

ASSOCIATION

FIRE MARSHALS QUARTERLY



FIRE MARSHALS ASSOCIATION OF NORTH AMERICA • October 1995

F M A N A

PROVIDING NATIONAL LEADERSHIP FOR FIRE MARSHALS SINCE 1906

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Coming Events

(For more information on any of these events, contact the appropriate sponsoring organization or FMANA Executive Secretary Ben Roy.)

October

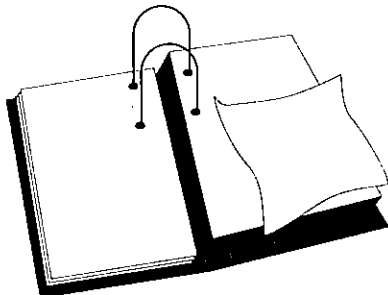
- 3 NFPA Regional Meeting, Montreal, PQ, Canada
- 8-14 National Fire Prevention Week (Theme: "Watch What You Heat: Prevent Home Fires!")
- 9-13 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Braintree, MA
- 13-14 NFPA Standards Council Meeting, Pittsburgh, PA
- 16-20 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Minneapolis, MN
- 23-27 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Portland, OR
- 24 NFPA Regional Meeting, Philadelphia, PA
- 30-11/3 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, San Diego, CA

November

- 6-10 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Denver, CO
- 12-15 NFPA Fall Meeting, Chicago, IL (Theme: "Fire Safety Through Technology: Past, Present, Future")
- 12 FMANA Executive Board Meeting, Chicago, IL
- 13 FMANA Business Meeting, Chicago, IL

December

- 4-8 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Atlanta, GA
- 11-15 NFPA Continuing Education Seminars: Life Safety Code, Sprinkler Systems, and Fire Alarm Systems, Orlando, FL



FMANA Membership: Tell a Friend!

Do you have friends or professional colleagues who might benefit by becoming a member of the Fire Marshals Association of North America?

Please remind them that FMANA is an organization of professionally oriented people with the goal of minimizing loss of life and property by fire through education in fire prevention fundamentals, enforcement of fire laws, investigation of fire causes, and regulation of fire hazards.

As you know, FMANA members are required to be members of the National Fire Protection Association. The NFPA annual dues (\$95) cover your FMANA membership.

For more information, write:

Executive Secretary Ben Roy
FMANA
1 Batterymarch Park
Quincy, MA 02269-9101
or call (617) 984-7424

Reginald Penney Elected FMANA President

Reginald (Reg) Penney was elected president of the Fire Marshals Association of North America during the Association's annual business meeting, May 22, 1995, in Denver. Reg is a district commander with Palm Beach County, FL, Fire-Rescue and is a long-time member of the FMANA Executive Board.

Other officers elected include Wade Schaefer, State Fire Marshal of Michigan (first vice president); and Robert Melton, Fire Marshal of Dallas (second vice president). Rocco Gabriele, State Fire Marshal of Maryland, assumed the position of past president.

Davis Parsons, Fire Marshal for Los Angeles, was re-elected for a two year term on the Executive Board. Newly elected members of the board are: John Robison, State Fire Marshal of Alabama (two-year term), and James Crawford, Fire Marshal of Portland, OR, (one-year term, filling the unexpired term of Robert Melton).

These are the leaders of your Association for the coming year. They will do an excellent job with your participation and support.

From the President's Desk

by Reg Penney, FMANA President



I would first like to thank Rocco Gabriele for the outstanding and professional leadership he has provided to the association as president for the past two years. It will make my tenure as president much more challenging and I know that he will be still working with and for us in the future. I would also like to welcome two new members to our Executive Board: Jim Crawford, Fire Marshal of Portland, OR, and John Robison, Alabama State Fire Marshal.

Last May's NFPA Annual Meeting in Denver provided attendees with an example of the professionalism and dedication of the members of the FMANA and the other members of NFPA Member Sections.

On Sunday, May 21, FMANA co-sponsored a "Standards Needs Assessment" program which was very well attended. On Monday, the business meeting of the Association and the Codes and Standards Forum were informative and well attended. Bob Melton, Fire Marshal of Dallas, did an outstanding job of moderating all of these sessions.

On Tuesday, FMANA and the Education and Fire Service Sections jointly sponsored a forum on "Residential Sprinkler Systems." Dave Hilton, the new Fire Marshal for the State of Georgia, represented our association. This forum was "standing room only." One comment I heard was, "This should have been presented before a local government body proposing to adopt a residential sprinkler system ordinance, and the community would have passed the ordinance after hearing the discussion."

FMANA, the NFPA, and the fire service community will always face new challenges. These challenges are more opportunities for you and this association to demonstrate strong leadership.

I would like to thank my fellow association officers, the Executive Board members, and the membership for their support. I look forward to working with all of you. I also want to thank NFPA President George Miller and the NFPA staff for their assistance and support. A special thanks to our hard-working Executive Secretary Ben Roy and his wife Sharon. Thank you so much for everything you have done.

Until the next *Quarterly*, or until we get to meet, I thank you for your support, dedication, and service to our organization.

FMANA Representative Needed!

The NFPA Technical Committee on Solvent Extraction Plants is in need of one or two qualified representatives from the fire service or from FMANA.

The scope of this Technical Committee is as follows: "The Committee shall have primary responsibility for documents on safeguarding against the fire and explosion hazards associated with the design, construction, and operation of solvent extraction plants."

The Committee is responsible for NFPA 36, *Standard for Solvent Extraction Plants*.

For information, contact FMANA Executive Secretary Ben Roy.

Have You Got a Story to Tell?

The Fire Marshals Association of North America is looking for a few good writers! We're trying to make the *Quarterly* a more member-oriented newsletter and we'd like to hear from you. In an effort to encourage more participation among Section members, we're offering a free FMANA golf shirt to anyone who submits an article that is printed in the *Quarterly*. How can you lose? Please send all submissions to Ben Roy, Executive Secretary, P.O. Box 600, Smyrna, DE 19977.

Executive Secretary's Corner

by Ben Roy



Congratulations to newly elected President Reg Penney as well as the other officers and members of the FMANA Executive Board. These officers represent you in the day to day decision-making regarding FMANA activities and need your input and support. You will find an in-depth article regarding the election in this edition.

Your Association has been extremely busy since the last edition of the *Quarterly*. Let me give you a brief update on some of these activities:

NFPA Annual Meeting - We conducted the Codes & Standards Forum, co-sponsored a "Standards Needs Assessment" program with the Fire Service Section, jointly sponsored with the Fire Service and Educational Sections-a forum on "Residential Sprinkler Systems," and conducted the FMANA Annual Business Meeting.

Fire Protection Institutes - We held one-week offerings of "Principles of Fire Protection Engineering" in Baltimore, MD and Reno, NV. In addition we have established two additional sites for 1996.

Chapters - The FMANA Executive Board met with Chapter Representatives at NFPA headquarters to develop strategies to provide closer relationships between the Chapters and FMANA. Additionally, a Board Representative has visited and participated in the Alberta and Michigan Chapter annual meetings.

Executive Board - Two Executive Board meetings have been held.

Master Plan - The master plan has been reviewed and updated by the Planning Committee.

Urban Fire Marshals - A two-and-one-half day Urban Fire Marshals Forum, with 19 major city/county fire marshals in attendance, was held at NFPA headquarters.

State/Provincial Fire Marshals - A two-and-one-half day State & Provincial Fire Marshals Forum, sponsored by NFPA was also held at NFPA headquarters.

We continue to receive extremely interesting articles from our members. You will find elsewhere in this edition a request for you to submit articles for publication. No doubt each member has an interesting story or unique event that has occurred. This is your opportunity to share your story or event with other members. We can take any format of 3.5 inch diskette but to ensure accuracy, please be sure to provide hard copy along with the diskette.

I want to apologize to all of you have ordered FMANA products and have been delayed in receiving them. We thought we had everything in place to provide a reasonable turn-around of orders. However, our supplier could not produce on a timely basis. Hopefully, we have corrected this problem. Thank you for your patience.

Finally, we hope you can join us at the NFPA Fall Meeting in Chicago. We will have interesting and informative sessions.

Got a Question?

Who to call at the NFPA's Public Fire Protection Division:

Gary Tokle, Assistant Vice President, (617) 984-7490

Carl Peterson, Assistant Director, (617) 984-7485
(apparatus and equipment, fire reporting)

Bill Baden, (617) 984-7484
(forestry, urban and wild land interface)

Jon Jones, (617) 984-7483
(professional qualifications, EMS)

Bruce Teele, (617) 984-7482
(protective clothing and equipment, fireboats)

Chuck Smeby, (617) 984-7420
(hazmats and training, NBFSPQ)

Stephen Foley, (617) 984-7481
(Fire Department Occupational Health & Safety, public fire service organization)

Ben Roy, (617) 984-7424
(Fire Marshals Association of North America)

Staff in the Public Fire Protection division are responsible for more than 80 NFPA codes and standards and four NFPA Member Sections.

State Fire Marshals in the News

Alaska

Craig Goodrich has been named State Fire Marshal and director of the Division of Fire Prevention.

Commissioner Ronald Otte said, "Craig Goodrich has more than 23 years in the fire service with many years on the Anchorage Fire Department. He is committed to working with the administration and the community to protect Alaskans from fire. He recognizes the issues to be faced and is enthusiastic about this administration."

SFM Goodrich has served 12 years on the executive board for IAFF, Local #1264, six years as a principal officer, a representative to the Western Fire Training Directors, the Alaska Fire Chiefs Association, and Urban Area Director for the Federal Emergency Management Agency's "Community Volunteer Fire Prevention" program.

He spent the last six years on the staff of the Anchorage Fire Chiefs, serving as the director of safety and training. His duties included planning, research, and program development, as well as, assuming the duties of the chief of operations when necessary.

Delaware

The Automatic Fire Alarm Association (AFAA) honored Delaware State Fire Marshal Daniel Kiley with its "Man of the Year" award during the NFPA Annual Meeting in Denver. The AFAA is a national non-profit organization dedicated to fostering and improving standards in the fire detection and alarm industry.

Mr. Kiley was instrumental in the development of Senate Bill 250, signed into law on July 8, 1993, which requires owners of all residential occupancies to install smoke detectors. The law calls for the installation of battery powered smoke detection devices in existing one- and two-family dwellings, modular homes,

mobile homes, and townhouses. Any newly constructed residential occupancy of the same types would have to have the smoke detection devices wired into the building's electrical service, so that if one detector sounded, all of the detectors would sound.

Under Mr. Kiley's leadership, the State Fire Marshal's Office, in conjunction with the Delaware State Fire Prevention Commission and the Delaware State Fire School, mounted an aggressive public education program in 1993 about the smoke detector law.

In 1994, Mr. Kiley spearheaded the effort leading to the adoption of regulations requiring certification by examination of individuals involved in the design, installation and service of the first line of defense, fire detection and alarm signaling systems and automatic fire suppression systems. Included in the process is the licensing of companies that engage in these industries and utilizing NICET exams.

Idaho

Don McCoy has been named as Idaho State Fire Marshal, succeeding Lee Bright, who recently retired. Mr. McCoy has been employed as a Deputy State Fire Marshal since 1989.

Mr. McCoy, 48, has more than 20 years experience in fire prevention. He began his career in 1968 and has served as assistant chief and chief of the Hailey Volunteer Fire Department. He also was the building and fire inspector for the city of Hailey for 11 years. During his tenure with the State Fire Marshal's office, he has completed more than 60 fire investigations, as well as many inspections and plan reviews.

The Idaho State Fire Marshal's office consists of three prevention deputies, three investigation deputies, a computer coordinator, and a secretary. The agency inspects buildings, assists with fire code

interpretations, reviews, inspects, and approves the installation of fire sprinkler systems, develops training classes and training materials, investigates fires, and collects state fire statistics.

Nevada

Raymond Edward Blehm, Jr., 50, of Carson City, NV, fire marshal for the state of Nevada since 1991, died on April 18, 1995, of a heart attack.

Mr. Blehm's many accomplishments include: the implementation of the Burn Reporting Act; the development of a state-wide fire incident reporting system; the start-up of the accelerant dog arson detection program in the state office; the AB194 allowance for the state fire marshal to delegate functions of the office to local government units; the Nevada State Emergency Response Committee and the legislative studies in hazmats response programs; the development of hazmats training programs; and the revitalization of the Nevada International Association of Arson Investigators.

Mr. Blehm was a member of NFPA, FMANA, the National Association of State Fire Marshals, International Conference of Building Officials, Western Fire Chiefs, International Fire Chiefs, International Association of Arson Investigators, and numerous Nevada fire organizations.

Mr. Blehm was a dedicated public servant and will be missed by the members of the fire service, his friends, and family.

New York

James Burns of Verplanck has been named state fire administrator and Daniel Caffrey of Ossining has been named deputy state fire administrator in the Department of State's Office of Fire Prevention Control (OFPC). The positions were vacated by the April 1, 1995, retirement of Francis McGarry and Frank Stefanelli.

A volunteer firefighter for more than 34 years, Mr. Burns currently serves in the Verplanck Fire Department. In 1990, he was elected chairman of the Board of Fire Commissioners for the Verplanck Fire District. In the past, he has served the district as fire chief, president and secretary. He is a member and past president of the Westchester County Volunteer Firemen's Association, the Westchester County Fire Chief's Association and the Hudson Valley Volunteer Firemen's Association.

He is also a member of the Westchester County Fire Advisory Board; the Firemen's Association of the State of New York, where he presently serves as president of the Board of Trustees of the Firemen's Home in Hudson; the New York State Association of Fire Chiefs; the Columbia, Sullivan and Greene County Volunteer Firemen's Association; the Westchester County Association of Fire Districts; and the New York State Association of Fire Districts.

Daniel Caffrey spent 22 years working in the New York City Fire Department. He achieved the rank of lieutenant in 1973 and captain in 1983. During his tenure, he served as a first line supervisor; created, coordinated, and trained personnel in effective life-saving procedures associated with emergency response; enforced municipal, state, and federal codes relating to fire safety; and trained personnel in fire suppression and search and rescue strategy. He received seven citations for heroic actions with the Department, including the "New York City Fire Commissioner Citation of Unique and Extraordinary Commitment to the Fire Department of the City of New York."

Mr. Caffrey was educated in the City University of New York Fire Science Program, the Westchester Community College Fire Science Program and John Jay College Criminal Justice Fire Science Program. He completed several courses at the New York City Fire

Department Training Center, and has taken numerous courses and training programs relating to fire prevention, fire suppression, arson investigation, hazardous material handling, and personnel management.

West Virginia

West Virginia State Fire Marshal Walter Smittle, III, received the NFPA's Standards Medal during the Association's Annual Meeting last May in Denver. The Standards Medal, the highest honor bestowed by the NFPA's Standards Council, is presented in recognition of outstanding contributions to fire safety-in the development of standards prepared by NFPA technical committees. Mr. Smittle is the tenth person to receive the award.

A long-time member of NFPA and a member of the Standards Council from 1987-92, Mr. Smittle is a past president and life member of FMANA. He currently chairs the Fire Prevention Code Committee, and serves on the Safety to Life and Safety to Life Fundamentals committees, and has served on the Safety to Life Residential Occupancies and Fire Safety Symbols committees.

Wyoming

Jim Noel has been named Wyoming State Fire Marshal and will lead the Department of Fire Prevention and Electrical Safety. He most recently served as chief of the Laramie (WY) Fire Department.

Mr. Noel joined the Laramie Fire Department in 1972. He worked his way up through the ranks and was promoted to chief in May 1988. He holds a master's degree in public administration from the University of Wyoming, a bachelor's of science degree in fire service administration from Western Oregon State College, and an associate's degree in fire science from Laramie County Community College. He has also completed the Executive Fire Officer Program at the National Fire Academy in Emmitsburg, MD.

Helping Kids Cope with Fire

New Free Coloring Book in English and Spanish Features Sparky® the Fire Dog

Together with the NFPA, the American Red Cross has developed a 20-page coloring book designed to gently help children through the emotional distress that can follow a fire experience.

Reviewed by American Red Cross mental health professionals experienced in working with children's disaster-related anxieties and NFPA education experts whose acclaimed educational materials are used worldwide, *After a Fire Coloring Book* is available in both English and Spanish.

"This effort will go a long way in helping children who are forced to deal personally with the tragedy of fire," says NFPA President George Miller. "It is particularly useful as an educational tool for a multicultural audience." *After a Fire Coloring Book* uses NFPA's mascot, Sparky® the Fire Dog, to communicate important information that helps children deal with a fire event.

"Often when families are displaced by fire, children suffer emotional distress. While their parents are busy trying to recover from their losses, children are trying to understand what happened and how to deal with their concerns," says Rocky Lopes of American Red Cross Disaster Services.

The coloring books are designed to provide follow-up support for children who have experienced a fire. They are not intended to be used as a fire safety education or preparedness program. Both the NFPA and the Red Cross have a variety of educational materials designed to educate preschoolers through adults.

The NFPA Standards-Making System

by Jon Jones, Sr., former NFPA Senior Fire Service Specialist
(Second of a three-part series.)

The article published in the last edition of the newsletter discussed the NFPA standards system in general. In this article, I will review the development of committee reports.

The NFPA standards system is one of the most open systems in the business and, in fact, has become a model for many systems internationally. To allow for the broadest possible review of Association documents, the Regulations Governing Committee Projects has established a processing cycle of just over 100 weeks. During this cycle, public input is solicited three times during the Public Proposal Period, the Public Comment Periods, and at the Annual or Fall meeting of the Association.

As described in the last article, the development of NFPA documents is the job of a technical committee made up of volunteer technical experts in the specific area addressed by the document. As the committee progresses with its work, specific input regarding its documents is provided through proposals and comments from the interested public. Thus, while the technical committee has the responsibility for the development of the requirements for a specific document, it must also solicit and respond to input from interested parties outside of the committee. Association regulations require that all proposals and comments received be reviewed and acted upon by the committee. The work of the committee and its action regarding this public input is then reported to the Association and other interested parties. This reporting takes place twice during the 100 week standards cycle. The first report is the Report on Proposals and the second is the Report on Comments.

The Report on Proposals (ROP) is published after a six month proposal period required for all documents scheduled for revision in a specific cycle (i.e. Annual 1996). Each committee with document scheduled for Association action during a specific cycle must meet shortly after the last day for the submission of proposals (proposal closing date) and act on each public proposal received for the document. The committee must also develop proposals to address specific changes it, as a committee, are proposing. All changes to any Association document are made using the proposal process. At a ROP meeting, each public and committee proposal is discussed and acted upon by the committee. The committee may accept a proposal in its entirety, reject a proposal, or modify proposed material and accept it in part or in principle. For any action other than "accept" the committee must develop a statement, preferably technical in nature, that explains the committee's reason for not accepting the proposed change. The statement must be sufficiently detailed so that the committee's rationale is clearly communicated and its action may be rebutted during the comment period.

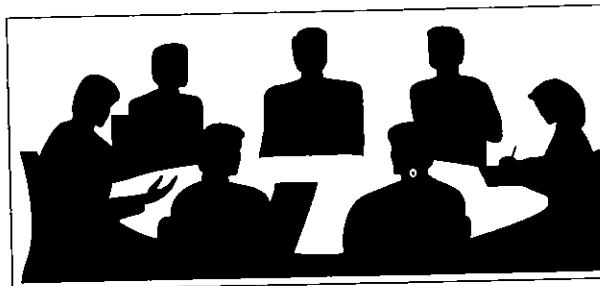
After the ROP meeting, each committee member receives a letter ballot regarding the action on each proposal received along with each committee statement. At least two-thirds of the voting membership of the committee must agree with the actions for the report to be accepted. If the committee ballot is successful, the committee's report is included in the ROP for the selected adoption

cycle. The Committee Report is made up of a committee list, the text of each public and committee proposal related to the document, the action the committee took on the proposal, the committee statement, if provided, and the results of the committee letter ballot.

The Report on Proposals, is thus a collection of committee reports that describe the changes proposed for each NFPA document scheduled for action in a specific processing cycle. The ROP is the Association's method of communicating changes proposed for its documents to the fire protection community and interested public. Each ROP contains several committee reports and may be very lengthy. It is recommended that you review the contents of the ROP when it is received and select only those reports that you are interested in. By reviewing a report, you should be able to determine what requirements are being considered for change in existing documents and the proposed text of proposed new documents.

Based on your review of a Committee Report, you may determine that a committee has included material that you disagree with. The NFPA Standards System allows anyone to provide comments on documents that are in the process of being adopted or modified within the system. The process for the submission of a public comment is simple. When an ROP is published, a 60-day comment period is established. During this period, anyone may use the forms provided in the ROP to comment on material that a committee intends to modify as part of a proposal. Provisions contained in existing documents that are not changed by a public or committee proposal are not open to public comment.

The completed comments are submitted to the Association as directed



on the form. Each comment received is then distributed to the appropriate Technical Committee for review. Shortly after the comment period closes, technical committees that have received public comments meet to review and act on the comments and develop the committee's Report on Comments. This purpose of ROC meeting is very similar to the process used to develop the ROP. The committee acts on each comment and develops a statement for each comment that is not accepted in its entirety. These actions and statements are again letter balloted. At least two-thirds of the voting membership of the committee must agree with the actions for the report to be accepted. If the committee ballot is successful, the committee's report is included in the ROC. The information in this report is again very similar to that contained in the ROP. The ROC is then published by the Association and distributed approximately six weeks prior to the Association membership meeting that will act on the documents proposed for adoption.

The reports on proposals and comments developed by NFPA Technical Committees are the Association's method of communicating vital information regarding changes to the National Fire Codes to the fire protection community and other interested parties. They are provided at no cost to individuals who submit proposals or comments, and any interested party who asks to receive them. They can be requested from NFPA Customer Service at (800) 344-3555.

The two reports are a critical part of the NFPA Standards Making System. They provide our membership and the public with the opportunity to review and participate in the development of the documents that make up the National Fire Codes.

In the next issue, this series will be concluded with a discussion on the development of proposals and comments.

Report on NFPA's Performance-Based Initiatives Available

by Milosh Puchovsky, PE, NFPA Fire Protection Engineer

Over the past several years, there has been much talk within the fire protection community about the concept of performance-based design and its mainstream application. Most of our existing fire safety codes and standards are described as being "prescriptive-based." These types of documents provide fire safety by prescribing a combination of specific requirements such as construction materials or limiting dimensions or protection systems, but do not reference how these requirements achieve a fire safety goal. In most cases, a quantifiable fire safety goal is not specifically identified.

As a result, the appropriateness of the fire safety solution cannot be properly evaluated or measured. It is argued that this approach acts as a barrier to trade and commerce by unnecessarily limiting design options and increasing construction costs.

"Performance-based" approaches are presented as a possible solution to the shortcomings associated with prescriptive-based methods. These methods are based more upon science and technology rather than empiricism, experience, and judgment. The intent is to provide a fire safety solution which achieves specific fire safety goals for a specific use or application. The design process relies heavily on the application of calculation methods and computer fire models. It is argued that this approach will bring fire safety to an optimal level. However, unlike prescriptive methods, performance-based approaches have not undergone a level of standardization, and require a greater effort with regard to design and enforcement.

In an effort to better realize the benefits, a number of nations have taken major steps toward implementing performance-based design. For instance, the United Kingdom and New Zealand have recently revised their building codes to follow a performance-based format and are currently developing supporting documents.

Although considered to be a relatively new concept, various versions of performance-based design have been and are currently being attempted. Many codes and standards provide an option to develop alternative means of protection, provided the level of safety prescribed by the document is not lowered. However, all of the pieces needed to properly support the performance-based design process are not yet in place. As a result, a lower confidence level with these methods exists, a significant undertaking by both the designer and the enforcement authority is required, and the benefits intended by performance-based design have not been realized on a routine basis.

In 1993, the NFPA established an in-house task group to study this topic and to provide recommendations regarding how the Association might support performance-based design overall. The task group suggests developing a system that would allow codes and standards to be supplemented with formalized performance-based provisions. This would give the option of using either method. Additionally, the task group believes that the formalized performance-based provisions would fill an existing void, better support the associated enforcement process and improve the transfer of technology.

For a free copy of the task group report, write to Milosh Puchovsky at NFPA headquarters.

Performance-Based Codes and Standards: Friend or Foe?

by Charles Kime
(Second of a series)

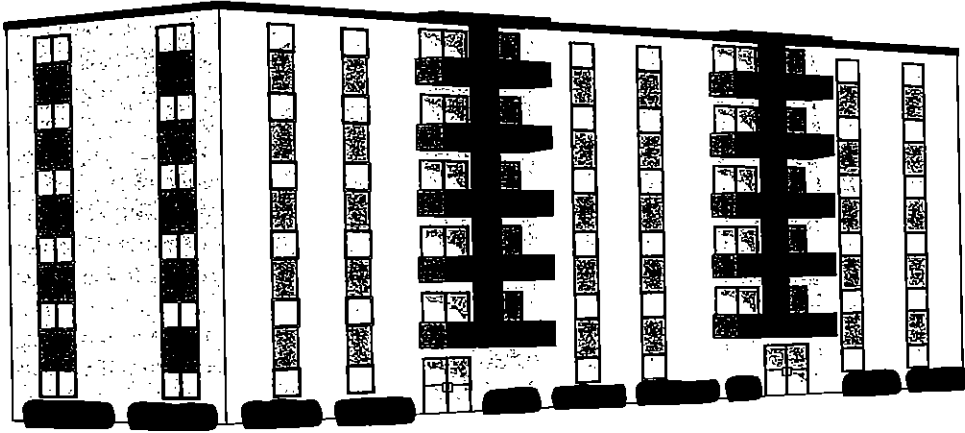
In the last issue of the Quarterly, we discussed some of the issues being deliberated about performance-based codes. We established a working definition for performance-based codes as those which describe desired outcomes. These outcomes are measurable and they may be measured either empirically or by scientific calculation (usually through the use of computer models).

We also examined the question, "Why performance-based codes?" The overriding response to this question continues to be summed up in one word - "flexibility." We discussed the advantages of using alternative building materials and the acceptance of standards adopted by other countries. We also considered the flexibility the fire marshal will have in meeting the needs of the community to maintain reasonable levels of risk and also help the development community meet their goals.

There are a plethora of players in the United States system. They include the business community, developers and contractors, regulators, codes and standards publishers, citizens, and others. It is helpful if we try to understand who some of these players are and the role they play in the process. First, we will review the players in the system and briefly describe their role. Then we will examine what players a performance-based code system might need and the role they might play.

Today's Players Business

The business community often gets overlooked in the discussion. After all, it is usually a business (sometimes government) which decides to build or remodel its facility. Typically, a business wants to build a facility which meets its needs to be competitive and maximizes its capital investment. Businesses want to take advantage of the latest technology, especially when those technologies reduce costs. Performance-based codes provide the flexibility to design and build to an



agreed upon standard of performance and take advantage of the newest materials and design techniques.

Professionals

The professionals are primarily the architects, engineers, and construction managers who have earned a college diploma in their chosen field. Many are certified by professional associations or state registration agencies. Professional engineers and architects usually are required to "stamp" their work. The stamp identifies them as the professional who is held legally responsible for the work and provides reasonable assurance that they conducted themselves and completed their work within the standards which have been adopted by their profession.

Construction workers

The construction industry has a variety of players: carpenters, electricians, automatic fire sprinkler fitters, fire alarm installers, etc. Many construction workers have a vast amount of education and experience in their specific field. Some have completed apprenticeship programs in their union, some learned their trade in technical or trade schools, and some simply learned the trade on the job. Although the training and certification of construction workers is not as consistent as it is for the professional groups, it is

important to remember these are the workers who have to use the new materials and build to the new designs. In short, they have to take the design idea from a piece of paper and build something that will work and produce the desired result.

Government

Regulators/Enforcers

This group includes fire marshals, building officials, plans reviewers, inspectors, and regulators from other agencies. This is an interesting collection of highly talented people; many of who have professional degrees. They have PEs (professional engineers registered in their state), architects, ex-construction workers, political scientists, public administrators, certified technicians, and those who learned it all on the job (some from the back step or tiller bucket).

Private Sector Regulators

Private sector regulators contract with business or government to perform the duties which would otherwise be the responsibility of government. Some

state, county, or city jurisdictions contract with a private company to conduct all of their plan reviews. Others hire someone from the private sector only if they get too far behind. There are professional engineers who are hired to conduct complex inspections during construction because the building inspectors either do not have the time to conduct the inspection or do not have the training necessary to conduct a thorough inspection.

Testing Laboratories

Testing laboratories are used to test and certify that materials or products meet the design criteria established by the manufacturer or that the product or construction assembly will perform in accordance with the criteria in specific codes and standards. They certify, label, approve, or otherwise identify that what they have tested will perform to the specifications of the manufacturer or designer. These players are typically professional and scientists.

Codes and Standards Publishers

This group includes NFPA, each of the model building code groups, the federal government, ANSI, and others who publish standards used by the design community. Participation in these groups varies. The NFPA process is a consensus process which allows everyone an opportunity to participate in the standards-making process. You must be a member to vote but membership is open to anyone who has an interest in any of the codes and standards.

The building and fire code groups tend to be more of a closed shop. Participation is open to a wide variety of interested parties, however voting is reserved for building and fire officials who represent government jurisdictions. ANSI standards have to meet strict consensus criteria. There is opportunity to participate in the adoption of many of the federal regulations.

Consultants

Consultants have a wide range of expertise and experience. Many consultants are well educated and professional while some are trained and certified technicians. Some consultants were previously employed as building officials, fire marshals, or inspectors and now operate their own business. Consultants offer such a wide range of services it is impossible to make general comments about them as a group.

Citizens

Employees, business customers, neighbors, and taxpayers make up this group. This group tends to be forgotten in the debate about codes and standards. Sometimes we forget that the codes and standards generally are required for the good of the public. After all, it is the citizens who ultimately pay. They may pay more for goods and services if the codes and standards are too stringent or they are arbitrarily enforced. On the other hand, reasonable codes and standards provide safety for the public good.

Performance-Based Code Players

The players in a performance-based code system are not much different than the players in the system we have today. Each of the groups we have talked about will continue to be a stakeholder in the performance-based system. However, we will need to adjust the type of participation from each group. We will have a greater need for fire protection engineers. Computer modeling technicians will be more critical to the decision making process.

We will have to go to school to keep up with the new technology. Our plans reviewers and field inspectors will be required to learn new skills so they can serve the needs of our customers. There will be a more significant role for the private sector in the plans review and the field inspections business.

Businesses will continue to command the use of the latest building technology as they struggle to stay competitive; not just in the domestic market, but in the global market. Citizens will continue to expect us to provide for the public good without raising taxes or inflating the cost of goods and services.

Testing laboratories might find a change in the way they do business as the fire protection engineering discipline begins to mature and establishes its credibility to use mathematical models and computer models to produce predictable outcomes for unique scenarios. Construction workers will be working more closely with design professionals, engineers, and certified technicians. Consultants will have more work in the performance-based system than they have now but the work will be of a different nature.

Scary? Maybe, but it doesn't have to be. Will it be different? Yes! It will mean change. Change in the way we do business. Change in the relationships we have with other disciplines. Change in the expectations others have of our ability to serve their needs. New challenges for us to maintain reasonable levels of safety for the public good. Impossible? No!

We need to remember that with change comes opportunity. Opportunities to make things better, to discard the unworkable, to improve status and credibility, and to become more integrated into the process and become a more important player. An opportunity to achieve better, more effective, fire and environmentally safe communities.

In the next issue, we will look at the expanded role we might see for the private sector, how fire protection engineering will become a more valuable asset, and how the role of the fire marshal and their staff might be affected.

CODES AND STANDARDS INFORMATION UPDATE

Technical Committee Meeting Calendar

Many of you have asked that we include a calendar of Technical Committee meetings in the *Quarterly*. We are pleased to include this important addition. You are encouraged to attend these meetings to learn more about the NFPA's codes and standards making process. If you wish to address a Technical Committee on a specific subject, you should make your request in writing to the Committee Chair or Staff Liaison at least 21 days before the meeting (the 21-day notice may be waived by the Chair). Please contact the FMANA Executive Secretary or the Technical Committee Staff Liaison for specific meeting locations.

October

- 2-3 Dry and Wet Chemical Extinguishing Systems, Las Vegas, NV
- 3-5 Public Fire Service Communications, Windsor Locks, CT
- 12-13 Cultural Resources, Shelburne, VT
- 13-14 Liquefied Petroleum Gases, NFPA Headquarters, Quincy, MA
- 26-29 Fire Service Occupational Safety and Health, Falls Church, VA

November

- 6-7 Multiple Burner Boilers, New Orleans, LA
- 13-14 T/G of NFPA 20 and NFPA 70, New Orleans, LA
- 16-17 T/G Automatic Sprinklers, San Diego, CA
- 30-Dec 1 Fire Pumps, Salt Lake City, UT

December

- 4-6 Water Mist Fire Suppression Systems, Phoenix, AZ
- 4-9 National Fire Alarm Code, Orlando, FL

1996 January

- 30-Feb 1 National Fire Alarm Code, Ontario, CA

1996 Annual Meeting Report on Proposals Now Available

If you would like a copy of the Report on Proposals (ROP) to be proposed for action at the 1996 NFPA Annual Meeting in Boston, May 20-23, 1996, please complete and return the coupon below.

This ROP was released on August 4, 1995, and contains the reports of all technical committees presenting material for action at the 1996 Annual Meeting. Recipients of the ROP may comment on the reports until October 13, 1995. Comments must be submitted during the comment period and will not be accepted at the meeting when the reports are acted on. There are forms for comment in the Reports.

Comments on these Reports should be submitted to the Secretary, Standards Council, in the form of proposed amendments, using the form(s) provided in the ROP and accompanied by supporting data.

Committee actions on all comments received will be published in the Report on Comments and available on request prior to the Annual Meeting. Anyone submitting comments will automatically receive a copy of the ROC.

Please send me:

___ 1996 Annual Meeting Report on Proposals
(1996 AM-ROP)

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Return the coupon to Customer Service, NFPA, 1
Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

PLEASE NOTE: Organization members of the NFPA, NFCSS (National Fire Code Subscription Service) subscribers, and members of NFPA committees having printed reports in the ROP will be sent the publication automatically and need not return this coupon.

Contents of the 1996 Annual Meeting Report On Proposals

P = Partial Revision; W = Withdrawal; R = Reconfirmation; N = New; C = Complete Revision

13	Installation of Sprinkler Systems	P
13D	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	P
13R	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	P
15	Water Spray Fixed Systems for Fire Protection	C
20	Installation of Centrifugal Fire Pumps	P
30	Flammable and Combustible Liquids Code	P
30A	Automotive and Marine Service Station Code	P
32	Drycleaning Plants	R
45	Fire Protection for Laboratories Using Chemicals	P
54	National Fuel Gas Code	P
72	National Fire Alarm Code	P
73	Residential Electrical Maintenance Code for One- and Two-Family Dwellings	P
80A	Protection of Buildings from Exterior Fire Exposures	P
90A	Air Conditioning and Ventilating Systems	P
90B	Warm Air Heating and Air Conditioning Systems	P
92A	Smoke-Control Systems	P
97	Chimneys, Vents, and Heat-Producing Appliances	P
170	Fire Safety Symbols	P
211	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances	P
214	Water-Cooling Towers	P
241	Safeguarding Construction, Alteration, and Demolition Operations	P
321	Classification of Flammable and Combustible Liquids	W
395	Flammable and Combustible Liquids at Farms and Isolated Sites	W
402	Aircraft Rescue and Fire Fighting Operations (Formerly NFPA 402M)	P
419	Master Planning Airport Water Supply Systems for Fire Protection	P
424	Airport/Community Emergency Planning (Formerly NFPA 424M)	P
482	Zirconium	C
495	Explosive Materials Code	P
498	Explosives Motor Vehicle Terminals	C
502	Limited Access Highways, Tunnels, Bridges, Elevated Roadways, and Air Right Structures	C
505	Powered Industrial Trucks Including Type Designations, Areas of Use, Maintenance, and Operation	P
555	Methods for Decreasing the Probability of Flashover	N
704	Identification of the Fire Hazards of Materials	P
750	Water Mist Fire Suppression Systems	N
903	Fire Reporting Property Survey Guide	C
904	Incident Follow-up Report Guide	C
1041	Fire Service Instructor Professional Qualifications	
1061	Professional Qualifications for Public Safety Telecommunicator	N
1126	Use of Pyrotechnics before a Proximate Audience	C
1141	Fire Protection in Planned Building Groups	C
1901	Automotive Fire Apparatus (Combining and Redesignating NFPA 1901, 1902, 1903, 1904)	C
1971	Protective Clothing for Structural Fire Fighting (Combining and Redesignating NFPA 1971, 1972, 1973, 1974)	C
8504	Atmospheric Fluidized-Bed Boiler Operation	P

Technical Committees Soliciting Proposals

The following committees are planning to begin preparation of their respective reports. In accordance with the Regulations Governing Committee Projects, committees are now accepting proposals for recommendations on content on the documents listed below. Proposals received by 5:00 PM (EST) 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 Arthur Cote, PE, Secretary, NFPA Standards Council, on proposal forms available from the NFPA Standards Administration Office.

(NOTE: For information on specific committee meeting dates, see the Committee Calendar printed in this issue of The Quarterly or call Standards Administration, NFPA.) Please note that for new documents, a draft copy of the new document will be available on which to submit proposals. Copies of new document drafts are available from the Standards Administration Office, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 88B-1991	Repair Garages	1/19/96
NFPA 130-1995	Fixed Guideway Transit Systems	1/19/96
NFPA 220-1995	Types of Building Construction	1/19/96
NFPA 221-1994	Fire Walls and Fire Barrier Walls	1/19/96
NFPA 270-P*	Determination of Specific Optical Density of Smoke	1/19/96
NFPA 328-1992	Flammable and Combustible Liquids and Gases in Manholes, Sewers, and Similar Underground Structures	1/15/96
NFPA 329-1992	Underground Releases of Flammable and Combustible Liquids	1/15/96
NFPA 497A-1992	Classification of Class I Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas	1/19/96
NFPA 497B-1991	Classification of Class II Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas	1/19/96
NFPA 497M-1991	Classification of Gases, Vapors, and Dusts for Electrical Equipment in Hazardous (Classified) Locations	1/19/96
NFPA 720-P*	Household Carbon Monoxide (CO) Warning Equipment	1/19/96
NFPA 721-P*	Fuel Gas Warning Equipment	1/19/96
NFPA 910-1991	Protection of Libraries and Library Collections	1/19/96
NFPA 911-1991	Protection of Museums and Museum Collections	1/19/96
NFPA 1500-1992	Fire Department Occupational Safety and Health Program	1/19/96
NFPA 1521-1992	Fire Department Safety Officer	1/19/96
NFPA 8501-1992	Single Burner Boiler Operation	1/17/96
NFPA 8503-1992	Pulverized Fuel Systems	1/17/96
NFPA 8505-1992	Stoker Operation	1/17/96

P* Proposed NEW drafts are available from the NFPA Standards Administration Department, P.O. Box 9101, 1 Batterymarch Park, Quincy, MA 02269-9101.

Evaluation of the Use of a Fire Door in a Floor Assembly

by Donald Belles, PE

A fire will aggressively seek upward paths through a building. The natural tendency of fire to spread upward dictates strong defenses be provided to prevent vertical spread. A successful fire protection strategy will limit fire to a single story.

Each story in a building is separated by a floor system. Floor systems are required to have the ability to remain in place under fire exposure, limiting the spread of flames. Exposed to a fire from below, floors must also prevent the transfer of sufficient heat (by conduction) to ignite combustibles which may be resting on the upper surface of the floor. Floor systems in multi-story buildings are typically required to prevent spread of fire for one to two hours by model codes. Specific requirements vary based upon building area, building height, occupancy, and fire department accessibility.

It would be preferable, from a fire protection standpoint, to have no openings in a fire rated floor system. However, openings in floors are necessary for many building services including elevators, stairways, air handling ducts, and electrical busways. Openings, where they are necessary, must be protected to maintain the inherent fire resisting capability of the floor. Typically, openings through floors are enclosed with fire rated shaft walls. The shaft walls are fire rated from both the occupied side of a story and the shaft wall side. For fire to spread from one story to a second story, a fire must first break through a shaft wall on the fire floor. For fire to spread onto a story not initially involved, the fire must penetrate the shaft wall a second time, transferring out of the shaft into the occupied portion of the story. Therefore, use of shaft wall enclosures for floor openings, provides a degree of conservatism, as a shaft enclosure provides redundant separation between stories.

Floor Fire Doors

Flush mounted floor doors are sometimes used in buildings for access between stories. For example, openings in fire rated floors are sometimes necessary to provide access to equipment. In many instances, a conventional shaft enclosure is not practical. Code officials and specifiers have identified a need for a fire rated floor door which adequately preserves the fire resistance rating of a floor system. At least one manufacturer is now marketing a fire rated floor door qualified by tests conducted per ASTM E152. Other manufacturers are in the process of developing products and obtaining listing with nationally recognized laboratories.

At the present time, a nationally recognized, consensus test method for evaluating floor fire doors does not exist. There are major differences in performance requirements for fire rated floors compared to fire doors. For example, ASTM E119 requires fire rated floor assemblies to prevent excessive temperature rise on the unexposed surface. Conversely, temperature rise is not limited by ASTM E152, the fire door test standard. Floor systems are critically important in the prevention of vertical fire spread. Should floor fire doors be tested to door or floor standards? This paper provides background information on fire testing of floors and of fire doors. Suggestions are included as to how floor fire doors might be evaluated.

Background

Floor systems are assigned hourly fire resistance ratings on the basis of fire tests conducted in accordance with ASTM E119 (NFPA 251, UBC Standard No. 7-1). Fire doors are evaluated in accordance with ASTM E152 (NFPA 252, UBC Standard No. 7-2). The manner in which floor systems are evaluated – horizontal mounting and subject to live loads – is quite different from the manner in which fire doors are evaluated. Fire doors are mounted in a vertical position in a “wall furnace.”

Both the ASTM E119 and E152 test procedures fail in some aspects to represent “real” fire exposures. For example, the furnaces for both procedures are operated under negative pressure. Furnace pressure is not likely to be a factor in the performance of floor systems having no openings, i.e. floor systems involving monolithic concrete slabs or composite systems like concrete on steel deck. On the other hand, a fire door’s performance may be significantly affected by a positive pressure, since openings exist between the door and the frame.

Model codes contain criteria for the protection of through penetrations of fire rated floor systems (see Standard Building Code, 1994 Edition, Section 705.4, Uniform Building Code, 1994 Edition, Section 714, and National Building Code, 1993 Edition, Section 707.7). According to model codes, fire tests for through penetration fire stops are required to be conducted in accordance with ASTM E119 or ASTM E814 with the furnace operating under minimum positive pressure of 0.01 in. of water column.

NFPA 80, *Standard for Fire Doors and Windows*, details how fire doors are to be installed. Section 11-3 deals with horizontal access doors. Paragraph 11-3.1 requires door assemblies in fire

rated floors to be evaluated in accordance with ASTM E119. A hose stream test is not required.

Model codes contain requirements for protection of openings in fire rated wall assemblies. It is common practice to use an opening protective device (fire door or fire damper) having a lesser fire rating than a wall. For example, 1 1/2 hour fire doors are typically used to protect openings in two hour walls. In such a case, the use of a 1 1/2 hour fire door is based on the assumption that clear space will be maintained on both sides of the door to accommodate normal traffic. It is presumed the clear space will result in a less intense fire exposure than the case where combustibles are piled directly against or near a door. Also, because of the clear space adjacent to doors, temperature rise limits are generally not set for the unexposed surface of fire doors. On the other hand, temperature rise limits are set for the unexposed wall surfaces as it is assumed combustibles will commonly be placed in contact with the wall.

Test Method Details

ASTM E119 - Floor systems are mounted horizontally and tested under a live load. Furnace pressure is not specified within the method and tests are generally performed with the furnace operating under slightly negative pressure. No hose stream test is required. For the fire rated time period desired, a floor system:

- must support a live load.
- must not ignite cotton waste on the unexposed (upper side) of the floor system
- must limit heat transfer to the unexposed (upper) surface of the floor so that average temperature rise on the unexposed surface of the floor system is less than 250°F with no single temperature measurement rising more than 325°F.
- must limit temperature rise in structural steel members.

ASTM E152 - Fire doors are mounted in a vertical position in a "wall" furnace. The pressure in the furnace is maintained "as nearly equal to the atmospheric pressure as possible." A hose stream test is required. For the rated time period desired, a fire door:

- must remain in the door opening with limitations stipulated on the amount of permissible warping.
- must withstand hose stream without developing through openings.

ASTM E152 does not treat flaming on the unexposed side of the door. However, UBC 7-2 and NFPA 252 both disallow any flaming on the unexposed side of the door for the first 30 min-

utes of the test. Intermittent "light flaming" thereafter is allowed. Additionally, although the temperature on the unexposed side of a fire door is monitored during tests, neither ASTM E152, UBC 7-2, nor NFPA 252 set temperature rise limits. However, temperature rise limits are specified for certain fire door installations within model codes.

Suggested Test Details

A "floor fire door" must preserve the fire resistance rating of the floor system in which it is installed. The fire resistance required for a door is dependent upon the floor system in which the door is to be used. For example, a two hour door would be suitable for installation in fire rated assemblies having up to two hours fire resistance. The performance of a floor door may vary, depending upon the floor assembly in which it is tested. Floor doors should be limited to the maximum size successfully tested. Finally, like all other fire doors, floor doors should be equipped with positive latching hardware and automatic or self-closing devices.

It is suggested floor fire doors be tested in a floor system representative of those in which the door will be used. Floor fire doors should be evaluated essentially using the procedures described in ASTM 119 for fire rated floor systems. A small scale horizontal furnace might be used. In summary, floor fire door testing should include the following:

- testing of the door in a floor system representative of that in which the door will be used.
- testing the floor door with clearances and other assembly detail representative of an actual installation.
- placing an appropriate live load on the floor door.
- subjecting the floor door to standard time temperature fire exposure conditions.
- operating the furnace at a minimum positive pressure of 0.01 in. of water column.
- to be judged successful, the floor fire door should withstand the specified fire exposure for the required time period without allowing any of the following:
 - an average temperature rise exceeding 250°F on the unexposed surface.
 - a temperature rise in excess of 325°F at any point on the unexposed surface.
 - ignition of cotton waste spread over the unexposed surface.
 - failure of the door to support the live load.

Recall Announcements

Toaster Recall

In cooperation with the U.S. Consumer Product Safety Commission (CPSC), the TEAL Corporation of Pine Brook, NJ, is voluntarily recalling 6,775 Model 8781 Hi-Speed Toasters. The toaster's heating unit may not turn off, presenting a potential fire hazard.

TEAL received 11 reports of the toaster overheating. In some instances, food items caught fire, and in one instance, a fire from the toaster caused damage to a kitchen.

The white plastic toasters measure approximately 14 inches long, 6 inches high, and 4.5 inches wide. The words "TEAL Hi-speed Thick 'n' Thin" appear on the side of the toaster. A dial with six control settings is located in the bottom right hand corner of the front of the toaster. Various retailers sold the toasters nationwide from June 1994 to December 1994.

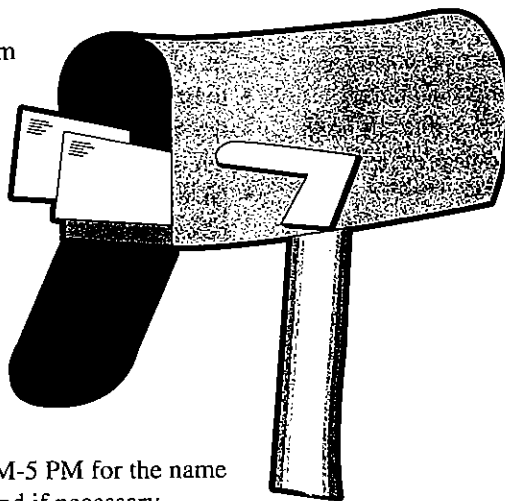
Consumers who own a toaster manufactured by TEFAL should disconnect it and check the model number located on a metal plate on the bottom of the toaster. Consumers who have a Model 8781 toaster should contact TEFAL at (800) 395-8325 to arrange for a replacement or refund. CPSC and TEFAL are not aware of injuries involving this product. This recall is being conducted to prevent the possibility of injury.

Gas Regulator Recall

In cooperation with the U.S. Consumer Product Safety Commission (CPSC), the National Highway Traffic Safety Administration, and Transport Canada, Marshall Gas Controls, a division of S.H. Leggett Company of San Marcos, TX, is recalling about 25,000 Marshall model 250 Automatic Changeover LP gas regulators. Some of these regulators may leak propane gas, which is highly flammable and could ignite.

The model 250 is an automatic changeover regulator used to regulate liquid petroleum gas pressure in conjunction with two LP-gas cylinders in certain residential, marine and recreational vehicle applications (i.e., travel trailers, campers and fifth-wheel units). Marshall manufactured the regulators from January 1994 to July 1994 and distributed them through recreational vehicle manufacturers, parts distributors, and retail liquid petroleum gas suppliers.

Warning: because liquid petroleum is highly flammable, consumers should not attempt to disconnect the regulator. Consumers who own regulators with date codes "4 94" through "30 94" in two small, raised circles on the back of the unit should call Marshall Gas Controls at (800) 396-1322 between 8 AM-5 PM for the name of local service center that will inspect, and if necessary, replace the regulator at no charge.



New ALARM Computer Software Available

The NFPA's "One-Stop Data Shop" is offering a new computer software product called ALARM, developed by the National Institute of Standards and Technology (NIST) in cooperation with the U.S. Public Health Service.

ALARM, which stands for Alternative Life Safety Analysis for Retrofit Cost Minimization, generates a set of alternative compliance strategies and each strategy's estimated cost, that meet the requirements NFPA 101, Life Safety Code®. The first version of ALARM, designated 1.0, is available for analyzing buildings with health care occupancies such as hospitals and nursing homes.

ALARM 1.0 runs on an MS-DOS™ personal computer with a 386 or higher microprocessor, a numeric co-processor, at least one high-density floppy diskette drive (3.5 or 5.25 inch), and MS-DOS version 5.0 or higher. At least 525 kilobytes of conventional memory must be available.

ALARM is available for \$8.96 (NFPA members) or \$9.95 (non-members). For information, call Nancy Schwartz at the NFPA's One-Stop Data Shop, 1 (617) 984-7450, or fax 1 (617) 984-7056

FMANA to Host Fire Protection Institutes

One of the goals of FMANA is to provide educational and professional development opportunities through technological programs.

The FMANA Fire Protection Institutes have been designed to provide information to the fire code enforcement official not readily available through other courses or seminars. Additionally, these courses are offered at the lowest possible cost.

The five-day course, "Principles of Fire Protection Engineering," (formerly known as the "Basic Course") was developed by John Bryan, Ed.D, retired chairman of the department of fire protection engineering at the University of Maryland. We are indeed fortunate to have a person of Dr. Bryan's stature involved in the development of our curriculum.

1996 offerings of "Principles of Fire Protection Engineering" are scheduled for Lansing, MI (January 8-12); Portland, OR (June 17-21); and, tentatively, Mobile, AL (July 15 - 19).

General Information

- Each session is restricted to 50 enrollees.
- The instructional staff for the Institutes will include Dr. John Bryan and Dr. James Milke of the Department of Fire Protection Engineering, University of Maryland.
- The fee for the Institutes is \$250 for members of NFPA or FMANA; \$295 for non-members. This registration fee covers the course and course materials only. Expenses associated with travel, lodging, and meals are not covered by the registration fee.

Topics for the "Principles of Fire Protection Engineering" Institute include:

- **Combustion and Ignition Phenomenon** – Theories of combustion, flame types, fire propagation. Suppression theory and application of suppression agents.
- **Fire Endurance Evaluation** – Design for protection of doors, windows, assemblies including walls, floors, and ceilings. Innovative methods.
- **Construction and Structural Features** – Compartmentalization. Design to restrict fire spread. Compartment involvement theory. Performance of basic material.
- **Materials Application** – Evaluation of furnishings, finishes, floor coverings. Fire spread, heat and smoke production, toxicity evaluation.
- **Life Risk Analysis** – Tenability limits, human behavior factors, attitudes vulnerability, inhibition-facilitation.
- **Fire Protection Design Evaluation** – Procedures for the evaluation of fire safety. Smoke control, air conditioning and ventilation systems. Logic diagram analysis.
- **Design of Water Suppression Systems** – Basic characteristics of system. Design for pipe schedule systems, hydraulically calculated and balanced systems.
- **Sprinkler System Developments** – Detector activated sprinkler systems, plastic pipe systems, quick response, extended coverage heads.
- **Egress and Exits** – Basic theoretical concepts, protection features, computation of egress components, design variables.



- **Detection and Alarm Systems** – Thermal, pressure, flame, smoke activation. Reliability, installation design characteristics.

Lansing, MI – January 8-12, 1996 Midway Hotel Lansing, MI

The Midway Hotel is easily accessible via Interstate Route I-96 and is within 10 minutes of the Capitol City International Airport. Arrangements have been made with the Midway Hotel to provide rooms at the special rate of \$45/day single or \$55/day double. The rate includes breakfast. Room reservations should be made directly with the hotel. NOTE: You must advise the hotel you are a part of the Michigan Fire Inspectors Society/FMANA group in order to secure the listed rates.

Midway Hotel
7711 W. Saginaw Highway
Lansing, MI 48917
Phone: (517) 627-8471

Portland, OR – June 17 -21, 1996

Classes will be held at the Portland Fire Department Training Center, located within blocks of Portland International Airport and I-205. Arrangements have been made with the Portland Airport Ramada Inn to provide rooms at the special rate of \$70/day single or double occupancy. Room reservations should be made directly with the hotel. NOTE: You must advise the hotel you are a part of the FMANA group in order to secure the listed rates.

Portland Airport Ramada Inn
6221 NE 82nd Avenue
Portland, OR 97220
Phone: (503) 255-6511

Mobile, AL - July 15-19, 1996

Final arrangements are still under way for this offering as this edition of the *Quarterly* goes to press. Please contact your Executive Secretary for more details!

FMANA Fire Protection Institute Registration Form

(Please print or type)

The registration fee for the five-day Institute program is \$250 for NFPA or FMANA members; \$295 for non-members. You can register now and we will bill you later (please include Purchase Order); or if you prefer, you can provide a \$50 deposit or the complete registration fee of \$250/\$295 with this form.

Name: _____
 Title: _____
 Organization: _____
 Address: _____
 City: _____ State: _____ ZIP: _____
 Work Telephone: _____
 Social Security #: _____

- Check if you are an NFPA Member - NFPA Membership #: _____
- Check if you are a FMANA Member
- Check if you are a Chapter Member - Name of Chapter _____

Please enroll me in:

Principles of Fire Protection Engineering

- 1/8 to 1/14, 1996 in Lansing, Michigan
- 6/17 to 6/21, 1996 in Portland, Oregon
- 7/15 to 7/19, 1996 in Mobile, Alabama (tentative)
- Please register me in the course I have selected and bill me later.
- Enclosed is a purchase order - P.O. number: _____

Enclosed is a check for the

- \$50 deposit
 - \$250 or \$295 registration fee
- Please make check payable to NFPA

Charge the

- \$50 deposit
- \$250 or
- \$295 registration fee to my credit card

MasterCard #: _____ Exp. Date: _____

VISA #: _____ Exp. Date: _____

The registration fee covers the course and course materials only. Expenses associated with travel, lodging, or meals are not covered by the registration fee.

Please mail to:

Ben Roy, Executive Secretary
 Dept. FPI
 Fire Marshals Association of North America
 P.O. Box 600, Smyrna, DE 19977-0600 USA
 (617) 984-7424 FAX: (302) 653-5712

Russ Sanders Joins NFPA Staff



Former Louisville (KY) Fire Chief Russell Sanders has been named NFPA's Midwest Regional Representative. He is responsible for managing NFPA activities in 13 midwestern states and operates the region from Louisville.

Chief Sanders will advance the Association's mission, work for adoption and enforcement of NFPA codes and standards, and foster implementation of NFPA fire safety education materials. He will also support the fire service as a special liaison in the United States and abroad.

Appointed Chief of the Louisville Division of Fire in 1986, Chief Sanders began his career in the fire service in 1967. He earned bachelor's and master's degrees from the University of Louisville and is certified in the National Fire Academy's Executive Fire Office Program. A past president of the Metropolitan Fire Chiefs Association, Chief Sanders has also served on various committees of the International Association of Fire Chiefs and the National Institute of Building Sciences. Chief Sanders will continue to serve on the NIBS board of directors, where he now serves as treasurer.

The Regional Representative Program serves the NFPA membership and the fire protection community through offices in Kentucky, California, Delaware, Florida, Massachusetts, and Virginia.

The Washington Scene

by Anthony O'Neill, NFPA Vice President for Government Affairs

Regulatory Reform

Earlier, we reported the Unfunded Mandates Reform Act (Public Law 104-4) had been signed into law by President Clinton as part of the House "Contract With America." Another "Contract" item of importance to State and local fire marshals is the regulatory reform movement in the U.S. Congress. Because of a proliferation of federal regulations impacting U.S. industry over the past 20+ years, there is a move within a more conservative Congress to dramatically change the way in which the federal government promulgates regulations. Under the general heading of "Regulatory Reform" the House has already passed and the Senate is considering sweeping regulatory reform bills that would require federal agencies to undertake major new cost benefit and risk assessment studies in promulgating regulations. One bill would require agencies to automatically terminate existing regulations in seven years unless the review process found the benefits of the regulation to outweigh the costs. Fire marshals should keep an eye on this legislation as it could impact federal OSHA, EPA and other regulations that are often used at the State or local level to establish public safety policy.

Children's Sleepwear

The Consumer Product Safety Commission (CPSC) will decide in September whether or not it will relax the children's sleepwear standards which have been in effect for years under the Flammable Fabrics Act requirements. NFPA has expressed its opposition to relaxation of these standards pointing out that the current rules are working and the proposed change would increase the potential for serious clothing ignition fires among one of America's highest risk populations, preschool children.

Charcoal CO Poisoning

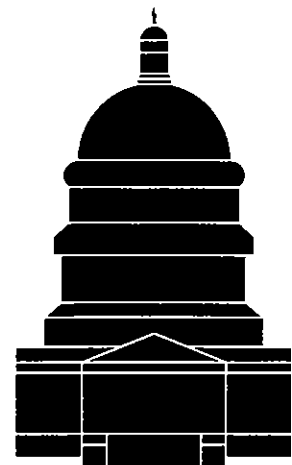
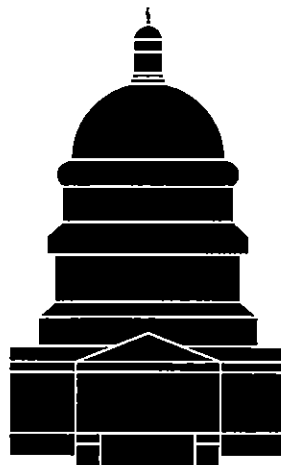
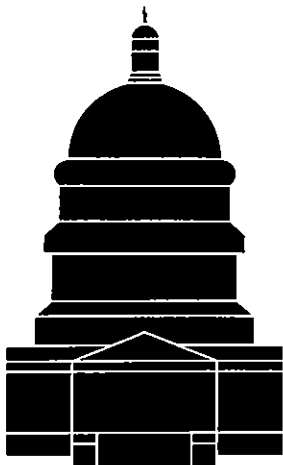
CPSC has issued a proposed rule requiring improved labeling of retail containers of charcoal to warn of the danger of using charcoal cooking appliances in confined spaces. The proposed amendments which would include a pictogram are intended to make the label more noticeable and more easily read and understood and to increase the label's ability to motivate consumers to avoid burning charcoal in homes, tents or vehicles. In talking with CPSC staff, there has been an average of about 26

non-fire CO-related deaths per year associated with charcoal grills and hibachis between 1986 and 1991 along with an average of 400 emergency room treated injuries involving charcoal grills from 1980 to 1993. For a copy of the proposed rule, call the NFPA Washington Office. Comments are due on October 24, 1995.

Anti-Terrorism Legislation

Following the Oklahoma City bombing of April 19th, NFPA joined the IAFC in support of Congressional funding for metropolitan fire departments for specialized training to respond to terrorist's attacks. The IAFC which is leading this effort has been successful in getting an amendment to the current "Anti-Terrorism" legislation in the Congress to add \$5 million for fire service use (training and equipment). The "Anti-Terrorism" legislation is due to be considered later on this year in the Congressional Agenda.

FMANA members are encouraged to contact the NFPA Washington office for information on these or other federal government activities at any time. (703-516-4346 or fax 703-516-4350)



NFPA Funds Harvard Grants for Fire Service Executives

The NFPA funded the 1995 National Fire Academy Harvard Fellowship Program for senior fire service executives. NFPA President George Miller offered the Association's financial support when it was announced in February that the National Fire Academy could no longer fund the program. The International Association of Fire Chiefs (IAFC) has also committed its financial support.

"We were very concerned that an educational tool of this merit could fall by the wayside," said Mr. Miller, who has spent time with the Fellowship Program participants for the past three years.

For the past 10 years the National Fire Academy has selected and underwritten the tuition costs for six senior fire service executives in the program. Some 130 applications for the 1995 program had already been received when the USFA announced it lacked the necessary funding.

The three-week program prepares participants for increased responsibilities and fosters relationships among public sector organizations across the country.

This year's Fellowship recipients are:

- Debra Amesqua, assistant chief, Tallahassee Fire Department
- Darrell Higuchi, deputy chief, Los Angeles County Fire Department
- Otis Latin, fire chief, DC Fire & Emergency Medical Services Department, Washington, DC
- Gary Morris, deputy chief, Phoenix Fire Department
- Robert Paulison, fire chief, Metropolitan Dade County Fire Rescue Department, Miami, FL
- Robert Rielage, assistant chief, Colerain Township Fire Department, Cincinnati, OH

The NFPA and IAFC are seeking additional partners to ensure the continuation of the program in future years.

Minnesota Ignites Cigarette Lighter Fire Safety Effort

by Terry Inverson, Fire Marshal, Falcon Heights, MN

The day is cloudy, cold, and rainy. A bored four-year-old watches television and plays with a video game while dreaming of playing outside. The child loses interest, climbs on the kitchen cabinet, and finds a cigarette lighter. This sounds like a nightmare – a countdown to fire disaster and devastation.



Fortunately, since July 12, 1994, all lighters that are disposable must be child resistant. The Consumer Products Division standard requires that lighters must have a locking device which will resist light activation at least 85 percent of the time by a child of 42-51 months of age. The city of Falcon Heights recognized disposable lighters as the #1 device used by juvenile firesetters in the community.

This information was used to capture the interest of the fire service community within seven metropolitan communities of the Twin Cities (St. Paul and Minneapolis) area.

A task force of 20 fire service public educators 65 fire chiefs are providing the area's 300,000 residents with fire awareness educational materials. Wal-Mart Corporation and Cricket Lighter Corporation are teaming up to work with the fire awareness task force to implement a lighter safety program. Funding has been provided by the Minnesota State Fire Marshal's Educational Board, Cricket Lighter Corporation, and Wal-Mart. Mary Nachbar, public educator in the state fire marshal's office, has been instrumental in providing publicity and advertising components to the program to emphasize child access and supervision issues.

The program utilizes videos, fire prevention information printed on POG games, and sports playing cards. A lighter exchange program has been proposed that would involve "drop boxes" placed at the Minnesota State Fair. During this year's Fire Prevention Week (October 7-15), Wal-Mart Corporation's nine district stores will team up with the fire service to get fire awareness messages out to the local communities. Activities will include fire apparatus displays, in-store activities, and lighter coupons. Shoppers will be encouraged to drop off non-child resistant lighters.

Fire Alarm Systems - Will Complacency Kill Us?

by Dennis Moss, Fire Marshal, Provo, UT

Over the years, major strides have been made to provide early warning of smoke and fire to the occupants of buildings. As children, most of us drilled once a month on what to do when the fire alarm sounded – we learned to stop what we were doing and exit the building. Unfortunately, once we graduated, all of those years of training seem to be forgotten as we found a self-consciousness about what others may think of us should we leave during a false alarm. Even more unfortunate is that those of us who should know better, and I am talking about you and me, ignore fire alarms.

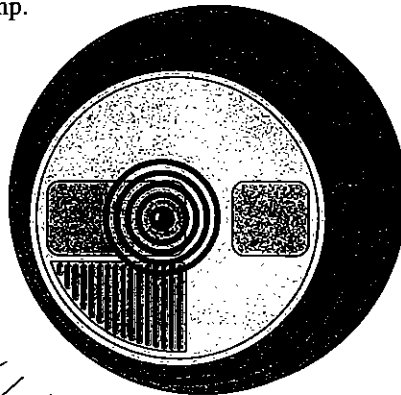
Just two years ago, I experienced two incidents where a fire alarm sounded and no action was taken. The first was at the NFPA's 1993 Annual Meeting in Orlando. During an indoor fire works demonstration, the smoke from the display set off the fire alarm system inside the convention center. Granted, most of the people in the audience, made up of fire service and industry professionals, knew why the fire alarm system went off, but not one person, including myself, got up to exit the building.

A few days later, as I was leaving Orlando to return home, I was walking through the airport terminal and detected a slight smell of smoke. Moments later, the fire alarm system inside the terminal sounded.

Because of my resolve to take proper actions the next time a fire alarm sounded, I began to head toward another section of the terminal that was beyond a fire separation. As I was leaving, I noted that everyone in the terminal, passengers

and employees, continued doing what they were doing. Passengers continued to look out the windows, read their newspapers, check schedules, and wait for flights. Employees continued sweeping, cleaning, and issuing tickets and seat assignments. Multi-million dollar aircraft loaded with hundreds of people continued to pull up to gates. Not one person took the alarm seriously.

I quickly crossed into the next fire zone and took a seat next to an exit that led out onto a ramp.



If the alarm spread to this new section, I would be able to exit directly to the outside. But then fear crept up inside me as I began wondering if I would be detained or arrested if I went through those doors posted "Authorized Personnel Only." I realize now that this was an unfounded fear, but it gave me some more insight as to why we sometimes respond improperly to a fire alarm.

As I sat next to the exit door, I noticed airline employees opening fire doors and wedging flight schedules under them to keep the doors open. I spoke with one employee about leaving the doors closed because I could still smell smoke. The

employee seemed agitated that I wanted the doors to remain closed.

I never found out what caused the alarm, but in any case, I was shocked at the indifference we display toward our own survival. In the two years that have passed since these events, I have pondered on the value of fire alarm systems and what can be done to get people to react to them. I believe the real problem is our attitudes.

What can we do? First of all, I believe that we, as fire professionals, must lead the way. No matter where we are or what we are doing, we need to set the example by immediately leaving the building during a fire alarm. Sometimes, all it takes is for one person to lead and the rest will overcome their fear of potential embarrassment. We need to get out of the "let's find out why the alarm went off first" syndrome before exiting the building.

Secondly, we need to teach our families, neighbors, and friends to do the same thing. And for those of us who are involved in public education, we need to address this attitude adjustment in our messages.

Having a few heads turn to look at you as you leave a meeting or event is always a better alternative than trying to get out with the crowd should the alarm turn out to be real. Make the commitment!

(I would love to hear from others who have had similar experiences and other ideas and solutions to the problem. Perhaps this could be a subject for discussion at an upcoming FMANA meeting. I can be contacted at 80 South 300 West, Provo, UT 84601, (801) 379-6303 or FAX (801) 379-6309)

Denis Onieal Named Fire Academy Superintendent

Dr. Denis Onieal, acting fire chief of the Jersey City, NJ, Fire Department, has been named superintendent of the National Fire Academy (NFA). His appointment was announced by FEMA Director James Lee Witt.

Mr. Witt noted that Dr. Onieal is the first non-political appointee to the position. "He was appointed after a competitive, nationwide search and brings us the outstanding qualities of firefighting leadership and academic excellence."

USFA Administrator Carrye Brown called Dr. Onieal a "firefighter's firefighter and an educator's educator. I am proud to have Dr. Onieal on our team. His leadership will take the NFA to even greater levels of service to America's firefighting community."

Dr. Onieal is on the adjunct faculty of the New York University Graduate School of Education, has a master's degree from Fairleigh Dickinson University, and a bachelor's from Jersey City State College. He is the author of 22 publications on fire-related issues.

A native of Jersey City, Dr. Onieal has been a firefighter since 1971, rising through the ranks to become deputy fire chief in 1991 and acting chief in 1995.

Located in Emmitsburg, MD, the NFA offers training and education programs to fire and emergency service personnel across the United States. Some 80,000 students participated last year alone in programs and courses offered both on-campus and off-campus, in combinations of multi-week, week-long and weekend combinations.

FMANA Merchandise for Sale

We are pleased to finally offer merchandise that allows you to proudly display your affiliation with FMANA. If there is enough interest, we will be adding to this line of merchandise. Please let us know what you think.

FMANA Golf Shirt

The golf shirt is a 50% cotton/50% polyester blend and is machine washable. The shirt is white and features a three-color embroidered FMANA logo. The shirt comes in small, medium, large, and extra large. The price is \$25.00.



FMANA Lapel Pin

The lapel pin measures 7/8" and features a two-color FMANA logo on a brass background. The price is \$3.00.

Please use this coupon to order FMANA materials. Return the coupon to: FMANA, Dept. ORD, P.O. Box 600, Smyrna, DE 19977.

Please send me:

- _____ FMANA Lapel Pins @ \$3.00 ea.
- _____ FMANA Golf Shirts @ \$25.00 ea. in the following sizes:
- | | |
|-------------|-------------------|
| _____ small | _____ medium |
| _____ large | _____ extra large |

Shipping Charges:

For United States, please add \$4.00 to total order;

For Canada, please add \$9.00 to total order;

For Foreign, please add \$14.00 to total order.

NOTE: All prices are U.S. funds.

Enclosed is a check for \$_____

Please make check payable to FMANA

Please send merchandise to:

Name _____

Address _____

City _____ State _____ ZIP _____

Life Safety Code - 1997

by Walter Smittle III, West Virginia State Fire Marshal

The 1997 edition of the NFPA's Life Safety Code continues to be formatted to meet it more "user friendly" and to incorporate the changes based on many proposals. The proposed changes will improve the quality of fire protection for the people we endeavor to protect. As a member of the Technical Correlating Committee and the Fundamental Committee of NFPA 101, the task of meeting the new concept performance-based design code in a perceptive code is a unique challenge for all of us.

As enforcers, we must not take the "ostrich syndrome" approach to this innovation. New Zealand, Australia, and other countries have implemented a performance-based code. Enforcers need to get prepared in order to deal with this new innovation of fire safety. If computer technology is not your area of concern, it soon will be! The need to be literate in fire modeling (Hazard I, etc.) is important. The time to begin broadening your expertise on computer technology for fire modeling should begin today.

The Life Safety Code Committees are developing information on methods of demonstrating equivalency as a performance-based design code in a code that is structured as a prescriptive-base design. During the next few years, the Life Safety Code Committee will seek comments with the objective of including performance-based design code requirements in the next edition of NFPA 101.

The committee has outlined this approach to performance-based design code to include introduction, survivability criteria, fire scenarios, calculation methods, assumptions regarding occupants, prescriptive requirements that remain within a performance-based code, and reliability of safety factors. These areas of code development are not complete and a lot of work is necessary in order to meet the next code cycle of NFPA 101. It is not my intent to elaborate on each of these items for a performance-based design code, but only to advise you of what's happening. Keep in mind nothing is carved in granite. Your input into this process will be critical to the success of providing an innovate approach to fire safety design.

I trust you will not panic when a performance-based design code becomes a part of your work. What you should consider is the performance-based design code is nothing more than an elaboration of the existing and established concept of equivalency.

Be ready to meet the challenge by getting involved. Your input will be vital and the success of fire safety depends on your perspective of this new innovation in fire safety. Make sure you review the ROP (Report on Proposal) to be released in early 1996.

As a result of this activity in the code development process, I call upon the FMANA Board of Directors to review the opportunity of providing training to Fire Marshals on FSES (Fire Safety Evaluation System) and Hazard I. A performance-based code training program can enhance the FMANA Fire Protection Institute. The train is leaving the station - will you be on board or be left behind?

FMANA Survey of Educational Interests

FMANA is conducting a simple survey to identify your educational needs. It will help us to develop the type of training sessions which will provide the most benefit to our membership. Your participation will allow us to better serve you. Please take a few moments to fill out the survey, and mail it to:

Jim Crawford
Fire Marshal
Portland Fire Bureau
55 S. W. Ash Street
Portland, OR 97204

1. The time frame most suited to my schedule for training is (check the one that best applies):

- one day
- two days
- three days
- one week

2. The topics of most interest to me are (check all that apply):

- How to develop community based prevention programs
- Presentation on the movement toward a single National Fire Code
- Building effective relationships with building officials
- Establishing the role of the fire service in the plan review process
- Dealing with juvenile firesetters
- Making effective presentations to elected officials
- Developing effective fire sprinkler ordinances
- Total Quality Management: What it means to the fire service
- Updates on NFPA 1/101
- Updates on performance-based codes
- Strategic planning for fire prevention programs
- Increasing fire service participation in the codes & standards process
- Evaluation of fire prevention programs
- Others (please list)



**FIRE MARSHALS ASSOCIATION OF NORTH AMERICA
SECTION NEWSLETTER**

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