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# Society of Fire Protection Engineers

## New Jersey Chapter

# FUSIBLE LINK

FEBRUARY 2008

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## President's Message



The topic of our January meeting was the rebuilding of the 7 World Trade Center building which was immensely informative. My thanks to Tom Kuhta of Willis for conducting this presentation to the membership.

Also, I would like to thank Joe Janiga for presenting the PowerPoint slides he developed titled "Reasons to Belong" to the NJ Chapter of the SFPE to the attendees of the Fire Facts Seminar #13 sponsored by City Fire Equipment Co., Inc. at Seton Hall on January 7.

Recently, the CPSC announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed.

**Name of Product:** Counterfeit Circuit Breakers labeled as "Square D"

**Units:** About 50,000

**Distributor/Retailer:** North American Breaker Co. Inc. (NABCO), of Burbank, Calif.

**Hazard:** The recalled circuit breakers labeled "Square D" have been determined by Square D to be counterfeit and can fail to trip when they are overloaded, posing a fire hazard to consumers.

**Incidents/Injuries:** None reported.

**Description:** The counterfeit circuit breakers are black and are labeled as Square D QO-series models 110, 115, 120, 130, 210, 215, 220, 225, 230, 235, 240, 250, 260, 280, 1515, 1520, 2020, 2125, 315, 340, 350, 360, and 3100. Actual Square D circuit breakers have (a) the amp rating written on the handle in white paint on the front of the breaker; (b) the Square D insignia molded onto the breaker side, and; (c) a yellow chromate mounting clip with half of the top of the clip visible. If your breaker, labeled as Square D, does not match this description, it could be counterfeit.

**Sold by:** NABCO, electrical distributors, and retailers nationwide from March 2003 through April 2006 for between \$3 and \$85.

**Manufactured in:** China

**Remedy:** Consumers should contact NABCO to determine if the breaker they have is counterfeit and to arrange for a free inspection and replacement or refund if necessary.

**Consumer Contact:** For additional information, contact NABCO at (866) 505-5851 from 8 a.m. to 5 p.m. PT, email the firm at [recall@nabreaker.com](mailto:recall@nabreaker.com), or visit the firm's Web site at [www.nabcorecall.com](http://www.nabcorecall.com) - this is not a Square D Company recall.

I look forward to seeing everyone at our next meeting on February 4, 2008.

David Gluckman  
NJSFPE Chapter President

## NJ SFPE Membership Meeting Minutes January 7, 2008

The January meeting was held at the Hanover Manor, our normal venue. Chapter President Dave Gluckman presided. The minutes of the December meeting and the Treasurer's report were read and accepted by the membership. Two new applications for membership were presented.

David Kurasz, Asst. Executive Director, NFSA applied as Chapter Supporter and Gennaro Giustra of FM Global applied as Chapter Member (he is a member of SFPE National). Both were voted on and accepted by the membership. Tom Kuhta of Willis was our guest speaker for the evening. Tom's presentation was on the

rebuilding of the World Trade Center No. 7 building which is now occupied. Tom briefed us on the unique design features of building construction, fire protection systems and equipment, fire and smoke detection systems and egress that were incorporated into the building.

## CAREER OPPORTUNITIES...

### 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

# CAREER OPPORTUNITIES... CONT'D

## Fire Protection Engineering/Property Risk Control Consultant Position

### 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.

*The Following is Part VI of this paper. The previous editions of the Fusible Link includes parts I-V*

The UMDFPE research shows that buoyancy effects can occur and conceivably affect detector performance when the detector is installed in a duct serving the fire compartment. However, when sampling tubes are mounted vertically the sample includes the upper portion of the duct where the smoke is concentrated and the effects of stratification due to differential buoyancy are cancelled out. If sampling tubes cannot be oriented vertically then the effects of thermal stratification can be minimized by locating the detector sampling tubes in the center of the upper half of the duct. It is important to keep in mind that mounting duct smoke detectors, centered in the upper half of the duct, is only valid when the detector is installed on a duct serving a single fire compartment, where the buoyancy exceeds the flow inertia of the air in the duct.

NRC selected a 6.4 meter (21 ft.) long section of duct adjacent to Measuring Station 2, having a cross-section of 1.7 meter (5.6 ft.) wide by 1.5 meter (5 ft.) high. Detectors were installed on the side of the duct along the duct centerline with horizontal sampling tubes and on the bottom of the duct, along the duct centerline, with vertical sampling tubes. The set-up is shown in Figure 18.

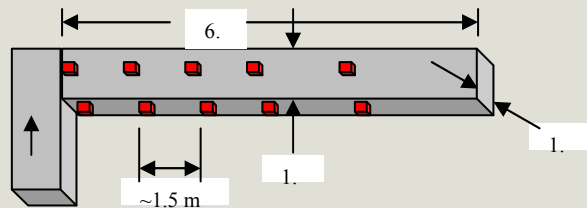


Figure 18: The Test set-up for the NRC Stratification Study

If the 1.7 meter width of the duct is used as the “diameter,” this duct provides approximately 4.3 duct diameters in length, less than that recommended by NFPA 72. Nevertheless, all of the duct smoke detectors in the test provided very similar response

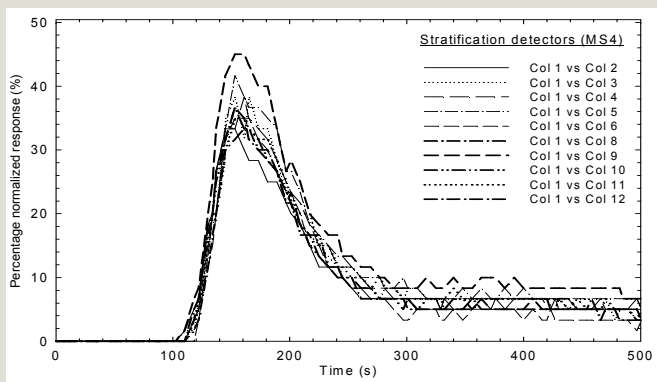


Figure 19: Detector Responses in Stratification Test Duct, Test 34.

This test data are from the ignition of a single office chair in the first floor fire test room. It shows very similar performance of all of the detectors on the duct, regardless of their location. This suggests that there is no justification for the 6 to 10 duct diameter rule in NFPA 72. It should be noted that the test location in the NRC test program was 10 stories above the fire test room. Consequently, the smoke had had ample opportunity to cool as it traveled from the fire test room (first floor) to the HVAC mechanical room (tenth floor) and there was no observable thermal stratification as observed in the work performed by UMDFPE.

### Detector Efficacy

There has been concern expressed in the past that current mechanical ventilating systems operate at flow velocities that are outside the range for which duct smoke detectors are tested and listed. The testing of duct smoke detectors by Underwriter’s Laboratories, Inc., includes five flow velocities: 1.52 m/sec (300 ft./min), 5.08 m/sec (1000 ft./min), 10.16 m/sec (2000 ft./min), 15.24 m/sec (3000 ft./min) and 20.32 m/sec (4000 ft./min). The UMDFPE team surveyed a total of 65 buildings in the Baltimore/Washington, D.C. area, recording the installation details regarding the duct smoke detectors. The measured velocities ranged from 405 ft./min (2.28 m/sec) to 8000 ft./min (437 m/sec), although all but two of the facilities operated below 4000 ft./min (218 m/sec), Figure 19, below, summarizes the air velocity data at the detector location.

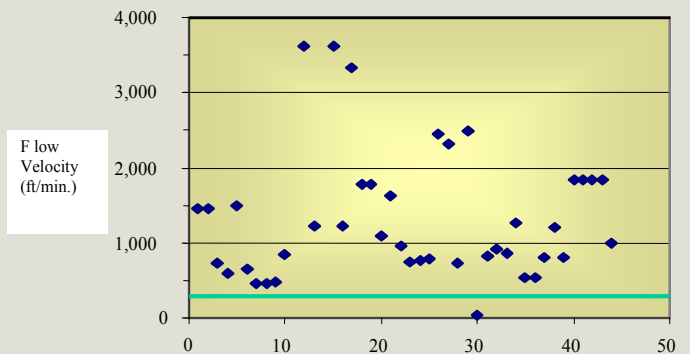


Figure 19: Measured Flow Velocity at Detector Location

The NRC team measured the response of duct smoke detectors as a function of system air velocity. The range of velocities NRC tested went from a low of 4.0 m/sec (787 ft./min) to 19 m/sec (3739 ft./min). Over this range, no significant variation in detector performance was observed.

During the survey, the location of the detector relative to upstream bends and changes in dimension or direction were also noted. Very few detectors were located in conformance with the recommendation in NFPA 72. The results are shown in Figure 20.

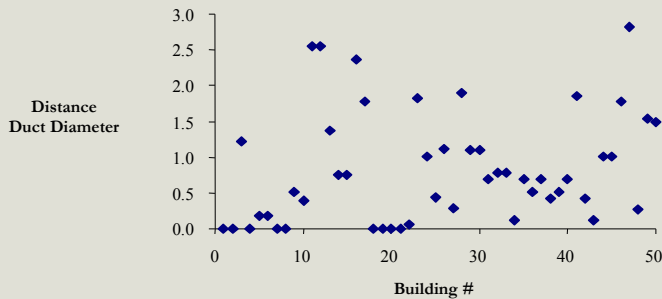


Figure 20: Distance Between Installed Duct Smoke Detectors and Upstream Component

### Conclusions

Through the combination and coordination of the research work of both the UMDPPE and the NRC teams the Fire Detection Institute was able to develop insights into the six issues outlined in Section 2.

### Comparative Driving Forces

The research showed that the driving forces, from a fire of the magnitude to which duct smoke detectors are intended to respond, are small compared to those of the mechanical ventilation system. Furthermore, since the mechanical ventilation system will spread smoke through a building faster than the passive forces of the stack, wind, and buoyancy effects, there is a compelling reason to shut down the mechanical ventilating system upon the occurrence of a fire. The use of duct smoke detectors is one means of detecting a fire for the purpose of HVAC system shutdown. Consequently, the current requirements for these devices should not be rescinded. A computational method was developed that accurately predicted the full-scale test. This method can serve as a template for the evaluation of various, real-world buildings to determine if and where HVAC shutdown will not contribute to the extension of available egress time in a performance-based design environment.

### Dilution Effects

Dilution of the smoke does occur. It is proportional to the ratio of the flow rate from the fire compartment to that of the rest of the inflows into the HVAC system. In this testing, a dilution ratio of 15:1 was observed. However, despite the dilution, commercially available duct smoke detectors are able to detect fires on the order of 200 kW, making them clearly capable of serving their intended purpose. When dealing with a detector whose output is linear with optical density, it is possible to compute the fire heat release rate at which an alarm will occur. A relation for doing so was developed. Unfortunately, the data

obtained suggests that many commercially available smoke detectors do not provide an output that is linear with optical density. Mass optical density appears to show promise as a smoke detector performance metric and should be investigated further.

### Smoke Aging Effects

The aging of smoke appears to begin almost immediately after it leaves the locus of the flame. Even in very short, 3 meter (9.8 ft.), ducts there is appreciable aging of the smoke. However, commercially available duct smoke detectors are capable of detecting smoke, even after very considerable aging, as it travels through the mechanical ventilation system.

### Effects of Filters

Filters have a serious effect on the performance of duct smoke detectors. Clearly, the location of the detector relative to the filter and the source of smoke must be considered during the design process. Where smoke detectors are installed downstream from filters, they should be deemed to serve the purpose of providing an alarm indication of the occurrence of a filter fire. They cannot be expected to also serve the purpose of providing detection for the return side of the system. Where return side detection is required, that requirement must be fulfilled with separate detectors from those monitoring the supply side, downstream from the filters. In order to be effective, the duct smoke detector should be located such that the filters are not between it and the source of smoke the detector is intended to detect.

### Effects of Stratification

When the mechanical ventilating system is exposed to smoke with a significantly higher temperature than that of the other air inside the duct, there will be thermal stratification due to the buoyancy of the smoke. This will tend to concentrate the smoke in the upper half of the duct. This effect is most severe where duct velocities are low. Stratification should be expected wherever buoyancy exceeds flow inertia. When the duct smoke detector is close to the fire compartment, this scenario is likely, and orienting the sampling tubes vertically in the duct can reduce the effect of this thermal stratification. In the alternative, locating the sampling tubes horizontally centered in the upper half of the duct could help improve detector response when compared to a detector mounted with horizontal sampling tubes located on the duct centerline. Where the fire compartment is far from the detector location, and the smoke is at or close to the average temperature in the duct, the thermal stratification effect was not observed.

There was no statistically valid effect of locating detectors far from upstream components as opposed to close to them. There does not appear to be any justification for the time-honored 6 to 10 duct diameter rule in NFPA 72. Duct smoke detectors can be mounted wherever they can conveniently obtain a cross-sectional sample of the air moving through the duct.

### Efficacy Versus Flow Velocity

The research showed that most detectors are installed in locations where the airflow velocity is within the range used by Underwriter's Laboratories, Inc., in the listing investigation. The performance of duct smoke detectors compared to optical

density and CO<sub>2</sub> concentration was confirmed to be uniform from 4.0 m/sec (787 ft./min) to 19 m/sec (3,739 ft./min). This does not cover the entire range used by U.L. (1.52 to 20.32 m/sec), but covered the majority of the velocities found in the field survey.

## **REFERENCES**

NFPA 90A, **Standard for the Installation of Air-Conditioning and Ventilating Systems**, 1996 Edition, National Fire Protection Association, Quincy, MA, 1996.

Klote, John H., P.E., Ph. D. and Milke, James A., P.E., Ph. D., **Design of Smoke Management Systems**, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA, 1992.

Tamura, George T, P.E., **Smoke Movement and Control in High-rise Buildings**, National Fire Protection Association, Quincy, MA 1994.

NFPA 72, **National Fire Alarm Code**, 1996 Edition, National Fire Protection Association, Quincy, MA, 1996.

NFPA 72, **National Fire Alarm Code**, 1999 Edition, National Fire Protection Association, Quincy, MA, 1999.

Klote, John H., P.E., Ph. D. and Milke, James A., P.E., Ph. D., **Design of Smoke Management Systems**, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA, 1992.

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Op Cit.

NFPA 72, **National Fire Alarm Code**, 2002 Edition, National Fire Protection Association, Quincy, MA, 2002, Section 5.7.2.1\*.

Mnizewski, K. and Waterman, T.E., "The Effectiveness of Duct-Installed Smoke Detectors in Two Different Ventilation System Configurations", IITRI Report for the GAS, February, 1979.

NFPA 72, **National Fire Alarm Code**, 1999 Edition, National Fire Protection Association, Quincy, MA 02269, Section 2-10.2\*.

NFPA 72, **National Fire Alarm Code**, 2002 Edition, National Fire Protection Association, Quincy, MA, 2002, Section 5.14.2\* (A).

McCarthy, Earl J., **Absorption and Emission of Atmospheric Gases – The Physical Process**, John Wiley & Sons, New York, NY, 1983.

Moore, Wayne D., P.E. and Richardson, Lee F., **National Fire Alarm Code Handbook**, 4th Edition, National Fire Protection Association, Quincy, MA 2002, Section 5.7.2.1\*.

DiNenno, Philip J., P.E., **SFPE Handbook of Fire Protection Engineering**, 2<sup>nd</sup> Edition, National Fire Protection Association, 1995, Chapter 3-4.

DiNenno, Philip J., P.E., **SFPE Handbook of Fire Protection Engineering**, 2<sup>nd</sup> Edition, National Fire Protection Association, 1995, Chapter 2-15.

Ibid

NFPA 72, **National Fire Alarm Code**, 1999 Edition, National Fire Protection Association, Quincy, MA 02269, Section A-2-10.5.2.

UL 268A, **Smoke Detectors for Duct Applications**, Underwriter's Laboratories, Inc., Northbrook, IL, 1995.

## **Educational Opportunities**

The AFAA NJ Chapter is holding a 1-day training course on Fire alarm design on February 21, 2007. Registration materials are attached.

The Chubb provides various levels of fire protection and property conservation courses at their Warren, NJ lab. Descriptions are attached.

# AUTOMATIC FIRE DETECTION AND FIRE ALARM SYSTEMS

SPONSORED BY:



## THE AUTOMATIC FIRE ALARM ASSOCIATION OF NEW JERSEY

February 21, 2008

Holiday Inn  
1000 Roosevelt Avenue  
Carteret, NJ (Off Exit 12 NJ Turnpike)

Go to [www.AFAANJ.org](http://www.AFAANJ.org) for directions and a map

This course describes fire alarm systems and components and the proper way to apply them to meet the requirements of NFPA 72 National Fire Alarm Code, 2002 edition and NFPA 70, National Electrical Code, 2002 edition. As you know the above referenced codes are being enforced here in New Jersey

THIS BASIC FIRE ALARM SEMINAR IS AN APPLICATION COURSE BENEFICIAL FOR NEW INSTALLERS, SALES PERSONNEL, SERVICE TECHNICIANS, & BUILDING & FIRE INSPECTORS INVOLVED IN ACCEPTANCE TESTING AND/OR PLANS REVIEW, OR IS USEFUL AS A REFRESHER FOR ANYONE INVOLVED WITH FIRE ALARMS.

### Course Materials -

1. Student workbook and handouts (provided)
2. Calculator, pencils and note paper (Student to provide)

#### Basic Fundamentals

Control panels, power supplies, initiating device, notification appliance and signaling line circuits; fire safety control functions; addressable, analog and multiplex systems; emergency voice/ alarm communication systems, survivability, and two-way emergency communications systems. Includes information on battery and voltage drop calculations.

#### Notification Appliances

Types of notification appliances (horns, speakers, strobes, annunciators, etc.) and their proper application. Discuss the nature of sound, ADA and ANSI/NFPA requirements for visible notification appliances. Demonstrate the use of a sound level meter.

#### Initiating Devices

Types of initiating devices (manual stations, heat and smoke detectors, beam detectors, radiant energy sensing fire detectors, sprinkler alarm and supervisory devices for wet, dry, pre-action and deluge systems), how they operate, and their proper application in accordance with the standards. Attendees will complete worksheets on heat and smoke detector spacing.

#### Fire Safety Control Functions

Control functions such as smoke door release, elevator recall, air handler fan shutdown, smoke control and management systems (smoke control systems in high rise buildings, covered malls and atriums). Duct detector applications and installation requirements, and monitoring of installation conductors for fire safety control functions.

### WHAT DOES IT COST?

• AFAANJ, NJBFAA members and all government employees -	1-2 attendees	\$175.00 each
	3+ attendees	\$150.00 each
• Non-members	1-2 attendees	\$275.00 each
	3+ attendees	\$250.00 each

Registration fee includes a student workbook, coffee and lunch on day of the seminar. All those that attend this seminar are invited to stay for the General AFAANJ meeting that begins at 6:00 PM at no charge, a \$25.00 value and more CPDs

Ninety-eight to ninety-nine percent of previous attendees have indicated they "would recommend to others" and they "received fair value for the money spent and information received."

**SEMINAR INFORMATION**

WHEN: 8:00 am to 4:00 pm  
 Thursday - February 21, 2008

WHERE:

Holiday Inn  
 1000 Roosevelt Avenue  
 Carteret, NJ  
 732-541-9500

Register online at [www.afa.org](http://www.afa.org) through our secure server and pay by credit card!



Or

Register by mail and pay by check!

Please make all checks payable to:

AFAA NJ  
 c/o Meadowlands Electronics  
 P. O. Box 4286  
 195 Allwood Road  
 Clifton, NJ 07012  
 Fax: 973-472-3332



**REGISTRATION FORM FOR AUTOMATIC FIRE DETECTION AND FIRE ALARM SEMINAR**

Please type or print:

Organization \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Credit Card No. \_\_\_\_\_ Exp. Date \_\_\_\_\_

Cardholder Name (please print) \_\_\_\_\_

Attendee (s) \_\_\_\_\_

Name \_\_\_\_\_ e-mail address \_\_\_\_\_

Name \_\_\_\_\_ e-mail address \_\_\_\_\_

Name \_\_\_\_\_ e-mail address \_\_\_\_\_

AFAA, AFAANJ, NJ & NY SFPE & NJBFAA members and government employees 1-2 attendees from the same company - \$175 each  
 3+ attendees from the same company - \$150 each

Non-members - 1-2 attendees from the same company - \$275 each  
 3+ attendees from the same company - \$250 each

Don't delay! Registration is limited to 40.

REGISTRATION FEES MUST BE PAID IN FULL PRIOR TO SEMINAR.  
 NICET information can be downloaded from their web site at [www.nicet.org](http://www.nicet.org).

Cancellation and refund policy:

A full refund of the seminar registration fee may be obtained provided AFAANJ receives written notification at least 7 days prior to the start of the seminar. All other cancellations will be subject to a \$100 cancellation fee. "No-shows" are ineligible for refunds. Special circumstances will be handled on a case by case basis. AFAANJ seminars are subject to cancellation due to low registrations. AFAANJ cannot be responsible for losses resulting from the cancellation of any seminar.  
 Download additional forms at [www.AFAANJ.org](http://www.AFAANJ.org)

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[ecamm@rjagroup.com](mailto:ecamm@rjagroup.com)

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# Loss Prevention School Seminar Registration

Company: \_\_\_\_\_ Policy # \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Email: \_\_\_\_\_ Telephone: \_\_\_\_\_

*For additional participants, attach a sheet with contact information for each person.*

Module 1	Water Supplies & Sprinkler Systems	1 day	<input type="checkbox"/>	03/31/2008	or	<input type="checkbox"/>	09/22/2008
Module 2	Dry Pipe, Deluge and Pre-Action Sprinkler Systems	1 day	<input type="checkbox"/>	04/01/2008	or	<input type="checkbox"/>	09/23/2008
Module 3	Automatic Fire Pumps	1 day	<input type="checkbox"/>	04/02/2008	or	<input type="checkbox"/>	09/24/2008
Module 4	Maintaining Water-Based Fire Protection Systems	2 days	<input type="checkbox"/>	04/03/2008	or	<input type="checkbox"/>	09/25/2008
Module 5	Fire Detection & Alarm Systems	1 day	<input type="checkbox"/>	05/12/2008	or	<input type="checkbox"/>	11/10/2008
Module 6	Warehouse Fire Protection	2 days	<input type="checkbox"/>	05/13/2008	or	<input type="checkbox"/>	11/11/2008
Module 7	Sprinkler Plan Review	2 days	<input type="checkbox"/>	05/15/2008	or	<input type="checkbox"/>	11/13/2008

1 day = \$350  
 2 days= \$680  
 3 days= \$990  
 4 days= \$1260  
 5 days= \$1450

Number of Days: \_\_\_\_\_ Cost per Person: \_\_\_\_\_

Number of Participants: \_\_\_\_\_ Total Cost: \_\_\_\_\_

*Chubb policyholders receive a 20% discount*

Registration can be reserved by submitting form to:

Email: [slee@chubb.com](mailto:slee@chubb.com)

or

Fax: 908.903.7187

*Payment by check or purchase order must be received at least 14 days prior to the seminar to remain enrolled. Exceptions can be requested by contacting Sam Lee at [slee@chubb.com](mailto:slee@chubb.com) or 908-903-7172.*

To complete enrollment, submit the form and payment to:

**Chubb Services Corporation**  
 15 Mountain View Road  
 Mail Stop #E100  
 Warren, NJ 07059

*Make checks payable to Chubb Services Corporation. Credit card payments are not accepted. Upon receipt, a paid invoice will be returned.*

**ON-SITE EQUIPMENT**

- Enclosed sprinkler activation area
- 2 wet pipe sprinkler risers
- 2 dry pipe sprinkler risers
- 2 interlocked pre-action sprinkler risers
- Deluge valve riser
- Cycling on/off sprinkler riser
- Fire detection devices: infrared, ionization, photoelectric, thermal, ultraviolet
- Indoor and outdoor fire hydrants
- Electric booster fire pump
- Diesel vertical turbine fire pump
- Playpipes
- Fire hoses
- Pitot gauges
- Rolling steel fire door
- Portable fire extinguishers

The New Jersey Division of Fire Safety awards continuing education credit for these modules, toward maintaining Fire Inspector and Fire Official certification as part of the Uniform Fire Code.



For more information, contact Sam Lee at [slee@chubb.com](mailto:slee@chubb.com) or 908-903-7172, or visit [www.chubb.com/lcu](http://www.chubb.com/lcu)

2008 SCHEDULE		
3/31	MODULE 1	WATER SUPPLIES & SPRINKLER SYSTEMS
4/1	MODULE 2	DRY PIPE, DELUGE & PRE-ACTION SPRINKLER SYSTEMS
4/2	MODULE 3	AUTOMATIC FIRE PUMPS
4/3	MODULE 4 PART 1	MAINTAINING WATER-BASED FIRE PROTECTION SYSTEMS
4/4	MODULE 4 PART 2	MAINTAINING WATER-BASED FIRE PROTECTION SYSTEMS
5/12	MODULE 5	FIRE DETECTION & ALARM SYSTEMS
5/13	MODULE 6 PART 1	WAREHOUSE FIRE PROTECTION
5/14	MODULE 6 PART 2	WAREHOUSE FIRE PROTECTION
5/15	MODULE 7 PART 1	SPRINKLER PLAN REVIEW
5/16	MODULE 7 PART 2	SPRINKLER PLAN REVIEW
9/22	MODULE 1	WATER SUPPLIES & SPRINKLER SYSTEMS
9/23	MODULE 2	DRY PIPE, DELUGE & PRE-ACTION SPRINKLER SYSTEMS
9/24	MODULE 3	AUTOMATIC FIRE PUMPS
9/25	MODULE 4 PART 1	MAINTAINING WATER-BASED FIRE PROTECTION SYSTEMS
9/26	MODULE 4 PART 2	MAINTAINING WATER-BASED FIRE PROTECTION SYSTEMS
11/10	MODULE 5	FIRE DETECTION & ALARM SYSTEMS
11/11	MODULE 6 PART 1	WAREHOUSE FIRE PROTECTION
11/12	MODULE 6 PART 2	WAREHOUSE FIRE PROTECTION
11/13	MODULE 7 PART 1	SPRINKLER PLAN REVIEW
11/14	MODULE 7 PART 2	SPRINKLER PLAN REVIEW



Chubb Services Corporation is an indirect wholly owned subsidiary of The Chubb Corporation. This literature is descriptive only.

**CHUBB SERVICES CORPORATION**

Warren, NJ 07059

[www.chubbservices.com](http://www.chubbservices.com)

Form 37-01-0052 (Rev. 9/07)



LOSS CONTROL UNIVERSITY

**HANDS-ON TRAINING**



**AT A GLANCE**

Chubb Loss Control University offers a modular training series for fire protection. It provides a comprehensive understanding of property conservation methods; the latest codes, standards and regulations; and best practices for selecting, testing and maintaining fire protection systems.



Each module is either one or two days in duration. They can be taken individually or together — they are offered sequentially in 5-day blocks. The cost of a one-day module is \$350 and the cost of a two-day module is \$680. Discounts are offered when enrolling in multiple modules, based on the total number of days:

1 day	\$350
2 days	\$680
3 days	\$990
4 days	\$1260
5 days	\$1450

Chubb policyholders, appointed agents and brokers, code enforcement officials, and fire fighters receive an additional 20% discount.

- 1 WATER SUPPLIES & SPRINKLER SYSTEMS**  
Understanding water supplies and sprinkler system components is crucial to suppressing and controlling fires. Learn proper maintenance and testing practices to significantly reduce the potential for a loss.
- 2 DRY PIPE, DELUGE & PRE-ACTION SPRINKLER SYSTEMS**  
These systems have additional components and some are triggered by fire detection systems. Learn their unique testing and resetting practices to maintain peak operation.
- 3 AUTOMATIC FIRE PUMPS**  
Fire pumps provide water flow and pressure necessary for an automatic sprinkler system to defend against fires. Don't wait for a fire to find out if the fire pump will operate when the sprinkler system is activated — it will be too late.
- 4 MAINTAINING WATER-BASED FIRE PROTECTION SYSTEMS**  
Develop a comprehensive game plan to maintain the operational status of water-based fire protection equipment including: standpipes and hose systems, fire pumps, water storage tanks, fire hydrants, valves and connections.
- 5 FIRE DETECTION & ALARM SYSTEMS**  
Selecting the best choice for a fire detection system, coupled with proper maintenance and testing, can alert occupants, trigger a fire suppression system and advise the authorities, ultimately reducing injuries and damage.

- 6 WAREHOUSE FIRE PROTECTION**  
Unravel the issues behind NFPA standards for protection of storage areas. Learn how commodity class, storage methods and height impact fire protection needs for warehouses.
- 7 SPRINKLER PLAN REVIEW**  
Learn to evaluate sprinkler system design based on pipe sizing, sprinkler head selection, occupancy classifications, hydraulic calculations and more. Compare data with consensus standards to determine acceptability.

**HANDS-ON EXPERIENCE**

Participants are given an excellent opportunity to gain the experience needed to successfully operate and manage their own loss prevention program. These programs are truly hands-on, using the latest apparatus and operational techniques. Practical exercises give application to loss prevention theories.

This training series is an excellent program for:

- architects
- authorities having jurisdiction
- facility and maintenance staff
- fire department personnel
- fire protection system contractors
- loss control professionals
- code enforcement officials

# Meeting Dates/Programs 2007-2008

DATE	TOPIC
February 4, 2008	International Building Code—Gary Lewis, Building Code Official—City of Summit, NJ
March 3, 2008	Plastic Panels, an Update—Joe Janiga, FM Global
April 22, 2008	Seminar—The latest in detection technologies
May 5, 2008	Internet Tools & Resources—Todd Vasquez and Rich Reitberger, FM Global
June 9	The Case for Automatic Sprinklers in Habitational Occupancies—Russ Fleming and Vinny Fichera, NFSA Annual Meeting—Election of Officers
June 23	Joint NJ/NY Golf Outing to benefit Scholarship Fund



**John M. Cholin P.E., S.F.P.E.**

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 Fire Protection Engineering and Consulting Services  
 101 Roosevelt Drive, Oakland NJ 07436 USA  
 Telephone: 201-337-8621 Fax: 201-337-5603

**SLICER & ASSOCIATES**  
 Fire Protection and Loss  
 Prevention Consulting

**J. Sargent "Sarge" Slicer**

P.O. Box 1647 Office 508-945-5074  
 West Chatham, MA 02669-1647 Mobile 973-493-0369  
 VM & Fax 866-395-6172  
 Member – SFPE & NFPA sargeslicer1@myibocs.com

## 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](mailto:jmcholin@bellatlantic.net).



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**Glenn D. Buser, P.E.**

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 201-450-7559 (Cell)

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Permit# P00072  
 Lic # 154162

**CITY FIRE EQUIPMENT CO., INC.**

**Paul J. Mc Grath**  
 President  
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Parsippany, NJ 07054-1196  
Phone: (973) 541-6771  
Fax: (973) 541-6909

## MEETING NOTICE

**Date:** February 4, 2008

**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):** Gary Lewis, Building Code Official - City of Summit, NJ

**Topic:** International Building Code

**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.

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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**

Ed Armm, Chairman  
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  
Ed Armm  
Mike Machette  
Rich Reitberger  
Jim Tolos

#### **Auditing**

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