

FLASHPOINT

PHILADELPHIA - DELAWARE VALLEY SFPE CHAPTER

DECEMBER MEETING

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DATE: DECEMBER 13, 2016
 LOCATION : JACOBS ENGINEERING GROUP THREE TOWER BRIDGE, SUITE 3000, CONSHOHOCKEN, PA

TIME:
FELLOWSHIP: 5:30PM
DINNER: 6:00PM

THIS MONTHS PRESENTATION WILL BE ON FIREFIGHTING FOAM AND ENVIRONMENTAL CONCERNS. THE PRESENTER WILL BE CHAPTER MEMBER JIM SCHWANDER. JIM IS THE EASTERN REGION FOAM SYSTEMS PRODUCTS MANAGER FOR SOLBERG FOAM.

COST: \$25.00 FOR DINNER AND PROGRAM

PLEASE HAVE ALL RESERVATIONS IN BY 12:00 NOON, FRIDAY, DECEMBER 9, 2016.

PLEASE RSVP WITH LOU ANNAS, VIA EMAIL AT LAnnas@bearindustries.com



SEMINAR AND TRADE SHOW

The Philadelphia-Delaware Valley Chapter will be hosting a Seminar and Trade Show on April 27, 2017 at the DoubleTree Valley Forge, located at 301 W. Dekalb Pike in King of Prussia. This all-day event will include 25 vendors and 12 presentations to allow licensed members to obtain up to 6 PDH hours of continuing education credit. All proceeds will go toward the John D. Cook III and Philip Gaughan Scholarship Funds. Planning for this event is ongoing, but the date and location are booked. Please plan to attend to network with your friends and colleagues, learn from an excellent lineup of experts, and support our Chapter.



PRESIDENT'S SPARK

The November meeting was held at Jacobs. It was not held at the normal date to account for the National elections. Next month's meeting will be at the normal date - Second Tues for December at Jacobs. The speaker for November was Rick Schartel. Rick is retired from PP&L and a long time Chapter member. Rick had a great presentation on transformer fire protection. We learned some very valuable information on how to realistically fight a transformer fire accounting for environmental issues. Sometimes the best way to fight a fire is to protect exposures and allow the fuel to exhaust itself. The food was great as always and we had wonderful attendance. Our members voted for the Delaware Valley Engineer of the Year this month as well. This award will be presented during Engineers week by the Engineers Club. Jeff LaSalle is in the process of leading a committee for a spring trade show. This will be our first trade show in many years and is a quite exciting event. All our members are called on to support Jeff as much as possible in this effort.

DELAWARE VALLEY ENGINEER OF THE YEAR

The Engineers' Club has opened the nomination process for various awards that will be presented during 2017 Engineers Week.

Three candidates for 2017 **Delaware Valley Engineer of the Year** have been nominated by engineering-related technical societies in our area:

Deborah A. Grubbe, PE – nominated by the American Institute of Chemical Engineers (AIChE), Delaware Valley Section

Ralph D. Masiello, PhD – nominated by the Institute of Electrical and Electronics Engineers (IEEE), Philadelphia Section

John A. Nawn, PE – nominated by the Pennsylvania Society of Professional Engineers (PSPE), Delaware County Chapter

Nominations for the Delaware Valley Engineering Hall of Fame, Outstanding Service Awards, Engineers Week Scholarships, Student Papers, High School Students and Teacher Awards are being accepted (more information and requirements can be found at www.dvewc.org). The deadline for Hall of Fame, Outstanding Service, Scholarship and Student Paper submissions is **November 16**. Nominations for High School Students and Teacher Awards are due by **December 7**. These awards will be presented during Engineers Week.

Please visit www.dvewc.org for more information on E-Week.

We look forward to your nominations and participation.

NFPA JOURNAL 13R SPRINKLER SYSTEMS

AUTHOR: ROBERT SOLOMON (NOV. 2016)

“MY FAMILY AND I ARE SAFE—and that’s all that matters.” We often hear these words from survivors following an earthquake, tornado, car accident, or other event where the outcome could have been much different. This also includes fires that occur in the places where we work and live.

Maintaining the safety of occupants and first responders is the primary goal of the codes and standards that regulate the built environment. That goal, with respect to fire protection and fire safety, is achieved through a mix of elements that govern building construction, early detection and alarm, and automatic sprinkler systems. Redundancies and features are balanced to avoid overreliance on any one system or feature in order to achieve life safety.

This balance has been under scrutiny over the last 10 years, no more so than following the January 2015 fire at the Avalon on Hudson apartment complex in Edgewater, New Jersey. According to officials, the fire began accidentally as maintenance workers were making repairs and spread rapidly through the unsprinklered parts of the four-story structure, including floor trusses and attic spaces, growing into a massive blaze. Some 500 responders from 35 towns converged on the fire, which took more than 15 hours to contain and eventually destroyed 240 of the 408 units in the complex. More than 500 residents lost their homes, while another 500 were temporarily displaced. A few minor injuries were reported, but no fatalities. Published loss data from the fire has ranged as high as \$80 million.

One of the notable features of the fire was that it destroyed housing widely described as “luxury.” With the Manhattan skyline as a backdrop, the upscale apartments—one-bedroom, one-bath units at Avalon rented for nearly \$2,700 per month—provided a range of amenities and safety features, including fire protection via a sprinkler system designed to meet the requirements of [NFPA 13R, Installation of Sprinkler Systems in Low-Rise Residential Occupancies](#). Following the fire, State Assemblyman John Wisniewski, chair of New Jersey’s Fire Safety Commission, commented on the facility’s sprinkler system for a New York television station. “This, I’m told, was a system designed to give people time to get out but not necessarily preserve the structure,” he said. “We have to ask the question, should it have been a more robust system?”

An equally important question centered on the fact that the fire occurred late in the afternoon on a workday when many of the residents weren’t home. While it is only speculation, how different would the outcome have been if the fire occurred in the overnight hours when most residents would’ve been home and asleep? The Edgewater fire and other recent incidents like it announced that the time had come for a closer examination of these fires and the questions they raise. When codes allow the use of NFPA 13R systems, for example, how much protection should those systems provide to preserve building contents and property? As long as the trends show we are doing better at protecting residents and occupants, specifically in the multifamily and residential environments, should that be good enough?

These were among the questions posed at the [Life Safety Sprinkler System Challenge Workshop](#), an event hosted by NFPA last December and attended by an active group of stakeholders that included authorities having jurisdiction (AHJs), fire service members, contractors, owners’ representatives, consultants, and insurance organizations. With an acknowledgment from all involved that the types of fires being discussed are the exception and not the rule, the workshop set out to address the performance metric for the condition in sprinkler-protected buildings us-

CONTINUED ON NEXT PAGE...

When the first edition of NFPA 13R was issued in 1989, it was anticipated that as new multifamily residential construction grew, and as the building and life safety codes began to mandate sprinkler systems that complied with the new NFPA 13R standard, it was inevitable that there would be certain fires where the full life safety benefit of the sprinkler system would be achieved but significant property damage would also occur. It is also possible that we will see a fatality occur at some point in a fire of this type. Since the 1990s, coordinated efforts by AHJs, the fire service, and insurance interests have moved to integrate NFPA 13R as a reference document in the codes and as an alternative to full NFPA 13 systems. The multifamily housing industry has been supportive of this effort as well.

While the standard emphasizes its ability to provide life safety protection, it also states that it will provide improved protection against property damage. The balancing act in achieving these two goals is to ensure that sprinklers are installed in areas where a high percentage of fatal fires originate in this environment while allowing the omission of sprinklers from the areas where that probability is much lower. Construction features and safety measures such as draft stops and fire-rated construction can help contain or control fires that get into these unprotected areas, but that isn't always the case. Fireground tactics and safety concerns of first responders might be viewed differently—that is, from a more defensive firefighting approach—if they know the fire involves a building protected by an NFPA 13R sprinkler system. Firms that insure the building on behalf of the property owner and manager may go so far as to consider the building unprotected. And finally, what might residents think if their apartment amenity checklist indicates the building is equipped with a sprinkler system not necessarily designed to protect the entire structure?

Further complicating this discussion is the expanded scope and use of NFPA 13R beyond its original four-story limit that has taken place over the past 20 years—in code parlance, this may be referred to as “scope creep.” Four-story residential apartment buildings composed extensively of wood construction are now being built on top of one-story concrete pedestals, resulting in five-story buildings. An overall maximum building height of 60 feet is imposed on this construction, but this combination of stories and maximum height is different from when the standard was first developed. Add to this list the ever-expanding use of engineered wood structural systems, along with synthetic furnishings that have been found to increase the growth of fires, and the already complex discussion over NFPA 13R expands to include fire dynamics, probability, and risk assessment.

While extreme positions from “everything is fine, don't change it” to “get rid of NFPA 13R” were among the individual recommendations put forth at the NFPA workshop, the key recommendations fell somewhere in between. A recurring theme had to do with development of better or more refined data with respect to helping everyone understand the magnitude of the problem. While events such as the Edgewater fire happen on occasion, they are the clear exception. These fires also attract national attention, igniting the debate about the effectiveness of NFPA 13R systems, construction materials and techniques, and even enforcement of established code provisions.

Our current data collection models and investigation reports are directed more toward events where something goes wrong rather than when something goes right. As one of the workshop's breakout groups mentioned, “We don't see studies about how many airplanes don't crash,” just as we don't see how many lives have been saved due to the installation of NFPA 13R sprinkler systems. Details about the extent that a building was or was not in compliance with locally adopted codes, details on building construction types, and the overall accuracy of information being reported are among the challenges to help improve the data reporting and analytics.

READ MORE: <http://www.nfpa.org/news-and-research/publications/nfpa-journal/2016/november-december->

ADVANCED SMOKE DETECTION INNOVATIONS— ADDRESSING COMMON CHALLENGES (DECEMBER 16, 2016 1:00PM)

In today's environment organizations must cope with many challenges ranging from increased operational costs, reliability of services, insurance costs, avoidance of incidents, increased frequency of accident, to regulatory compliance.

A fire event, even small in nature, can have detrimental consequences threatening life safety and continuity of business. Understanding that fires can and will happen, an essential element of fire protection is of course automatic fire detection. That is, the ability to detect a fire and alert personnel before consequential impact to occupants, assets, and function of the organization occurs. Smoke detection is often regarded as the first line of defense and is generally responsible for initiation of other sequences intended to control the spread of fire.

Over the decades there has been significant advancements in smoke detection technologies with innovations continually evolving to meet both the articulated and unarticulated needs of the market. Today some of our toughest challenges with respect to operating performance and application can now be answered through the use of these new innovations. This presentation takes a close look at various aspects of traditional spot-type and aspirated-type technologies mutually exclusive in nature but when combined form an advanced smoke detection solution having attributes that solves challenges across many types of environments. One such technology advancement now available on the market sets out to overcome challenges with respect to:

1. Supervision – providing true end to end supervision for assured detection performance
2. Maintenance – being automatic assuring uninterrupted detection performance
3. Installation – being flexible, simple and affordable
4. Retrofit – being flexible and compatible across all building system platforms
5. Accessibility – without difficulty and without interrupting operations
6. Cost – being lower across life of installation
7. Intelligence – providing more information about the physical environment so that personnel can make informed decisions

Throughout the presentation we will explore these various attributes through a series of case studies showing real applications with real results.

SHOULD NFPA CREATE A NEW STANDARD ON ACTIVE SHOOTER INCIDENT RESPONSE (NFPA NOV. 2016)

The National Fire Protection Association (NFPA) Standards Council is in receipt of a New Project Initiation Request for the development of an ANSI Accredited Standard addressing preparedness and response to active shooter scenarios and incidents. The request seeks an NFPA standard to address appropriate training, responder interagency coordination protocol, and the identification of minimal personal protective equipment appropriate for responders to active shooter incidents. If the New Project Initiation is ultimately approved by the Standards Council, a new Technical Committee may be established and charged with the development of appropriate requirements related to active shooter incident preparedness and response. Activities within the scope of the Technical Committee are anticipated to focus on:

- Active shooter incident training for responders;
- Personal protective equipment appropriate for responding to active shooter scenarios;
- Response protocol and procedures across multiple responder segments; and
- Measurable operational objectives.

NFPA is currently soliciting comments from interested organizations and individuals to gauge whether support exists for standards development addressing preparedness and response to active shooter incidents.



FLASHPOINT

“The purpose of FLASHPOINT is to provide a forum for the transfer of information between members of the Philadelphia-Delaware Valley Chapter of Fire Protection Engineers (SFPE) and to give the chapter visibility.

Newsletter/Publicity Committee:

Dyllon Slatcher

Information for Publication can be submitted to: Dyllon Slatcher

EMAIL:

dslatcher@OliverFPS.com

This newsletter is published 9 or 10 times per year (September through June) and received as part of membership of the chapter. Membership dues are \$25.00 Collected annually in the fall each year. For an application of membership please contact: **Lou Annas**
lan-nas@bearindustries.com

VISIT OUR WESITE

AT:

www.sfpephiladelphia.org

Articles written are the views of the Author and not necessarily those of the

December 2016

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11	12	13 PHILA- DELVAL MTG.	14	15	16	17
18	19	20 BERKS ASCET MTG.	21 DEL- AWARE AS- CET MTG.	22	23	24 BEGIN- NING OF HA- NUKKAH
25 CHRISTMAS	26 BEGIN- NING OF KWANZAA	27 PHILA- DELPHIA ASCET MTG	28	29	30	31NEW YEARS EVE

- DECEMBER 7: SOUTH JERSEY ASCET MEETING
- DECEMBER 13: PHILADELPHIA– DELAWARE VALLEY SFPE MEETING
- DECEMBER 20: BERKS ASCET MEETING
- DECEMBER 21: DELAWARE ASCET MEETING
- DECEMBER 24: FIRST NIGHT OF HANUKKAH AND CHRISTMAS EVE
- DECEMBER 25: CHRISTMAS DAY
- DECEMBER 26: BEGINNING OF KWANZAA
- DECEMBER 27: PHILADELPHIA ASCET MEETING
- DECEMBER 31: NEW YEARS EVE

MISSION STATEMENT



**Society of Fire
Protection
Engineers**

The Philadelphia/Delaware Valley Chapter purpose is to advance the art and science of fire protection engineering and its allied fields, for the reduction of life and property loss from fire, to maintain high ethical standards on engineering among its members and to foster fire protection education.

Recognition of fire protection engineering as a discrete engineering discipline is a prime goal. Engineering disciplines exist because there is a special body of knowledge based on the fundamentals of mathematics, physics, chemistry, engineering science and economics.

The chapter strives to facilitate sharing of sound engineering experiences and knowledge between its members and the fire protection community in general with an active program of education and scholarship activities.

We're on the web at
www.sfpephiladelphia.org

PHILA · DELAWARE
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E-mail: dslatcher@OliverFPS.com



For the third time in two months, Wilmington firefighters will honor the death of another colleague killed in a deadly Canby Park rowhome blaze in late September.

Funeral services for Senior Firefighter Ardythe Hope will be held Saturday at the Chase Center on the Riverfront along Justison Street. A public viewing will begin at 10 a.m. and last until noon. A public funeral and memorial will follow at 1 p.m. Saturday.

Hope's family will hold a reception at the Chase Center directly after the service. Fire apparatus, pipe bands and honor guards will again partake in the funeral services to honor the Line of Duty Death.

The funeral marks the end of Hope's more than 60-day battle at Crozer-Chester Medical Center, where she was hospitalized for her injuries following the blaze. The 48-year-old woman had burns on more than 70 percent of her