Hall of Shame, <http://www.fmam.org/hallof1.htm>.

FMAM Home Page <http://www.fmam.org/index.html>.

Send mail to gmagdal@hopkinsmn.com with questions or comments about their Web site.

New York State Fire Marshals and Inspectors Association Holds Annual Meeting

By **Bill Timmons, 1st Vice President**

The New York State Fire Marshals and Inspectors Association held their annual conference and meeting at the New York State Fire Academy on October 1, 2, and 3, 2002. The conference attendees attended several training sessions. The highlight of the program was keynote speaker Harry Carter. Mr. Carter combined education and humor very well in his presentation.

During the annual meeting the following members were elected to lead the organization in 2003: President Bob Conlon from Westchester County; 1st VP Bill Timmons from Monroe County; 2nd VP/Treasurer Bruce Johnson from Suffolk County; and Secretary Robert Drexler from Monroe County.

When Is the 100th Anniversary?

Considerable effort has been expended thus far to develop a plan for the 100th anniversary. At this point, we want to share several things with you and encourage your input so we can flesh out the plan as soon and completely as possible.

On two occasions, NFPA and IFMA/FMANA documents have been examined at NFPA headquarters. Based on one NFPA document and two FMANA documents, it appears IFMA/FMANA should be celebrating its 100th anniversary in 2005 rather than 2006. One of those documents was written by one of the four founding fathers of the organization. Whichever the case, we would appreciate any information that may help resolve this question.

We are also seeking information regarding the following issues:

1. Any documents that tend to establish the official date, location, and founding fathers of the Fire Marshals Association of North America. Any information about existing ancestors of the founding fathers.
2. Lapel pins or other memorabilia with or without dates. At one time a Fire Marshal Section Chairman's lapel pin was created, however we have only seen a picture of one and it dates back to 1940-1941. In addition to the Fire Marshal Section Chairman's pin, we are aware of two FMANA and one IFMA lapel pins from the past 15 years and have examples of each.
3. Ideas of celebration events, methods of recognition, and presentation items.
4. Major accomplishments of the Association since it's beginning.
5. Meaningful memorabilia to commemorate the 100th anniversary.
6. Other suggestions that will make the 100th anniversary celebration more complete and meaningful.

7. Names of Association Executive Secretaries and the dates they served. We currently have the following information but need to fill in the blanks, verify the dates shown, and resolve any questions or conflicts:

Percy Bugbee 1930-June 1942
 Franklin H. Wentworth 1931-?
 Charles S. Morgan June 1942-May 1966 and
 October 1966-1967
 Rexford Wilson (Assistant Executive Secretary)
 1963-1966
 Rexford Wilson May 1966-September 1966
 Robert "Bob" W. Grant 1967-1973
 William K. Hurteau 1973-1975
 Ronald K. Melott 1976-June 3, 1977
 Robert W. "Skip" Smith June 6, 1977-1989
 Greg Kyte 1989-1991
 Ben Roy 1991-1998
 Steven Sawyer 1998-Present

8. The locations of the FMANA "offices" and the dates they were located in various places:

? 1905 or 1906-1930
 NFPA 1930-1967
 ? 1967-1977
 Washington 1977-1989
 ? 1989-1991
 Delaware 1991-1998
 NFPA 1998-Present

Please send your responses to Steven Sawyer, NFPA, 1 Batterymarch Park, Quincy, MA 02269; or John Robison, Alabama State Fire Marshal, 201 Monroe Street, Suite 1790, Montgomery, AL 36104.

Call for Members

The **Committee on Chimneys, Fireplaces, and Venting Systems for Heat-Producing Appliances** is seeking members in the interest categories of installer/maintainer, enforcing authority, and consumer. This Committee is responsible for NFPA 97, *Standard Glossary of Terms Relating to Chimneys, Vents, and Heat-Producing Appliances*, and NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances*.

The **Committee on Combustible Metals and Metal Dusts** is seeking members in all interest categories except manufacturer, special expert, and user. This Committee is responsible for NFPA 480, *Standard for the Storage, Handling, and Processing of Magnesium Solids and Powders*; NFPA 481, *Standard for the Production, Processing, Handling, and Storage of Titanium*; NFPA 482, *Standard for the Production, Processing, Handling, and Storage of Zirconium*; NFPA 484, *Standard for Combustible Metals, Metal Powders, and Metal Dusts*; NFPA 485, *Standard for the Storage, Handling, Processing, and Use of Lithium Metal*; and NFPA 651, *Standard for the Machining and Finishing of Aluminum and the Production and Handling of Aluminum Powders*.

The **Committee on Electronic Safety Equipment for Fire and Emergency Services** is seeking members in all interest categories.

The **Committee on Emergency Service Organization Risk Management** is seeking members in all interest categories except special expert. This Committee is responsible for NFPA 1201, *Standard for Developing Fire Protection Services for the Public*, and NFPA 1250, *Recommended Practice in Emergency Service Organization Risk Management*.

The **Committee on Fine Aerosol Extinguishing Technology** is seeking members in all interest categories.

The **Committee on Fire Marshal Professional Qualifications** is seeking members in all interest categories.

The **Committee on Fire Doors and Windows** is seeking members in all interest categories especially insurance and damper manufacturers. The Committee is responsible for NFPA 80, *Standard for Fire Doors and Fire Windows*; and NFPA 105, *Standard for the Installation of Smoke Door Assemblies*.

The **Committee on Fire Protection for Nuclear Facilities** is seeking members in all interest categories except special expert and user. This Committee is responsible for NFPA 801, *Standard for Fire Protection for Facilities Handling Radioactive Materials*; NFPA 804, *Standard for Fire Protection for Advanced Light Water Reactor Electric*

Generating Plants; and NFPA 805, *Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants*.

The **Committee on Fluidized Bed Boilers** is seeking members in all interest categories except manufacturer. This Committee is responsible for chapters in NFPA 85, *Boiler and Combustion Systems Hazards Code*.

The **Committee on Fundamentals of Combustion Systems Hazards** is seeking members in all interest categories except manufacturer. This Committee is responsible for chapters in NFPA 85, *Boiler and Combustion Systems Hazards Code*.

The **Committee on Garages and Parking Structures** is seeking members in all interest categories except manufacturer, special expert, and user. This Committee is responsible for NFPA 88A, *Standard for Parking Structures*.

The **Committee on Hazard and Risk of Contents and Furnishings** is seeking members in the interest categories of consumer, insurance, fire service, and education. This Committee is responsible for NFPA 555, *Guide on Methods for Evaluating Potential for Room Flashover*; and proposed NFPA 556, *Guide on Methods for Evaluating Fire Hazard and Fire Risk of Vehicular Furnishing*.

The **Committee on Hazardous Chemicals** is seeking members in all interest categories except manufacturer and special expert. This Committee is responsible for NFPA 40, *Standard for the Storage and Handling of Cellulose Nitrate Film*; NFPA 42, *Code for the Storage of Pyroxylin Plastic*; NFPA 430, *Code for the Storage of Liquid and Solid Oxidizers*; NFPA 432, *Code for the Storage of Organic Peroxide Formulations*; NFPA 434, *Code for the Storage of Pesticides*; NFPA 490, *Code for the Storage of Ammonium Nitrate*; and NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*.

The **Committee on Internal Combustion Engines** is seeking members in all interest categories except manufacturer, insurer, and special expert. This Committee is responsible for NFPA 37, *Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines*.

The **Committee on Liquid Fuel Burning Equipment** is seeking members in the interest categories of user and insurer. This Committee is responsible for NFPA 31, *Standard for the Installation of Oil-Burning Equipment*.

The **Committee on Manufacture of Organic Coatings** is seeking members in the interest categories of enforcing authority and insurer. This Committee is responsible for NFPA 35, *Standard for the Manufacture of Organic Coatings*.

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Call for Members continued from the previous page

The **Committee on Mining Facilities** is seeking new members in the user category, specifically the metal mining industry. This Committee is responsible for NFPA 120, *Standard for Coal Preparation Plants*; NFPA 121, *Standard on Fire Protection for Self-Propelled and Mobile Surface Mining Equipment*; NFPA 122, *Standard for Fire Prevention and Control in Underground Metal and Nonmetal Mines*; and NFPA 123, *Standard for Fire Prevention and Control in Underground Bituminous Coal Mines*.

The **Committee on Public Fire Educator Professional Qualifications** is seeking members in all interest categories except labor and user. This Committee is responsible for NFPA 1035, *Standard for Professional Qualifications for Public Fire and Life Safety Educator*.

The **Committee on Pulverized Fuel Systems** is seeking members in all interest categories except manufacturer and user. This Committee is responsible for chapters in NFPA 85, *Boiler and Combustion Systems Hazards Code*.

The **Committee on Racetrack Stables** is seeking members in all interest categories. This Committee is responsible for NFPA 150, *Standard on Fire Safety in Racetrack Stables*.

The **Committee on Single Burner Boilers** is seeking members in all interest categories except manufacturer. This Committee is responsible for chapters in NFPA 85, *Boiler and Combustion Systems Hazards Code*.

The **Committee on Solvent Extraction Plants** is seeking members in the interest categories of equipment manufacturer, insurer, and enforcing authority. This Committee is responsible for NFPA 36, *Standard for Solvent Extraction Plants*.

The **Committee on Stoker Operations** is seeking members in all interest categories except manufacturer and user. This Committee is responsible for chapters in NFPA 85, *Boiler and Combustion Systems Hazards Code*.

The **Committee on Wastewater Treatment Plants** is seeking members in all interest categories except manufacturer and special expert. This Committee is responsible for NFPA 820, *Standard for Fire Protection in Wastewater Treatment and Collection Facilities*.

The **Committee on Water Spray Fixed Systems** is seeking members in the enforcing authority interest category. This Committee is responsible for NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*.

Anyone interested in serving on one of these committees or on any NFPA technical committee can download a copy from NFPA's Web site at www.nfpa.org/Codes/TechnicalCommittees.asp or request a technical committee application form from Codes and Standards Administration, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Coming Events Calendar

February		April	
3-4	Emergency Service Organization Risk Management, Virginia Beach, VA	1	Boiler Combustion System Hazards—Fundamentals, Conference Call
6-8	Structural Fire Fighting Protective Clothing and Equipment, San Francisco, CA	2-3	NFPA Standards Council, Washington, DC
7-9	Fire Fighter Professional Qualifications, San Antonio, TX	14	Boiler Combustion System Hazards—Stoker Operations, Conference Call
11	Construction and Demolition, NFPA Headquarters, Quincy, MA	15	Boiler Combustion System Hazards—Pulverized Fuel Systems, Conference Call
14-15	IFMA Executive Board, Orlando, FL	24	Boiler Combustion System Hazards—Single Burner Boilers, Conference Call
21-23	Fire Service Organization and Deployment (Volunteer), San Diego, CA	27-May 2	NEC Technical Correlating Committee, Longboat Key, FL
23-March 2	NFPA Committee Week	29-30	Management Institute for Fire Marshals, Auburn Hills, MI
23-24	Venting Systems for Cooling Appliances	30	CFSI Dinner, Washington, DC
24	Task Groups on Aircraft Rescue and Fire Fighting	May	
25-26	Aircraft Rescue and Fire Fighting	5-7	Boiler Combustion System Hazards—Multiple Burner Boilers, Las Vegas, NV
25	Fire Tests	7-8	Boiler Combustion System Hazards—Fluidized Bed Boilers, Las Vegas, NV
26-27	Telecommunications	8-9	Boiler Combustion System Hazards—Heat Recovery Steam Systems, Las Vegas, NV
26-27	Hazard and Risk of Contents and Furnishings	13-15	Disaster/Emergency Management, San Diego, CA
27-28	Motor Vehicle and Highway Fire Protection	16-17	Marine Fire Fighting Vessels, San Pedro, CA
26	Northeastern Regional Fire Code Development Committee, Albany, NY	17-22	NFPA World Fire Safety Congress and Exposition, Dallas, TX
March		June	
3-5	Fire Service Organization and Deployment (Career), St. Petersburg Beach, FL	2-6	South Carolina Fire Marshals Association Annual Meeting, Myrtle Beach, SC
4-5	Western Regional Fire Code Development Committee, Tucson, AZ	September	
10-12	Laboratories Using Chemicals, Atlanta, GA	9-12	Michigan Fire Inspectors Society Annual Meeting, Lansing, MI
11-12	Southern Regional Fire Code Development Committee, San Antonio, TX	29-October 2	Principles of Fire Protection Engineering, Baltimore, MD
11-12	Aerosol Extinguishing Technology, NFPA Headquarters, Quincy, MA	30-October 2	New York State Fire Marshals and Inspectors Association Annual Meeting, Watkins Glen, NY
13-14	Emergency Medical Services, Las Vegas, NV	November	
18-19	Northcentral Regional Fire Code Development Committee, Chicago, IL	4-7	Tennessee Fire Safety Inspectors Association Annual Meeting, Murfreesboro, TN
18-21	Lightning Protection, Las Vegas, NV	15-19	IFMA Annual Conference and NFPA Educational Conference, Reno, NV
24-27	Management Institute for Fire Marshals, Chelan, WA		
24-27	Principles of Fire Protection Engineering, Las Vegas, NV		

Note: Bold items denote IFMA activities.

Committees Soliciting Proposals

The committees for the following documents are planning to begin preparation of their reports. In accordance with the Regulations Governing Committee Projects, committees are now accepting proposals for recommendations on content for the documents listed below. Proposals received by 5:00 p.m. ET on the closing date indicated will be acted on by the committee, and that action will be published in the committee's report. Proposals must be submitted to Codes and Standards Administration on proposal forms available in the back of all NFPA documents or from NFPA headquarters. (NOTE: For information on specific committee meeting dates, contact Codes and Standards Administration, NFPA.) Copies of **new document (P*)** drafts are available from Codes and Standards Administration, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, or they may be downloaded from NFPA's Web site at www.nfpa.org/Codes/Drafts.asp. If you need a current edition of a document, please contact NFPA, Fulfillment Center, 11 Tracy Drive, Avon, MA 02322, or call (800) 344-3555.

Document No./ Edition	Title	Proposal Closing Date	Meeting
NFPA 10–2002	<i>Standard for Portable Fire Extinguishers</i>	6/25/2004	F2005
NFPA 15–2001	<i>Standard for Water Spray Fixed Systems for Fire Protection</i>	12/31/2004	A2006
NFPA 59–2001	<i>Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)</i>	6/27/2003	F2004
NFPA 72®–2002	<i>National Fire Alarm Code®</i>	12/31/2004	A2006
NFPA 79–2002	<i>Electrical Standard for Industrial Machinery</i>	6/25/2004	F2005
NFPA 99–2002	<i>Standard for Health Care Facilities</i>	6/27/2003	F2004
NFPA 99B–2002	<i>Standard for Hypobaric Facilities</i>	6/27/2003	F2004
NFPA 110–2002	<i>Standard for Emergency and Standby Power Systems</i>	6/27/2003	F2004
NFPA 111–2001	<i>Standard on Stored Electrical Energy Emergency and Standby Power Systems</i>	6/27/2003	F2004
NFPA 284–P*	<i>Standard Test Method for Mattresses for Correctional Occupancies</i>	1/5/2004	A2005
NFPA 850–2000	<i>Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations</i>	6/27/2003	F2004
NFPA 851–2000	<i>Recommended Practice for Fire Protection for Hydroelectric Generating Plants</i>	6/27/2003	F2004
NFPA 909–2001	<i>Code for the Protection of Cultural Resources</i>	6/27/2003	F2004
NFPA 914–2001	<i>Code for Fire Protection of Historic Structures</i>	6/27/2003	F2004
NFPA 1221–2002	<i>Standard for the Installation, Maintenance, and Use of Public Emergency Service Communications Systems</i>	1/5/2004	A2005
NFPA 1982–1998	<i>Standard on Personal Alert Safety Systems (PASS)</i>	6/25/2004	F2005

P* Proposed NEW drafts may be downloaded from NFPA's Web site at www.nfpa.org/Codes/Drafts.asp. They are also available from NFPA Codes and Standards Administration, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Fire Talk: News for You

In 2002, UL began publishing *Fire Talk*, a complimentary quarterly newsletter produced by UL's Fire Protection Division. This publication serves an audience that includes authorities having jurisdiction (AHJs), government officials, and others in the fire safety and protection industries by keeping them informed of the latest developments and advancements in the world of UL fire testing.

This newsletter not only provides the most current news, information, and industry updates, but also supplies pertinent answers on the ever-changing state of the fire risk environment.

There is no easy right or wrong when it comes to fire protection. With the proper education, however, a more logical understanding of fire phenomena can be achieved.

If you would like to be placed on a complimentary subscription list to receive *Fire Talk*, please contact Doug Schultz by fax, (847) 407-1265, or by e-mail, DouglasSchultz@us.ul.com.

If you would like to review previous issues of this publication, please visit www.ul.com/firetalk.

Automatic Sprinkler Testing

For over fifty years, Underwriters Laboratories Inc. has been offering a service that evaluates the condition and operation of automatic fire sprinklers installed in the field and the testing done under this program meets the requirements outlined in the NFPA 25, *Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems*.

In recent years, UL has received approximately 5000 sprinklers from over 400 locations in North America on an annual basis. These sprinklers are generally submitted to UL by sprinkler contractors, building owners, and insurance companies.

Fire sprinklers sampled from field installations are provided to UL on a daily basis. The samples are visually inspected for leakage, mechanical damage, evidence of painting, external

loading, and corrosion before being subjected to a sensitivity oven heat test that investigates the operation characteristics of the sprinkler. The operation test is conducted in accordance with the UL Standard for Safety, UL 199, *Automatic Sprinklers for Fire Protection Service*.

The results of UL's evaluation are provided in a report that identifies the following:

1. Installation location
2. The condition of the sprinkler
3. A description of the sprinkler's operating characteristics

For information on sprinkler submittals or questions about UL's Field Sample Testing Program for sprinklers, contact Scott Dankert at Scott.S.Dankert@us.ul.com or by phone, (847) 664-2678.

Candle Fires in the Home

The following material is taken from NFPA's special information data package on candle fires. For more information on candle fires including statistics on fires in other occupancies and published incident descriptions of candle fires or to request a complimentary copy of the complete package, contact Nancy Schwartz at osds@nfpa.org or call (617) 984-7450.

An estimated 15,040 home candle fires caused 102 deaths, 1,473 injuries and \$278.0 million in damage.

During 1999, an estimated 15,040 home fires started by candles were reported to public fire departments. (Homes include dwellings, duplexes, manufactured housing and apartments.) These fires resulted in an estimated 102 civilian deaths, 1,473 civilian injuries, and an estimated direct property loss of \$278.0 million.

Candle fires accounted for an estimated 4.1% of all reported home fires, 3.6% of the civilian home fire deaths, 9.3% of the civilian home fire injuries, and 5.7% of the direct property damage in reported home fires during 1999.

Home candle fires and casualties hit 20-year high in 1999.

More reported home fires were started by candles in 1999 than in any of the 19 previous years. These fires jumped 20% from the previous high of 12,540 in 1998. In 1980 (the first year of available data), candles started an estimated 8,240 home fires. These fires generally declined in the 1980s and fell to a low of 5,460 in 1990. However, these fires increased 12% from 1993 to 1994, and went up 17–18% each year in 1995, 1996, and 1997, and 8% from 1997 to 1998.

Deaths from home candle fires fell 35% from the record high of 157 in 1998.

Civilian injuries jumped 33% from 1,106 in 1998 to an estimated 1,473 in 1999. This was the highest injury total seen in the 20 years of data.

Direct property damage from home candle fires, unadjusted for inflation, rose 58% from an estimated \$176.1 million in 1998 to \$278.0 million in 1999, another high.

Changes in NFIRS pose opportunities and challenges in describing and tracking the problem.

The statistics in this report are national estimates derived from the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS) in combination with NFPA's annual fire department survey. State agencies and local fire departments began implementing NFIRS Version 5.0 in 1999. Data that was collected in an earlier version was converted to Version 5.0. Some conversions were straightforward and many data elements stayed fairly stable. In other sections, logic and definitions changed significantly, making it harder to track trends. In Version 4.1, candles were identified by form of heat of ignition code 44. In Version 5.0, candles are identified by heat source

code 66, and the conversion is direct. In the past, the ignition factor code was used to describe cause. Version 5.0 has a broad cause category that specifies intentional, unintentional, act of nature, equipment or heat source failure, unclassified, and unknown. Version 4.1's incendiary and suspicious fires convert to intentional. Ignition factors such as "asleep" or "impaired" convert to human factors contributing to ignition. Most other ignition factors convert to factors contributing to ignition, now a field allowing one, two, or no entries. Detailed information about NFIRS, including Version 4.1 and 5.0 codes and conversion tables, can be obtained from <http://www.usfa.fema.gov/>. Earlier versions of this analysis have included five-year annual averages. Because of the changes, it was not practical to do so in this report.

The share of home structure fires started by candles is growing.

Partly because total home fires have declined and partly because candle fires have increased, the share of fires started by candles tripled from 1.1% in the early 1980s to 4.1% in 1999. Reported home fires from all causes were actually at their second lowest point in 20 years in 1999.

National Candle Association reports a thriving industry.

According to the National Candle Association (NCA), retail candle sales in the United States are estimated at \$2.3 billion per year. There are more than 350 commercial, religious, and institutional manufacturers of candles in the United States, and a typical manufacturer offers between 1,000 and 2,000 varieties of candles. The NCA reports that candles are used in seven out of ten households in this country, that 96% of candle purchases are made by women, and that roughly 35% of the candle business is seasonal around the Christmas holiday. Forty-two percent of the candle users said they most often burned candles in the living room, 18% used candles most frequently in the kitchen, and 13% most commonly used them in the bedroom.*

What do we know about candle fires in the home?

The following statistics are extracted from 1999 data. Because much of the data was collected in the older format and converted to the current standard, some anomalies may have resulted from the conversion process.

Where do candle fires start?

- 40% of these fires started in bedrooms;
- 19% started in common rooms, living rooms, family rooms, or dens;
- 13% started in bathrooms;
- 8% began in kitchens; and
- 4% started in dining rooms.

Fifty-three percent of the deaths resulted from fires that started in the living room, family room, or den.

continued on the following pages

Candle Fires in the Home continued from the previous page

How do they start?

This question sounds deceptively simple, but pieces of the answer can be found in multiple variables. Ninety-three percent of the home candle fires were unintentional, 2% were intentional, and 2% resulted from the failure of the equipment or heat source. That could refer to a holder or the candle itself.

Thirty-eight percent (38%) of the home candle fires in 1999 occurred when candles were left unattended, abandoned or inadequately controlled. Twenty-three percent (23%) started when some form of combustible material either was left or came too close to the candle. Eight percent of the incidents were caused by people playing with candles.

“Human factors contributing to ignition” is a new field in NFIRS 5.0. In 13% of the home candle fires originally documented in 5.0, the occupants were asleep when the fire occurred.

What do candles ignite?

- Mattresses or bedding were first ignited in 13% of these fires;
- Cabinetry was the first item ignited in 9% of these incidents;
- Curtains, blinds, or drapes were ignited first in 7% of these fires;
- Interior wall coverings were ignited first 7% of the time;
- Upholstered furniture was ignited first in 6% of the fires;
- Clothing (not being worn at the time) was also ignited first in 4%;
- Linen other than bedding (towels, tablecloths, etc.) was first ignited in 4%;
- Magazines, newspapers, and writing paper were first ignited 4% of the time; and
- Decorations were first ignited in 4% of the fires.

How big is the candle problem in terms of the different materials ignited?

*The U.S. Home Product Report, 1994–1998: Forms and Types of Materials First Ignited in Fires*** provides information on the frequency of different forms of heat of ignition in fires involving different kinds of materials.

Candles provided the heat of ignition in:

- 45% of the decoration fires;
- 20% of the curtain and drape fires;
- 15% of the cabinetry fires;
- 15% of the book fires;
- 10% of the linen other than bedding (towels, tablecloths, etc.) fires;
- 5% of the mattress and bedding fires;
- 5% of the floor covering fires;
- 4% of the upholstered furniture fires;
- 4% of the interior wall covering fires; and
- 3% of the box and bag fires.

Flame damage from home candle fires was confined to the room of origin in four-fifths of fires.

In almost one out of four fires, the damage was confined to the object of origin. In more than half, damage extended beyond the original object but was confined to the room of origin. Flame damage extended beyond the room of origin in only one of every five incidents.

When do candle fires occur?

December was the peak month for home candle fires with almost twice (14%) the average number of incidents. Christmas was the peak day, with an estimated 200, or 1.3%, of the 15,040 home candle fires in 1999. (If all days had an equal share of the fires, the daily share would be $1/365 = 0.3\%$. The actual Christmas share was nearly five times the baseline rate.) Ten percent of the home structure fires on Christmas 1999 were started by candles. New Year’s Day ranked second with 150 home candle fires and Christmas Eve ranked third with 130 such incidents. Home candle fires overall were more frequent in the winter months than in spring, summer, or fall.

Home candle fires were more common on weekends. Saturday was the peak day, and Sunday was a close second, with both days accounting for 17% of the fires. Friday ranked third.

The period from 6:01 to 9:00 p.m. was the peak period for home candle fires. The period from 9:01 p.m. to midnight ranked second, and the interval from 3:01 to 6:00 p.m. ranked third. The smallest share of these fires occurred between 6:01 and 9:00 a.m.

December candle fires follow a somewhat different pattern.

Although bedrooms were the leading areas of origin for home candle fires all year, this pattern is not as strong in December. From January through November, 42% of the candle fires started in bedrooms. Only 29% of the December candle fires started there. In December, 27% of the home candle fires started in living rooms or dens, compared to 18% during the rest of the year. The percentage of candle fires beginning in the dining room (10%) was three times the 3% during the rest of the year.

Decorations for special events were the leading forms of material first ignited in December. During the rest of year, decorations ranked fifteenth. This is consistent with the industry pattern of seasonal business. It also indicates that seasonal candle fires often involve combustible seasonal decorations that would not have been present at other times of the year. In other words, the heightened candle fire risk around the Christmas and New Year’s holidays reflects a combination of increased candle use and a more combustible environment around those candles.

continued on the next page

Candle Fires in the Home continued from the previous page

Candles used for light caused a number of serious fires. NFPA's Fire Incident Data Organization (FIDO) provides more detail on certain fires. While the collection is not complete or representative, information is available through FIDO that is not available through NFIRS. In 1997 and 1998, a clipping service was asked to notify NFPA of all fatal fires in the United States. Additional information on the causes and circumstances was sought from fire departments. Sixty-eight fatal home candle fires during this time were identified. Some of these fires killed more than one person. These incidents were reviewed to determine the role of power problems in candle fire fatalities.

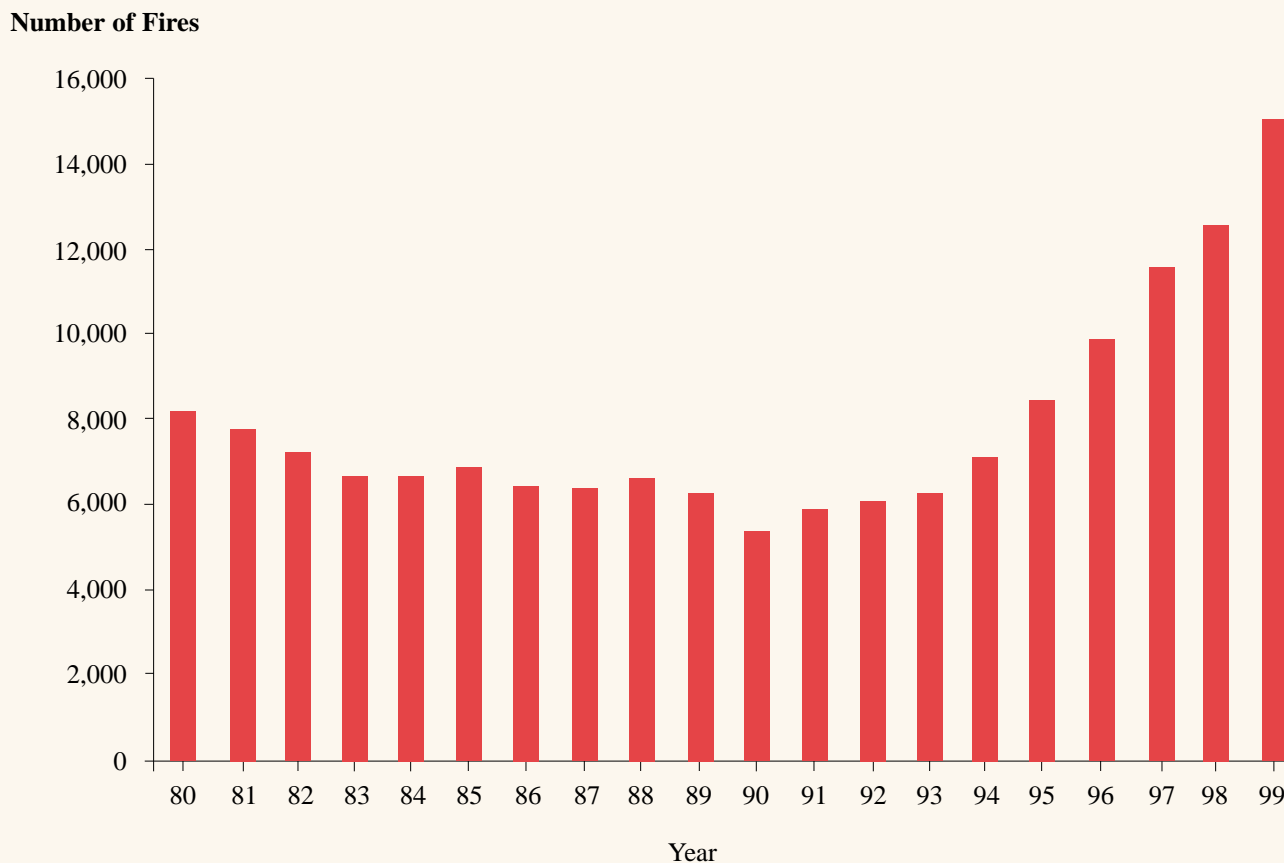
According to reports from the fire service, fire investigators, or the newspapers, the power had been shut off in 16, or 24%, of the fatal fires. In five cases (7%), candles were used during a

temporary power outage. In another case, a blown fuse caused the victim to believe her power had been shut off for non-payment as she couldn't remember paying the bill, and in one case, no explanation was given for the lack of power. Adding these incidents together, a lack of electrical power was a factor in 23, or one-third, of the fatal home candle fires in this group.

* Information was found at the National Candle Association's Web site, <http://www.candles.org/CandleIndustry/index.htm> on December 9, 2002.

**Kimberly D. Rohr, *U.S. Home Product Report, 1994-1998: Forms and Types of Materials First Ignited in Fires*, Quincy, MA: NFPA, Fire Analysis and Research Division, December 2001.

Home Candle Fires by Year



Source: National estimates based on NFIRS and NFPA survey.

One-Stop Data Shop: Your Source for Fire Statistics

The One-Stop Data Shop produces over five dozen reports. Most contain national estimates of specific aspects of the fire problem. These estimates are derived from NFPA's annual fire department experience survey and the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS). Many of the reports are available free to the fire service in appreciation of their contributions. NFPA members may also download most reports for free. Some reports include sample incident descriptions. A detailed order listing can be downloaded from <http://www.nfpa.org/PDF/OneStopData2002.pdf?src=nfpa>.

Overall Fire Statistics

Fire loss in the United States in 2001*
 U.S. fire problem overview*
 (includes occupancy data)
 Multiple-death fires*
 Large-loss fires*

Fire Service

Firefighter fatalities*
 Firefighter injuries*
 U.S. fire department profile*

Causal Factors

Arson*
 Candles*
 Fireworks*
 Smoking materials*
 Children playing with fire*
 Home heating equipment
 Home cooking equipment
 Home appliances and equipment
 Home forms and types of material ignited
 Torches

Fire Protection

Smoke alarms*
 Sprinklers*

Victim Patterns

Socioeconomic factors*
 Home fire casualties by age and sex*
 Burns, toxic gases and other hazards
 Security bars

Specific Occupancies

Schools
 Nursing homes
 Health care
 Manufactured homes
 Prisons and jails
 Refineries
 Service stations
 Tank farms
 Religious or funeral properties
 Dormitories, fraternities, and sororities
 Vacant, idle, under construction
 High rise buildings—hotel, apartments, and offices

Other

Fire death patterns by state*
 Fire experience by region*
 International*
 Total cost of fire
 Vehicle fires
 Computers
 LP-Gas
 Wood shingle or wood shake roof

*FREE to the fire service.

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