

# **Society of Fire Protection Engineers**

**New Jersey Chapter** 

Interim Editor Fusible Link: Brad Hart & Ana Crisostomo Tel. (212) 837-0827 Fax (212) 344-3060

President – Chuck Gandy – 973-398-1445 First V.P. – Sarge Slicer – 973-541-6718 Second V.P. - Rich Reitberger – 973-541-6776 Past President – Joe Janiga – 973-541-6774 Director - Pat Egan - 973-402-2200 Director - Frank Savino - 908-688-0300 Treasurer – Glenn Deitz – 973-822-7396 Asst. Treasurer – John Cholin – 201-337-8621 Secretary – Dave Gluckman – (973) 410-4635 Asst. Secretary – Brad Hart – 212-837-0827 Director - Bob Murray - 732-205-9440 Director - Edgar Novoa - 732-868-2357

# **FUSIBLE LINK**

www.njsfpe.com

October 2001

We are all deeply distressed by the September Eleventh Attack on the World Trade Center. We express our condolences to the families of those missing. The NY Chapter under the auspices of the Society has established a relief fund for the families of our lost members. Please visit our web site at <a href="https://www.njsfpe.com">www.njsfpe.com</a> for details on how you can help.

The NJ Board of Directors is planning an emergency board meeting to determine how the Chapter can help.

Please attend our October 1st meeting where we can share more information and memorialize the lost.

# NJ-SFPE Membership Meeting Minutes 9/10/01

1. The secretary read the minutes from the general membership meeting from the June 6, meeting. The minutes were accepted.

- 2. The Treasurer read the result from the joint seminar and golf outing.
- 3. The audit committee completed their financial audit and submitted two recommendations for review.
- 4. Anyone interested in purchasing NJ SFPE mugs and/or golf shirts should see Rich Reitberger.
- 5. Brad Hart is looking for additional assistance with publishing the Fusible Link. Any help and information for future articles would be greatly appreciated.
- 6. John Ed Ryan received an Outstanding Service Award for all the years he spent as editor of the Fusible Link.
- 7. Anyone interested in assisting with the writing of National PE Exam questions should see Chuck Gandy for further information.
- 8. Bob Malanga gave a technical presentation on "An Introduction From a Fire Safety Engineering

Perspective" regarding performance-based fire protection design.

#### **ESTIMATING FIRE RESISTANCE**

Canadian Institute for Research in Construction (IRC) has recently completed a joint project with the Canadian Steel Construction Council (CSCC) that can provide an alternate to costly fire-resistance testing. The project focused on the numerical modeling of lightweight steel framing of floor assemblies subjected to fire. The researches were able to trace the complex interaction of thermal and structural phenomena in floor assemblies exposed to fire. This involved integrating two different models, "TRACE" and "JOIST." The project confirmed together the two models provide a comprehensive fire-resistance model. Specific questions can be directed to Mr. Farid Alfawakhiri, Steel Fellow at (613) 991-2817, fax (613)954-0483 or e-mail farid.alfawakhiri@nrc.ca.

#### GEORGE KOUTSOUBIS PE

SENIOR ENGINEER

### ALPHA~OMEGA ENGINEERING PA

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# September 10, 2001 Technical Presentation Summary

Bob Malanga gave a technical presentation titled "An Introduction From a Fire Safety Engineering Perspective" based upon information contained in the SFPE Engineering Guide to Performance-Based Fire Protection Analysis and Design of Buildings. Some of the information presented included an outline of the overall process for PBD, guidance to engineers and AHJ's to assess achievement of fire safety goals, identification of parameters for consideration, and suggested, but not sanctioned, reference sources were given. A copy of the PowerPoint slide presentation was handed out to all attendees.

Ten steps were identified for the use of performance- based design. These included:

Step 1	Project Scope		
Step 2	Identify Fire Protection and Life		
	Safety Goals		
Step 3	Define Stakeholder and Design		
	Objectives		
Step 4	Performance Criteria		
Step 5	Develop Design Fire Scenarios		
Step 6	Developing Trial Designs		
Step 7	Fire Protection Engineering Design		
	Brief		
Step 8	Evaluating Trial Designs		
Step 9	Select the Final Design		
Step 10	Documentation		

A final thought that must be considered in all performance-based designs include the qualifications of the engineer for the specific problem, the consequences of poor judgment, meeting the goals of the design, and is the design reasonable.

#### **CHAPTER MEMBERSHIP DUES**

As per the reminder in the September issue, the timing of our dues to the local New Jersey Chapter is consistent with our chapter year. Please fill out the membership form enclosed and return it to Glen Deitz at your earliest convenience.

SUPREME COURT INTERPRETS ADA (American Disability Act) to permit golfer Casey Martin to ride a golf cart in a PGA tournament. In May, the USA&TBCB (US Architectural and Transportation Barriers Compliance Board) approved the text of new guidelines under ADA for a variety of recreational facilities, including golf courses. The rule was developed with significant input from the golfing industry and golfers with disabilities. The guidelines

support the premise that teeing grounds, putting greens and other areas can be reached by a golf cart instead of the accessible route otherwise required throughout the site. HOWEVER, the guidelines only address facility design and DO NOT cover the provisions of golf carts OR policies concerning their use. Technical assistance on this and other issues is provided through the ADA hotline at (800) 514-0301 (voice or TTY)

FIRE PREVENTION WEEK this year will be observed October 7-13.

Sponsored for 79 years by NFPA, this year's theme uses baseball as a format: "COVER THE BASES AND STRIKE OUT FIRE." For visual aids and pamphlets contact NFPA.

MICHAEL NELSON

ENGINEERIMS MANAGER



#### ROLF JENSEN & ASSOCIATES Professional Engineers, P.C.

FIRE PROTECTION ENGINEERING CONSULTANTS

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# ICC HIRES GOVERNMENT RELATIONS DIRECTOR

The International Code Council has retained the services of Sara Yerkes as their government relations director. Formerly the National Fire Protection Association Government Affairs Director, Ms. Yerkes brings over 19 years of experience in government legislative and regulatory affairs and association management to the operation of the Code Council. She will be responsible for promoting health safety issues on behalf of the nations model code development and

enforcement entities. Ms. Yerkes will primarily serve as liaison between Congress, federal agencies and national private sector organizations. She will also act as coordinator of ICUS member organization's state and local government affairs activities.

The International Code Council membership is the Building Officials and Code Administrators International, Inc. (BOCAI), the International Conference of Building Officials (ICBO) and Southern Building Code Congress International (SBCCI). Prior to 1998 each of these model groups developed and maintained separate family of codes, which have been widely adopted throughout the United States and other nations. These individual codes have been replaced by a complete family of codes regulating all aspects of construction. These codes (some of them) have been adopted as mandatory state codes in a number of states including New York, Pennsylvania, Wisconsin and New Jersey (mechanical, & fuel gas). They are being reviewed for adoption in other states including Rhode Island, Massachusetts Connecticut. The second editions of the codes will be published in 2003 and thereafter on a three-year cycle.

Steps are presently underway to merge the three model code agencies into one national model code organization.



#### \*\*LOSS CONTROL CONSULTANT NEEDED\*\*

**Starr Technical Risks Agency, Inc.,** is seeking a Loss Control Consultant with experience in "energy" and related classes of business. The selected individual will spend approximately fifty

percent of his/her time conducting loss control surveys at insured's and prospective insured's sites, primarily in the Northeastern part of the U.S. The Consultant will develop market reports, interview prospective clients and make recommendations. The remainder of this person's time will be spent in the New York Regional office, writing reports and supporting the underwriting activities of the staff.

Qualified candidates should have a minimum of five years of loss control experience (preferably ten) in the Energy Industry. Specifically, experience in two or more of the following industries is highly desirable: Oil and Petrochemical, chemical, power generation, pulp and paper, steel, mining, electronic industries and construction.

Starr Technical Risks Agency, Inc., is an affiliate of American International Group (AIG), and part of its Global Energy Division. AIG is the leading U.S.-based international insurance and financial services, organization and the largest underwriter of commercial and industrial insurance in the United States. Its member companies write a wide range of commercial and personal insurance products through a variety of distribution channels in approximately 130 countries and jurisdictions throughout the world. AIG's global businesses also include financial services and asset management, including aircraft leasing, financial products, trading and market making, consumer finance, institutional, retail and direct investment fund asset management, real estate investment management, retirement savings products. International Group, Inc.'s common stock is listed on the New York Stock Exchange, as well as the stock exchanges in London, Paris, Switzerland and Tokyo.

Qualified candidates can contact Rhonda Clarke at: Phone Number: 212-770-5099.



#### \*\*HPR Loss Control Consultant Needed\*\*

Zurich North America has an exciting, new opportunity for an HPR Loss Control Consultant in the NJ area. This individual will provide consultative Risk Engineering Services to customers, business partners and Claim Specialists within an assigned territory and will be responsible for risk identification and reduction for assigned locations/accounts. This person will be accountable for acting as an owner and working to improve the organization. Candidate must be proficient in insurance coverage and working knowledge of the Highly Protected Risk (HPR) Property Business segment. Must have skills to coordinate large and complex accounts and aggressively handle customer needs. also be able to provide Risk Engineering assessments on a variety of size accounts and must be able to Market/Sell Risk Engineering Services. The ability to assess property and business interruption risks while exercising good engineering judgment and flexibility in providing risk reduction solutions is mandatory. Must meet agreed upon production goals. Will proactively seek ways to improve Technical, Segment, and Business Competencies and be responsible for performing service visits, assessments, and presentations in order to maintain proficiency. Also, generate innovative solutions to satisfy customer needs.

#### Requirements:

- Good oral and written communication skills
- Good listening skills
- Promotes teamwork
- Maintains positive attitude and overcome adversity
- Good understanding of insurance, regulatory environment, financial and BU products.
- Significant property industry knowledge
- High level of expertise with computer systems and applications

Qualified candidates can contact Mandy Kelleghan at:

Phone Number: 877-847-6593 x7416

#### SOMETHING IS ALWAYS OVERLOOKED

This time it happened in Pennsylvania. After more than thirty years of effort, the legislature and Governor agreed that there should be a mandatory Uniform Construction Code for all areas of the State.

In the last two years, the Dept. of Labor and Industry, which is responsible for the code, have developed acceptable regulations for enforcement and have adopted the International Family of Codes (Developed by the International Code Council). OVERLOOKED is the fact that the large Amish population DISAVOW use of electricity in their homes, farms and schools. There is no provision in the current law for exemptions based on religious beliefs. The problem is being addressed by House Bill 199-0. Electrical "rough-ins" will not be required on property owned and used by the Amish Communities. However, the bill provides that, if a structure built under the exemption is sold or leased to someone outside the religious community, it must be brought into full compliance. Only the provisions relating to electrical service in the law will be affected.

It is understood that the new code will be effective January 1,2002

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Following the success of providing *THERMAL IMAGING CAMERAS* to every fire department in the state, the NJ Department of Community Affairs and the Division of Fire Safety has provided the TI Cameras to every fire training academy in the State without cost.

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Sprinklers Required in All New Connecticut Schools -- Public Act 01-173 mandates that automatic sprinklers be installed on each floor of newly constructed schools, if the construction is eligible for a grant and if the project is put out for bids. Systems must be approved by the local fire According to marshal. a U.S. Fire Administration newsletter, construction of sprinklered schools is estimated to cost \$90 per square foot vs. \$122.22 in order to comply with the fire resistance of schools without sprinklers.

### MORE ON LICENCING/REGISTRATION OF PROFESSIONAL FIRE PROTECTION ENGINEERS

In previous FUSIBLE LINKS attention has been focused on the several concerns of state licensing/registration Boards and other over the professional recognition of Fire Protection (and other title disciplines) Engineers. The National Council Examiners for Engineering and surveying (NCEES) conduct for the individual state Boards, examinations for the several disciplines. Examinations for the Group I disciplines are conducted in the spring and for the Group II fall. Examinations disciplines (sometimes called "title licenses") are only given in the fall, usually October.

FIRE PROTECTION ENGINEERING WAS RECOGNIZED IN 1981, through the efforts of SFPE and especially those of Executive Director D. Peter Lund. Since that time SFPE has assisted NCEES in developing tests and correcting them. Additionally, SFPE and their talented staff

have been able to blunt the various concerns. Recently President Wayne Moore and CEO Kathleen H. Almand attended the NCEES annual meeting. There were two proposals related to the Group II examinations which were voted on by the state licensing boards. One, to limit the initiation of new PE exams to those disciplines with 10 or more ABET Accredited programs, was defeated. ABET means Accreditation Board for Engineering and Technology. At the present time FPE has Maryland and possibly WPI. The second proposal, to establish a task force to look at all issues pertaining to Group II exams, was approved. Wayne has offered to serve on this task force. This effort is subject to approval of NCEES. The Council voted to halt any approval of new GROUP I or **GROUP** II pending exams the recommendations of the task force. The presence of Wayne and Kathleen was noted as a commitment by SFPE to the licensing process. It is vital that ALL state licensing boards be informed as to the special talents of Fire Protection Engineers.



# **Candle Fires On the Rise**

The following is a summary of an article from the NFPA Journal

There are twice as many home candle fires in December than any other month.

Home candle fires have risen during the past decade. In 1997, the most recent year for which data are available, there were a reported 11,600 home candle fires in homes, which caused 156 civilian deaths, 1,202 civilian injuries, and more than \$171 million in direct property damage. These 11,600 home candle fires were more than twice the 5,460 reported in 1990. Record levels were also reported in 1995 and 1996 with 8,440 and 9,930 home candle fires, respectively.

While other causes for home fires have decreased, the percentage caused by candles has gone the other way. Between 1980 and 1990, candles were responsible for 1.1 percent of home structure fires. In 1997, however, they were responsible for 2.9 percent.

According to data collected by NFPA and the National Fire Incident Reporting System, nearly one-third of home candle fires between 1993 and 1997 began when lit candles were left unattended, abandoned, or inadequately controlled. Nearly one-fifth of home candle fires began because the candle flame was too close to objects that could burn.

Of particular note this holiday season is the fact that there are historically twice the number of home candle fires in December than there are in an average month. And each year candles have been responsible for 43 percent of home decoration fires.

# **Peak Holiday Season**

Not surprisingly, the winter holiday season is peak time for candle sales, which have increased dramatically during the past decade. In fact, the industry has grown 10 to 15 percent annually, and the growth rate shows no signs of slowing. U.S. candle consumer retail sales are projected at \$2.3

billion for 2000. The National Candle Association (NCA) estimates there are more than 300 commercial, religious, or industrial candle manufacturers in the United States, and each major manufacturer offers 1,000 to 2,000 kinds of candles. The NCA also reports that candles are used in 7 out of 10 households.

The Massachusetts Office of the State Fire Marshal and NFPA studied candle fires that occurred in Massachusetts in 1999 to learn more about them. Separate questions asked if the candles were unattended and about the cause. They found that threequarters of the candle fires in the state that vear occurred when candles unattended. Forty percent of all candle fires were caused by combustibles too close to the candle. Although consumers may think that jar candles don't need as much space as pillar or votive candles, almost half of the jar candle fires began when the candle was placed too close to combustibles.

And just because there's someone in the room when the candle is lit doesn't mean that he or she is monitoring the candle. Roughly one-quarter of the fires in which combustibles were too close and in which candles were knocked over occurred when someone was present.

#### **Candle Standards Needed**

Consumers assume that their candleholders are safe, so they don't expect it to break or catch fire. However, there are no standards for glass candle containers. Although some glass containers are made of tempered glass that can withstand high temperatures, others are not. In the Massachusetts study 3 percent of the candle fires started when the holder broke. All the candleholders that broke were made of glass.

The U.S. Consumer Product Safety Commission (CPSC) has recalled several candles and candle-related products. But until standards are established to regulate the manufacture of candles in this country, CPSC can't require imported and domestic candles to meet any safety standards.

# The NFPA offers the following tips for safe use of candles:

- Use candles only with constant adult supervision.
- Extinguish all candles when leaving a room or going to sleep.
- Keep candles well away from items that can catch fire, such as Christmas trees, flammable decorations, clothing, books, paper, curtains, etc.
- Make sure candles are placed on a secure piece of furniture, in sturdy holders that will not tip over. Make sure candleholders are noncombustible and big enough to collect dripping wax.
- Do not place lit candles in windows, where blinds or curtains can close over them.
- Keep wicks trimmed to ¼ inch, and extinguish candles when they burn down to within two inches of the holder.
- Keep candles and all open flames away from flammable liquids.
- Do not use candles in places where they can be knocked over by children or pets.

# Where young children are present:

 Keep candles up high, out of reach of children.

- Never leave a child unattended in a room with a candle. A child should not sleep in a room with a lit candle.
- Keep all matches and lighters up high and out of the sight and reach of children, preferably in a locked cabinet.

#### During power outages:

 Flashlights and other lights generated by batteries are much safer light sources than candles.

Rich Reitberger, Chairman

Try to avoid carrying a lit candle.

John Cholin, Chairman

- Don't use a candle to go into a closet to look for things.
- Never use a candle for light when fueling equipment such as a kerosene heater or lantern. The flame may ignite the fumes.

# Meeting Dates/Program for 2001-2002

(Programs Subject to Change)

Watch web page concerning cancellation In case of possible inclement weather conditions

Oct. 2	TYCO Sprinkler Update - Jim Bruneti/James Golinveaux
Nov. 5	Hot Work Safety and Losses - 3-Way
Dec. 3	Surf the FP Web - Internet Resources
Jan. 7	Fly Ash Silo Explosion - John Cholin
Feb. 4	Business Continuity Planning - Larry Wenzel
March 4	HID Lighting Dangers, GE Ed Yandek
April	NJ Chapter Seminar - Engineering Ethics Panel Discussion, Legal Consideration in FP Design,
	Modeling Performance of Detectors for PBD
May 6	Sprinkler Fitters Union 696 Sprinkler Economics, Field Trip @ Milburn
June 3	Viking Upright ESFR

#### \*Watch Web Page for Weather Announcement

#### POSITIONS TAKEN BY SPEAKERS ARE NOT NECESSARILY THE POSITION OF THE NJ S.F.P.E.

All meetings are held at the Hanover Manor, Eagle Rock Road, Hanover, NJ (approximately 1½ miles west of Eisenhower Parkway). Get Acquainted Hour 5:00-6:00 p.m. Adjournment is usually before 8:30 p.m. The Executive Committee meets at 4:00 p.m.

Editors Note--If you would like to advertise your company and help offset the cost of this publication, as well as having your business card in front of over 150 Fire Protection Professionals please call John Cholin at (201) 337-8621 for further information. The cost is \$100 for 10 issues.

#### **COMMITTEES 2001-2002**

Standing Committees	Special Committees	
Program:	Bylaws: Jim Tolos, Chairman	
Mike Newman, Peter Rullo, Co-Chairs, with	Joe Janiga – Co-Chairman	
input from all members	Career Recruitment:	
Consulting – Nick Chergotis	Al Dopart, Chairman	
NY Chapter Liaison:	Tom Brereton	
Rich Reitberger (Pat Egan back-up liaison)	Joe Stavish	
Arrangements:	Glenn Deitz	
Mike Newman, Peter Rullo, Co-Chair	Dave Gluckman	
Membership:	Golf Outing:	
Sarge Slicer, Chairman	Richard Reitberger, Chairman	
Nominating:	Bob Murray	
Joe Janiga, Chairman	Awards:	
Glenn Deitz	John Ed Ryan	
Third Person Position - Open	Frank Savino	
Scholarship Fund:	PE Examination:	

Robert Hall

Two NY Chapter members to be assigned

Auditing:

Jim Tolos

Joe Janiga

Archivist/Historian:

Jim Tolos

Communications:

Fusible Link: Brad Hart, Interim Editor

Dave Gluckman, Asst. Editor

Ana Crisostomo, Publishing

Mailing/Automation:

To be determined

Joe Janiga Mike Newman Chuck Gandy

Joint Seminar/Chapter Seminar

Richard Reitberger, Chairman

Nick Chergotis Pat Egan

Dave Gluckman

Legislative:

Rich Reitberger, Chairman

Jerry Naylis