

Flashpoint

Phila - Delaware Valley SFPE



March Meeting Information

Date: Tuesday March 8, 2016

Place: Jacobs Engineering Group Three Tower Bridge Suite 3000 Conshohocken, PA

See Page 6 for directions

5:30 PM: Fellowship Time

6:00 PM: Dinner

Dinner Program:

In recognition of the 25th anniversary of the One Meridian Plaza fire in Philadelphia we will have an open forum discussion of this tragic event, with emphasis on failures, lessons learned, and a review of high-rise building fire safety concerns. The discussion will be moderated by Jeff LaSalle.

Don't forget to make your reservation by Friday March 4 and bring an associate from your company!

Cost: \$25.00 for dinner & program

Reservations: By 12 noon, Friday, March 4, 2016

Reserve with:

Lou Annas by E-mail:
lannas@bearindustries.com
or Fax: (302) 368-9217



Volume 21, Issue 7
March 2016

Inside this issue:

<i>President's message</i>	2
<i>Exit Sign Study</i>	2
<i>Exit Sign Study</i>	2
<i>Slots in trapeze Hangers</i>	3
<i>Research on Sloped Ceilings</i>	4
<i>Calendar</i>	5
<i>Historic Fires</i>	6

Special points of interest:

- *The NFPA conference and expo will be held June 13-16 in Las Vegas.*
- *The SFPE North American Conference will be held Sept. 25-30 in Denver, CO.*

Nominations are being accepted

Nominations for the 2016-2017 year are due. If you are interested in running for a position, please contact Phil Sconyo: phiscon@verizon.net. Elections are held at the annual meeting held on May 10, 2016. The chairman of the nominating committee is Phil Sconyo.

Additional Nominations can be made in accordance with Article VIII, Section VIII-5 of the By-laws and must be received by the Secretary by April 12, 2016. Nominations should be sent to Jay Stough, Secretary at 209 Mechanic St., Doylestown, PA 18901 or faxed to him at 215-345-9357 or emailed to [Jay Stough](mailto:Jay.Stough@sfpe.org)



FLASHPOINT

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

Newsletter/Publicity Committee:

Jay Stough
Information for publication can be submitted to: **Jay Stough**

Email: jays@tilleyfire.com

This Newsletter is published 9 or 10 times/year (September through June) and received as part of membership of the Chapter. Membership Dues are \$30.00 collected annually in the Fall of the Year. For an Application of Membership contact: **Lou Annas**
lannas@bearindustries.com

Visit our web site at:
www.sfpephiladelphia.org

Articles written are the views of the Author and not necessarily those of the Philadelphia-Delaware Valley Chapter of SFPE. ❖



President’s Spark by Bob Moser, PE

We met on a blissful snowy evening at Jacobs in February. We had about 25 members join us, which is great taking the conditions into account. A hardy thanks goes out to all those who braved the snow. Jacobs new security protocol was a challenge, but we dealt with it just fine. I will be greeting everyone at the door for each meeting. We saw a great presentation with lots of real life examples by Jeff Kochelek. The presentation was regarding corrosion in sprinkler systems which we have all seen as an issue. Dry systems are particularly problematic. It was a very informative presentation. I look forward to our next meeting and hope that snow will not be in the forecast.

Bob Moser

Human Perceptions of Exit Signs During Building Evacuations by Robert C. Till, Ph.D., P.E.

Pedestrian simulation and crowd modeling techniques are widely used in the planning and design of structures to increase their level of safety as well as evaluate the level of safety in an existing structure. These models were developed using research regarding pedestrian speeds, the relationship between pedestrian flow and density, and critical density thresholds. While these models are useful for examining pedestrian spaces, they generally do not take into account environmental factors that could influence pedestrian movement such as signage and general route choice decisions. For example, they do not always predict 1) how pedestrians actually behave when searching for the nearest exit, 2) when they take cues from each other or 3) if they follow signs or use some other unknown navigation method. [Read more...](#)

The Passing of Bill Tamburro

It is with great sadness that we note the passing of William Tamburro. Bill retired from active service to our chapter about fifteen years ago. He is remembered for his constant attendance at our chapter meetings and his numerous program presentations on foam suppression systems. He was a constant and reliable source of knowledge on that topic and a warm and engaging personality. The vendor service award was named in his honor for these exact reasons. Though these reasons are but a few, his words had the presence like that of a professor.

Services were private.

Written by Frank Spitz

City of Philadelphia- Emergency Responder Radio Coverage Feb 2016 Update

Beginning with the 2010 Philadelphia code cycle, ALL new buildings in the City of Philadelphia are required to have emergency responder radio coverage. The Code also applies to existing buildings where firefighter telephone systems are non-repairable. The Code requires the building owner to provide an evaluation of the public safety radio signal strength into and out of the building as well as audio quality. If the results are below the thresholds set by the Code the owner is required to ensure reliable communications. There are several ways to achieve this, including radio amplification or signal booster augmentation systems. Owners that choose to install augmentation systems are required to seek review and approval by the Philadelphia Fire Department during the design phase of a project. Once installed, these systems are required to be tested at least annually. The Code allows for relief from installing a augmentation system when the owner requests to install a firefighter telephone system in its place and the Fire Department approves the request. At this time the City of Philadelphia has no policy or procedure in place to facilitate the required testing.

Owners should be aware that Federal Communications Commission regulations state that they may not operate a radio amplifier or signal booster using public safety radio frequencies without the permission of the license holder (City of Philadelphia). Additionally, all Part 90 Class B signal boosters are required to be registered with the Federal Communications Commission (See attachment).

Systems that may have been installed in the City of Philadelphia should be reported to the Philadelphia Fire Department.

From the Pennsylvania AFAA website

Slots in Trapeze Hanger Angles

When using angle iron as a trapeze member, slots in the angle would provide some flexibility during installation. The problem was that criteria were provided for holes for bolts, but there were no criteria for slots. Information for slots in angle iron is now provided in the 2016 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*.

Typically, whenever a structural member is modified, this affects the structural integrity where one should obtain approval by an engineer. Since there were no past criteria in NFPA 13, a professional engineer should have approved slots provided in the angle.

For the rest of the article at the AFSA website, [click here](#).

Baseball is back, so what do you know?

Name the only two Phillies pitchers to strike out more than 300 batters in a season.

See page 5 for the answer.



The winner of the SFPE Award for Fire Protection at the Future Cities Competition, is the Grey Nun Academy.



NFPA 25 is now open for re-view. NITNAM closing date is March 18, 2016. To review [click here](#).

"Live in such a way that you would not be ashamed to sell your parrot to the town gossip."

Will Rogers

New Research on Sloped Ceiling in Storage

There is limited prior research related to protection of storage under ceilings with slopes steeper than 2/12. Previous studies exist from FM Global, University of Maryland/Custom Spray Solutions, the [Fire Protection Research Foundation](#), and National Fire Sprinkler Association (NFSA), but there are still many open questions related to the protection criteria for storage under sloped ceilings. The questions include, but are not limited to; sprinkler activation pattern relative to fire source location, and optimal sprinkler installation orientation.

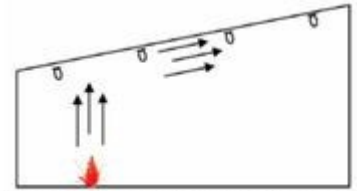


Figure A1: Basic layout of sloped ceiling fire-sprinkler arrangement (half-structure).

There are many different parameters related to this design challenge. Some of the key parameters include the slope of the ceiling, the commodity being stored, types of sprinklers (including ESFRs), sprinkler orientation, and sprinkler spacing. Some possible protection design solutions to sloped ceiling facilities are to use higher densities or larger calculation areas than for storage under flat ceilings.


Further modeling analysis will be beneficial in order to understand the potential protection challenges related to sloped ceilings, and to determine the range of scenarios that should be studied further through testing. The information from this work as well as information gathered from testing could help inform the [NFPA 13](#) requirements.

The Fire Protection Research Foundation initiated this project to ultimately determine the impact of sloped ceilings on protection of storage and develop the technical basis for the NFPA 13 Technical Committees for new requirements and guidance. This report, "[Protection of Storage Under Sloped Ceilings - Phase 1](#)" authored by Kenneth E. Isman, Stephen J. Jordan, Andre W. Marshall and Noah L. Ryder from Custom Spray Solutions, covers the first phase of this project with the objective to develop a test plan based on the review of current range of typical storage configurations and modeling.

A separate FM Global report titled "Numerical Modeling of Sprinkler Activations and Spray Transport Under Sloped Ceilings" contains the results from the modeling effort and [can be downloaded](#).

From the NFPA blog, posted by Lauren Backstrom

March 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 ASCET SJ chapter Mtg	3	4	5
6	7	8 SFPE Mtg 6 PM	9	10	11	12
13	14	15 ASCET Berks chap- ter	16 ASCET Delaware chapter	17	18	19
20	21	22	23	24	25	26
27 	28	29 ASCET Phila chap- ter	30	31		

What's Happening This Month!

- March 2: NJ ASCET Meeting @ the Collins House in Collingswood, NJ
- March 8: SFPE meeting @ Jacobs Engineering 6PM
- March 15: Berks County ASCET Chapter Meeting @ Valentino's in Kutztown 6PM
- March 16: Delaware ASCET Chapter Meeting @ Charcoal Pit on Kirkwood Highway in Wilmington
- March 27: Happy Easter
- March 29: Phila. ASCET Chapter Meeting @ Pub 2900 at 2900 Street Road Bensalem, PA

Baseball trivia:

Steve Carlton,
310 in 1972 and
Curt Schilling,
319 in 1997 &
300 in 1998



Phila-Delaware Valley
SFPE

209 Mechanic St.
Doylestown, PA 18901

Phone: 215-345-8066 X 22
Fax: 215-345-9357
E-mail: jays@tilleyfire.com

Mission Statement

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 losses 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**

Fire History: Fire in High-Rise Kills 3 Firefighters

On Saturday, February 23, 1991, an early evening fire occurred in a 38-story building in downtown Philadelphia, Pennsylvania. The fire extended to 9 floors, killed three firefighters and injured 24 others.

The fire started on the 22nd floor and was caused by spontaneous ignition of linseed-soaked rags used for restoring and cleaning wood paneling. The fire was able to grow significantly before being detected. Vertical spread was ultimately stopped by the automatic sprinklers on the 30th floor that were supplied by fire department pumpers.

Significant factors affecting the outcome of this fire include:

- The lack of automatic fire sprinklers on the floor of origin
- The lack of an automatic early detection system
- Inadequate pressures for fire attack hose lines due to improper settings of the standpipe pressure regulating valves
- The early loss of main electrical service and the emergency power to the building
- The improper storage and handling of linseed soaked rags and other associated combustibles

NFPA members can read the full [investigation](#)

From the NFPA website, <http://nfpatoday.blog.nfpa.org/historic-fires/>.