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Society of Fire Protection Engineers

New Jersey Chapter

FUSIBLE LINK

NOVEMBER 2007

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President's Message



Our October meeting was a field trip to Pemall in Cranford and it was an excellent learning experience which included a both a tour of the facility and presentation. My sincere thanks to Ed Armm for arranging this for us as well as to Rich Reitberger for setting up our excellent dinner at the Garlic Rose Bistro. Also, I want to thank Rich Ravaoli for letting us use his conference room at Survivor Fire for our board meeting.

As most of you are aware, Daylight Saving Time gives us the opportunity to enjoy sunny summer evenings by moving our clocks an hour forward in the spring. This year, the end of Daylight Savings Time has been moved from the last Sunday in October, to 2 AM, Sunday, November 4. Yet, the implementation of Daylight Saving Time has been fraught with controversy since Benjamin Franklin first conceived of the idea during his sojourn as an American delegate in Paris in 1784. Some of Franklin's friends, inventors of a new kind of oil lamp, were so taken by the scheme that they continued corresponding with Franklin even after he returned to America.

The plan was not formally adopted in the U.S. until 1918. 'An Act to preserve daylight and provide standard time for the United States' was enacted on March 19, 1918. During World War II, President Franklin Roosevelt instituted year-round Daylight Saving Time, called "War Time," from February 9, 1942 to September 30, 1945. The Uniform Time Act of 1966, signed into law by President Lyndon Johnson, created Daylight Saving Time to begin on the last Sunday of April and to end on the last Sunday of October. On January 4, 1974, President Nixon signed into law the Emergency Daylight Saving Time Energy Conservation Act of 1973. The Energy Policy Act of 2005 extended Daylight Savings Time in the U.S. beginning in 2007. What does all this mean for us? This would be an excellent time to **change the batteries in you smoke detectors, your carbon monoxide detectors and exercise the circuit breakers in you home!**

See you all at the Hanover Manor on November 5, at 5 PM Eastern Standard Time!

David Gluckman
NJSFPE Chapter President

<http://www.sfpe.org/Chapters/NewJersey.aspx>

NJ SFPE Membership Meeting Minutes October 1, 2007

The October meeting was held at the Garlic Rose Restaurant in Cranford NJ after a plant tour of local fire protection equipment manufacturer PemAll a Division of Pem Systems, Inc. Chapter President Dave Gluckman presided. The minutes of the September meeting and the Treasurers report were read and accepted by the membership. Jim Tolos read changes to the Chapter By-Laws (second reading) which was then voted on and

accepted by the membership. An increase in the Chapter dues was also presented and voted on at the meeting. The Chapter dues is now increased to \$20 year. Two new membership applicants were introduced and voted on and were accepted. They are Scott Mataya of FM Global and Nathan Gorey of Affiliated FM Ins. Welcome to both Scott and Nathan. The meeting was followed by a great meal.

The plant tour of Pemall, also located in Cranford included

a briefing of the company history, their current and past products and demonstrations of some of their line of fire suppression systems. UL testing methods and criteria was briefed and a demonstration of a test was done. A tour of the testing facility was also provided. A final demonstration of a new PemAll Stat-X electrically agent generator system was performed. See the PemAll web site at <http://www.pemall.com> for more details on their products and services.

CAREER OPPORTUNITIES...

Fire Protection Engineer Construction Materials Manufacturer

About Us:

Specified Technologies Inc. (STI) is a leading manufacturer of fire protection products for the construction industry. Headquartered in Somerville, NJ, our innovative fire stopping systems and products are used on construction projects worldwide.

Job Description:

Provide technical support via phone, fax, and email to contractors, architects, engineers, consultants, and AHJs for company products. Use CAD software to design non-standard applications for existing products. Participate in

ICC Code Development process. Participate in ASTM Standards development process. Perform other technical duties as assigned. This job reports to the Technical Service Manager.

Qualifications:

Require engineering degree from an accredited program, minimum 2 years experience in fire protection engineering. Ability to travel up to 20% overnight on domestic and/or international business. Current working knowledge of ICC Codes and ASTM Standards. Excellent interpersonal skills along with strong writing and speaking skills.

Prefer valid PE license and knowledge of fire barriers and/or firestopping.

Compensation:

STI offers a competitive salary commensurate with qualifications, excellent benefits including medical and dental, 401K, and tuition reimbursement.

Contact:

Send resume, cover letter, and salary requirements to hr@stifirestop.com. Principals only. EOE.



One Barker Avenue, 3rd Floor
White Plains, NY 10601
Phone (914) 949-0555 Fax (914) 949-0666

Fire Protection ■ Code Consulting ■ Risk Control ■ Security Consulting

Position Description:

Company Description: Schirmer Engineering is internationally recognized as one of the premier fire protection engineering, life safety and security consulting firms in the world. Founded in 1939, we are one of the oldest and most trusted names in fire protection engineering, with offices located throughout the United States.

Location: Schirmer Engineering is currently looking for engineers to fill new positions in our New York Metropolitan area office located in White Plains, NY. Minimum Education: Interested individuals should have a M.S., B.S., or Associates Degree in Fire Protection, Mechanical, or Electrical Engineering, Architecture, Architectural Engineering, or related fields. Individuals having an AIA certification, an EIT, or P.E. in Fire Protection Engineering or a related field are preferred.

Minimum Work Experience: Schirmer Engineering welcomes inquiries from individuals from all levels of experience, although individuals

having 3 to 7 years of related engineering experience are preferred. Work experience should demonstrate growth and a proportional increase in technical, project management, business development and related responsibilities.

Special Skills: Applicants should be technically oriented, with good analytical and organizational skills. Excellent communication skills (written and oral) required. Individuals should have a broad knowledge of general building construction methods, familiarity with building and life safety codes, and experience in working with contractors, architects, and/or engineers. Knowledge and background with computer fire modeling techniques and performance-based design is a plus. The selected individual must have the ability to work both independently and in a team environment. Persons with the desire for career growth and interested in participating in the development of a rapidly growing, dynamic office are encouraged to apply.

Duties and Responsibilities: Technical

responsibilities will include fire protection system design, specification development, construction services, building surveys, building code consulting, computer fire, smoke and egress modeling, plan review, accessibility consulting, and related fire protection, life safety and building code consulting services. The selected individual will also assist in the development of project proposals and participate in business development. Candidates with appropriate experience will participate in, and direct financial and technical management of assigned projects.

Contact Information: For additional information regarding Schirmer Engineering, please see our website at:

www.schirmereng.com. Forward confidential resumes and inquiries to:

Michael J. Rzeznik, P.E.
Manager – New York Regional Office
1 Barker Avenue, Third Floor White Plains, NY 10601
(914) 949-0555

Mike.Rzeznik@schirmereng.com

Marsh NJ is Looking for Property Risk Control Consultant to Work Out of Their Morristown, NJ Office

Technical Expertise

5-10 years of relevant experience. Bachelor's degree in engineering (fire protection or related) or equivalent. Background in fire protection/loss prevention or fire safety in industrial occupancies. Previous industry or insurance carrier experience preferred.

Client Service

- Analyzes client needs or project outline and recommends suitable approaches or options to consider.
- Uses facilitative and diagnostic skills to assist clients in the articulation of unusual problems.
- Probes beneath surface issues for concerns or issues that may be unclear to the client.
- Converts or translates project requirements into a work plan within a practice or technical area.
- Selectively matches products and services in own specialty to client's key needs.
- Uses systems to organize and track information.
- Produces creative and effective materials that reflect an understanding of client, project and technical issues.
- Performs tasks on client implementation and

measure results.

- Respect and maintain client confidentiality.
- Project Management:
- Follows the continuous risk improvement methodology.
- Suggests and applies objective criteria for measuring important processes.
- Identify and suggest new ways of applying processes and technologies.
- Manage and on occasion develop profitable project budgets, and assist with negotiating changes.
- Participates in the development of pricing of projects and securing appropriate selection of resources.
- Participates in the development and securing of client service agreements.
- Complies with company policy and procedures for timekeeping, expense reporting and billing.

Communications

- Develops and deliver effective written and oral communications, such as proposals, technical concepts and deliverables.

Additional Responsibilities

Seeks opportunities to develop new skills and broaden and deepen knowledge for yourself and colleagues. Supports and facilitates a team environment of continuous feedback and idea sharing. Participates in external associations to contribute skills and enhance technical abilities.

Team Work

Participates in team planning and implementation activities and openly shares information and own expertise to accomplish group goals.

Travel required (domestic and international travel possible)

Anyone interested in the position should contact:

Joseph M. Piontkowski
Senior Vice President
Northeast Zone PRC Leader
Marsh Risk Consulting
Marsh USA, Inc.
300 South State Street
Syracuse, NY 13202
(315) 425-3936 Phone
(315) 425-3952 Fax

Fire Protection Engineering/Property Risk Control Consultant Position

(Available immediately)

About our Company:

Willis is one of the world's largest insurance brokers in the world, with over 16,000 people in 300 offices in 100 countries. We specialize in insurance broking and risk management services. Established in 1832, we are one of the oldest and most respected firms in the industry.

Willis is a people business. Those who join the **Willis Group** experience all the benefits available from a market leader in a dynamic industry including career diversity, job satisfaction, excellent training and resources.

We believe in motivating our employees to do the best. This requires a stimulating and challenging work environment and the financial rewards they merit. Our ability to perform at an exceptional level relies on recruiting exceptional people. To meet such demanding levels of excellence, we seek individuals who possess the following characteristics:

- innovative thinking
- highest degree of integrity
- knowledge sharing philosophy
- value collaboration and teamwork
- pursue continuous learning and personal development
- enjoy a culture of entrepreneurialism and performance achievement take pride in the organization.

Position description:

We are seeking a dynamic fire protection professional to join our National Property Risk Control Practice. The consultant will manage consulting services for a portfolio

of industrial, retail and health care clients. Key consulting responsibilities will include:

- developing risk control strategies with executives and risk managers
- completing risk assessments and property risk engineering evaluations
- presenting insightful seminars and workshops
- advising clients how to successfully apply loss prevention best practices
- facilitating communication and solutions between clients and insurers
- developing fire protection solutions using NFPA and FM standards
- assisting clients with developing and implementing global, national and local property protection programs
- assisting in new business production efforts
- maintaining and enhancing client relationships.

The consultant will also serve as a technical resource in our national practice and collaborate with other consultants in this practice. Limited overnight travel is required.

We are a growth company that values and rewards innovation, entrepreneurship, and teamwork.

Location:

The consultant can be based in either our NYC office located at 1 World Financial Center, or our NJ office located at 25B Vreeland Rd. in Florham Park, NJ, depending on the candidate's preference.

Qualifications:

We welcome candidates with broker, insurer, or private sector experience. Candidates need to demonstrate a

successful track record of results in their discipline. The following qualifications apply:

- BS Engineering or related field with HPR training/experience
- 3 - 7 years minimum experience in HPR engineering with carrier/broker/industry
- P.E. (Professional Engineering) License in Fire Protection Engineering preferred
- EIT with plans for obtaining a P.E. is OK
- CFPS (Certified Fire Protection Specialist) is a suitable alternative minimum credential in lieu of a P.E., or willingness to obtain.
- Excellent communication skills
- Excellent technical report writing skills
- Computer proficiency
- Any experience with business continuity planning or industrial safety would be a plus.

Compensation:

We offer excellent salary and benefit packages commensurate with experience and qualifications.

Contact information:

For additional confidential information, please contact: **Joe.Stavish@willis.com**, or 973-410-4638

Confidential resumes may be forwarded to:

Joe Stavish, P.E.

N.A. Property Risk Control Practice Leader

Willis of New Jersey

25B Vreeland Road

Florham Park, NJ 07932



Investigation Into the Application of Duct Smoke Detectors in Heating, Ventilation and Air Conditioning Systems

Prepared for the Fire Detection Institute
By John M. Cholin, P.E., M.E.E., S.F.P.E
J.M.Cholin Consultants, Inc.
Part IV

Summary of Research Findings

Comparative Driving Forces

There was a concern that the pressurization produced by the fire constituted a driving force on the air in the HVAC system ductwork that was large compared to that produced by the HVAC system fan(s). If this were the case, the fire would overpower the HVAC system fans, rendering the interactive control of the HVAC fans superfluous. This suggested that considerable expense was being incurred for the installation and maintenance of duct smoke detectors that did not provide a commensurate benefit. Existing work by Klote & Milke and Tamura on the control of smoke in high-rise buildings did not explicitly deal with HVAC ducts and the relative driving forces acting upon the air in HVAC ducts produced by fires. Consequently, it was not known whether a fire of the size we generally expect to detect with duct smoke detectors could be detected.

It has been known for decades that there was the potential for the HVAC system to transport smoke throughout a building in the event of a fire. Consequently, NFPA 90A includes requirements for the shutdown of HVAC systems in the event of a fire.

There are two possible scenarios to consider relevant to the interaction of a building compartment fire and the HVAC system. The first is a fire occurring in a building compartment served by the HVAC system. In this case the smoke becomes entrained into the airflow in the return air ducts and smoke is pulled from the fire compartment into the system. Once in the system, there is the potential for that smoke to then be distributed into other compartments as part of the re-circulated air constituent of the HVAC system air volume.

The second scenario is one of the fire occurring in the HVAC system, such as a filter fire, or outside the building in close

proximity to the fresh-air inlet. In this case the smoke is pumped into the building compartments the HVAC system serves via the air supply ducts. Both of these scenarios result in the flow of smoke into compartments where there is no apparent indication of a fire, placing the occupants at risk of injury. Consequently, both scenarios demand some form of detection and interactive control of the HVAC system. Where the fire compartment is equipped with area detection, those compartment detectors provide the most effective detection of a fire occurring within that compartment. However, where area detection has not been installed throughout the building duct type smoke detectors are used to shut down the HVAC system. Duct type smoke detectors are also needed to prevent the system from filling occupied compartments with smoke from a fire occurring within the mechanical ventilation system, itself, such as a filter fire.

In order to justify the continued use of duct-type smoke detection for the control of HVAC systems, it must be able to provide a warning sufficiently early to prevent the spread of the smoke via the HVAC system. However, if the flows induced by the fire are sufficiently powerful in these early stages of the fire to obviate the effect of HVAC system shutdown, then the requirement for detectors is not justified. Consequently, this issue hinges upon a method for calculating airflows through the building at various fire sizes.

The calculation of airflow is based upon a simple relation:

$$Q = c(\Delta P)^{1/2} (A)$$

where Q is the mass flow, DP is the pressure differential and A is the equivalent cross-sectional area of the flow path. This is where the simplicity ends because the compartment is in a building with other compartments. The building often has many stories and is, of course, surrounded by the atmosphere. While the layman might think of a wall as being "air-tight"

the reality is very different. The walls, windows, doors and even roof of a building are leaky, and hence represent flow paths for air. Wind affects the air pressure on the outside of the building. Finally, the difference in temperature between the building interior and exterior make a substantial contribution to the pressure difference across a wall, and hence the leakage of air through that wall. Consequently, we cannot calculate the flow of air from one compartment in one part of a building without considering the pressure environment that building produces around the compartment in question. This necessitates that the analysis consider all of the contributors to the relative pressure in a compartment containing a fire.

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To be continued in the December issue of the Fusible Link

Meeting Dates/Programs 2007-2008

DATE	TOPIC
November 5, 2007	Cold Storage Warehouse Protection—New Technologies—Multiple Speakers—TBD
December 3, 2007	Pressure Reducing Valves in High Rise Buildings
January 7, 2008	WTC No. 7—How it was Rebuilt—Tom Kuhta and Dave Gluckman, Willis
February 4, 2008	International Building Code—Vinny Fichera, NFSA
March 3, 2008	Plastic Panels, an Update—Joe Janiga, FM Global
April 7, 2008	Seminar—Details to Follow
May 5, 2008	Internet Tools & Resources—Speaker to be announced
June 9	The Case for Automatic Sprinklers in Habitational Occupancies—Russ Fleming and Vinny Fichera, NFSA Annual Meeting—Election of Officers

Associated fire Protection

ROLAND STRATEN, P.E.

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FRANK SAVINO

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Glenn D. Buser, P.E.

201-891-1405
201-450-7559 (Cell)

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SLICER & ASSOCIATES
Fire Protection and Loss
Prevention Consulting

J. Sargent "Sarge" Slicer

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West Chatham, MA 02669-1647 Mobile 973-493-0369
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Member—SFPE & NFPA sargeslicer1@myibocs.com



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Notice: P.E. Candidates

Do you intend to take the P.E. Exam in fire protection Engineering next year? The benefits of professional licensure are well worth it. If so keep in mind that the NJ Chapter of the SFPE has the capacity to provide a P.E. Exam review program. In past years we achieved a 90% pass rate.

Last year three people contacted the Chapter in June requesting that we provide our review program. The Chapter members who serve as the mentors were unable to develop the preparatory materials on such short notice. It takes a substantial commitment of time to develop the preparatory materials and all of the mentors are by professionals in their own right. Consequently, the Chapter was unable to provide the program on such short notice for those candidates.

If you plan to take the P.E. exam in Fire Protection Engineering in 2008 and would like to participate in the NJ Chapter of the SFPE P.E. Exam Review Program please let us know no later than January 7, 2008. You should provide notice of your intent to participate in the review program by sending an email to John M. Cholin, P.E. at jmcholin@bellatlantic.net.



Permit# P00072
Lic # 154162

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3rd Floor
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Phone: (973) 541-6771
Fax: (973) 541-6909

MEETING NOTICE

Date: November 5, 2007

Place: Hanover Manor
16 Eagle Rock Avenue
East Hanover, NJ

Price: \$26.00

Dinner: 5:00-6:00 (Cash bar for mixed drinks)
Dinner at 6 PM

Speaker(s): Multiple Speakers - TBD

Topic: Cold Storage Warehouse Protection - New Technologies

Please note for this meeting:

All officers, directors and committee chairman are requested to attend a meeting at 4:00 p.m. at the Hanover Manor.

PLEASE COMPLETE AND RETURN WITH YOUR CHECK PAYABLE TO "SFPE NJ CHAPTER" TO:

Vicki Serafin
Affiliated FM
400 Interpace Parkway, Bldg C - 3rd Floor
Parsippany, NJ 07054-1196
vicki.serafin@affiliatedfm.com

OR PAY AT THE DOOR

NAME: _____

COMPANY: _____ TELEPHONE: _____



2007-2008 CHAPTER COMMITTEES

STANDING COMMITTEES

Program

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Consulting - Nick Chergotis & Peter Rullo

Arrangements

Vicki Serafin, Chairperson

Membership

John Cholin, Chairman

Nominating

Glenn Dietz, Chairman
Chuck Gandy
Glenn Buser

Scholarship Fund

Chuck Gandy, Chairman
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Joe Janiga, Chairman
John Warnet

Archivist

Rich Reitberger, Chairman
Nicole Davidowitch

Historian

Jim Tolos

Communications

Fusible Link—Brad Hart
Ana Crisostomo—Coordinator
Mailing/Automation/e-mail—Vicki Serafin, Chairperson

SPECIAL COMMITTEES

Bylaws

Jim Tolos, Chairman
Joe Janiga - Co-Chairman

Career Recruitment

Al Doport, Chairman
Glenn Deitz
Dave Gluckman

Golf Outing

Richard Reitberger, Chairman
Joe Janiga

Awards

Frank Savino, Chairman
Rich Reitberger

PE Examination

John Cholin, Chairman
Joe Janiga
Mike Newman
Chuck Gandy

Chapter Seminar/Field Trip

Richard Reitberger, Chairman
Dave Gluckman
Joe Janiga

Legislative

Rich Reitberger, Chairman
Vinnie Fichera
Jerry Naylis

Finance

Rich Reitberger - Chairman
John Cholin