April 2015



# Flashpoint

Phila-Delaware Valley SFPE

#### Special points of interest:

- SFPE National is looking for an Engineering Manager. If interested, visit www.sfpe.org.
- LaSalle Engineering is looking for an engineer with a B.S. or M.S. in Fire Protection Engineering or an engineering related field. If interested contact Barb Chiessa at bchiesa@LaSalleEng.com
- Mark your calendar for May 27, 2015 for the Annual Fire Museum Golf Outing. Look for more information next month or contact Rick Coppola at rcoppola@OliverFPS.com

# **April Meeting Information**

Date: Tuesday April 14, 2015

Place:Jacobs Engineering GroupThree Tower BridgeSuite3000Conshohocken, PA

5:30 PM: Fellowship Time

#### 6:00 PM: Dinner

#### **Dinner Program:**

We will have three separate CFD, fire modeling case studies that will be critiqued. Kyle Smith will be presenting an interactive case study for a general purpose elevator installed in an electrically classified space. Kyle is a Fire Protection and EHS Engineer who has worked for Jacobs for nearly 4 years and was a University of Maryland Fire Protection Engineering graduate in 2010.

William Flanagan will be presenting a case study on a pharmaceutical facili-

ty that did not meet prescriptive code. William is an EHS and Fire Protection Engineer who has worked for Jacobs for nearly 3 years and was a University of Maryland Fire Protection Engineering graduate in 2011.

Helen Leenhouts will be presenting a case study of a transformer fire and its possible impact on the air intakes of a large building. Helen is an EHS and Fire Protection Engineer who is a graduate of The Pennsylvania State University with a degree in Architectural Engineering with a focus on HVAC.

Cost: \$25.00 for dinner & program

<u>Reservations:</u> By 12 noon, Friday, April 10, 2015

<u>Reserve with:</u> Jeff LaSalle by E-mail: jlasalle@lasalleeng.com

or Fax: (215) 658-1772

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# Nominations for the 2015-2016 Year

The Nominating Committee has put forward he following slate of officers:

President:Robert Moser PEIst Vice President:Jeff LaSalle PE2nd Vice President:Lou AnnasSecretary:Joseph "Jay" Stough CFPSAsst. Secretary:Dave Kriebel, PETreasurer:John SpitzDirectors 2015-2017:Kate LawlerGerry Forstater PEDirectors 2014-2016:Steve Oliver PEBen Young

Elections are held at the annual meeting on May 12, 2015. The chairman of the nominating committee is Phil Scanyo. Additional Nominations can be made in accordance with Article VIII, Section VIII-5 of the Bylaws and must be received by the Secretary by April 14, 2015. 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 jays@tilleyfire.co

VOLUME 20 ISSUE 8

# Flashpoint



#### 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

Newsletter/Publicity Committee:

Chapter visibility."

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: Jeff LaSalle

Email: jlasalle@lasalleeng.com

Visit our web site at: www.sfpephiladelphia.org

#### President's Spark by Mike Venneri PE

Now that we are all better versed in REVIT, we can move on and model away. Thanks to Victaulic for their presentation. I think most of us use or have used REVIT and the mystery and challenge seem to slowly dissipate as we do more and more with it. This month we are changing it up from previous years and doing our meeting as usual as opposed to an "event" of sorts. One of our own, Bob Moser, will bring us up to snuff on CFDs and some applications other than fire. He will have his team with him so it will definitely be an "event" for sure. May meeting will be held at the Pub in Conshohocken. This has been held at other locations in the past for our Business meeting and the Board was looking at change and decided on the Pub in Conshohocken. The information is forthcoming in the May Newsletter so you will be able to navigate your way to the facility. I think most of you already know that location but will give directions for all. Hope to see you for both the April and the May meetings. Thanks,

Mike

### Board of Directors minutes for March 10, 2015

The directors met before the monthly meeting at Jacobs Engineering. They approved the minutes of the December 9, 2014 meeting.

The scholarship committee presented their recommendations for four recipients. After much discussion, the recommendation of the committee was approved.

It was decided that the April meeting would be held at Jacobs as a regular meeting, not a combined meeting.

It was agreed that the May business meeting would be held at the great American Pub in Conshohocken. Look for more details. A request came from Greg Jakubowski to donate \$500 in memory of Dr. Bryan to the University of Maryland Fire Protection Engineering Campaign for a Professor of the Practice. Motion approved.

It was agreed that the chapter should sponsor some type of event for the National SFPE meeting in Philadelphia this fall. Mike Venneri will chair this. Motion approved.

Motion to adjourn at 6 PM. Attendees: Shawn Sullivan, Jeff LaSalle, Lou Annas, Jim Davidson, Steve, Oliver, John Spitz, Dave Kriebel, Ben Young, Phil Sconyo, Jay Stough, Bob Moser .

#### **Member News Update**

Jim Schwander has joined The Solberg Company, a US based company headquartered in Green Bay, WI as the Eastern Region Foam Systems Sales Manager. Solberg is a firefighting foam manufacturing company and a division of Amerex. Jim works with specifying engineers, distributors, end-users and customers to help determine firefighting foam application solutions for protecting flammable liquid hazards.

They have developed an environmentally sustainable fluorine-free foam for Class B flammable liquid hazard fires. Their RE-HEALING foam concentrate is fluorosurfactant and fluoropolymer-free products. RE-HEALING foam and systems hardware are both UL Listed and FM Approved. They also have a full line of foam system hardware and foam concentrates.

You can reach Jim at 267-293-0342 or jim.schwander@solbergfoam.com

If you have any news on our members, contact Jeff LaSalle at jlasalle@lasalleeng.com

#### 4 Scholarships Awarded in 2015!

The Scholarship Committee reviewed the applications received this year and recommended that four scholarships be awarded. This was approved by the Board of Directors at their March meeting. The recipients are as follows:

Conor McCoy, from Claymont DE., is a Fire Protection Engineering student at the University of Maryland. He is a senior and an active student member of SFPE.

Rachel Lilenfield, from Margate City, NJ., is a junior Fire Protection engineering student at the University of Maryland. She is a member of SFPE

Allison Calder, of Newark, DE., is completing her second year of Fire Protection Engineering & Technology at Delaware Technical Community College. She also received a scholarship last year.

Kevin Murphy , of Jamison, PA., is a junior in the Fire Science-Fire Investigation program at University of New Haven in Connecticut.

#### **Certified Fire Protection Specialist Course Begins May 2015**

Register now for SFPE's Certified Fire Protection Specialist (CFPS) online prep course.

Course participants will be able to access three, live two-hour sessions from the Internet. The course is taught by a subject matter expert, using web conferencing technology, which allows participants the opportunity to ask questions as they arise throughout each session. The course will cover topics from the NFPA Fire Protection Handbook, which is the basis for the CFPS exam.

Please note that the CFPS does not fulfill any part of the requirements for Professional Engineering (PE) licensure.

#### **REGISTER HERE**

#### Course Schedule:

Three live, two-hour online sessions are required:

May 12, 19 and 26 (Every Tuesday) from 2:00 - 4:00 PM EDT

May 14, 21 and 28 (Every Thursday) from 6:30 - 8:30 PM EDT

You have the flexibility to attend either the Tuesday or Thursday session each week

#### Fire Hazards of Exterior Wall Assemblies Containing Combustible Components

Many combustible materials are used today in commercial exterior wall assemblies to improve energy performance, reduce water and air infiltration, and allow for aesthetic design flexibility. These assemblies include Exterior Insulation Finish Systems (EIFS or ETICS), Metal Composite Material (MCM) claddings, high-pressure laminates, foam plastic in cavity walls, and water-resistive barriers (WRB). The combustibility of the assembly components directly impacts the fire hazard. For example, the insulation component of EIFS and MCM claddings is combustible foam which exhibits rapid flame spread upon fire exposure.There have been a number of documented fire incidents involving combustible exterior walls, but a better understanding is needed for the specific scenarios leading to these incidents to inform current test methods and potential mitigating strategies.

To read more , click here. Article by Amanda Kimball, P.E. Fire Protection Research Foundation

"The first day of spring is one thing, and the first spring day is another. The difference between them is sometimes as great as a month." Henry Van Dyke

"Baseball is ninety percent mental and the other half is physical." Yogi Berra Flashpoint

#### High Rise Sustainability and Integrity; The NFPA 72-2010 Code and Retrofits

With New York City building owners and managers being the most affected adoptee of NFPA 72 – 2010, its impact on existing infrastructure and fire alarm systems functionality, compared to codes even one decade old, is substantial and fully encompassing. The loss of multiple high-rise structures at the World Trade Center in 2001 demonstrated the potential lack of survivability of systems in event of catastrophic fire. The impact of this new code on retrofitting older buildings, in comparison to former codes, will mean better protection but also a wide array of needed infrastructure enhancements.

New overarching enhancements are necessary for power supplies, cabling and infrastructure, system monitoring and survivability, emergency communications, evacuation signaling, and human interaction with demonstrated operational continuity.

Upon a building manager's decision for modification and redesign to comply with the most appropriate code, many jurisdictions will require compliance with NFPA 72 dated 2010. There are some serious modifications to fire command; its applicability of these requirements for adoption in most buildings is substantial and concrete – providing both sustainability and integrity in event of fire – saving lives.

Some of the changes that have been made which will require modifications, enhancements, and in some situations, wholly new requirements are:

- Annunciation zoning has been clarified and for the purpose of alarm annunciation, each floor must be recognized as a separate zone. This also applies to monitoring integrity that each zone in itself must be supervised, have complete integrity to withstand fire or other situations, all while not interfering with the activation of adjacent floor controls or signaling.
- Circuits have been redeveloped to identify clearly Class A, Class B, Class C, Class D, Class E, and Class X pathways.
- The path survivability is defined to comply with survivability from 0 being no provisions for pathways survivability to the maximum Level 3 pathway survivability with Level 1 and 2 being partially survivable.

Most modern high rise buildings may require a pathway survivability of Level 2 which will consist of pathways and buildings that are fully protected by an automatic sprinkler system in accordance with NFPA 13 with interconnecting conductors, cables, and physical pathways installed in metal raceways.

Pathway survivability is required and is identified in 24.3.5.4.1 requiring that systems employing relocation of occupants or a partial evacuation, a Level 2 or Level 3 pathway survivability is required. The following are some of the nuances of this section:

- For non-sprinklered building, Level 3 may not be obtained without architectural modifications within the structure of the building to some extent. However, a Level 3 pathway survivability plan may be implemented at least partially within most buildings without major reconstruction.
- 2-way in-building wired emergency communication systems must also have a pathway survivability of Level 2 or Level 3.
- The Central Command Station emergency communication systems shall have a pathway survivability as determined by Risk Analysis.

A Risk Analysis, preferably by a trained, licensed fire protection engineer for the ECS, must be applied to address specifically the nature and anticipated risks of each facility for which the fire systems are designed.

Inspection testing and maintenance requirements are newly expanded and cover a wide variety of services that will be required when systems are modified and upgraded. The new inspection testing and maintenance sign-off is extensive at 11 pages.

This systemized melding of sustainability of independent operational capability with central automated control with integrity of communications circuitry reliability and intelligibility provides the highest level of protection reflective of 21<sup>st</sup> century risk management. Many other technical infrastructure, operational and reliability requirements have been modified, enhanced, or are wholly new—with this summary being highlights of life safety improvements.

The cost of retrofit for many owners, managers, and REITs will be substantial, mandating the careful, coordinated, and code-justified solutions by fire protection engineers prompting required building changes.

Gerald 'Dutch' Forstater, PE, graduated from Worcester Polytechnic Institute, Massachusetts. He also earned certification from University of Pennsylvania, Wharton Executive Management Program and holds NICET Fire Alarm and Fire Protection Certification.

# April 2015

| SUN       | MON     | TUE             | WED           | THU | FRI        | SAT |
|-----------|---------|-----------------|---------------|-----|------------|-----|
|           |         |                 | 1 ASCET SJ    | 2   | 3 Passover | 4   |
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| 12        | 13      | 14 SFPE         | 15 ASCET De1- | 16  | 17         | 18  |
|           |         | Meeting         | aware chapter |     |            |     |
| 19        | 20      | 21 <b>ASCET</b> | 22            | 23  | 24         | 25  |
|           |         | Berks chapter   |               |     |            |     |
| 26        | 27      | 28 ASCET Phi-   | 29            | 30  |            |     |
|           |         | la chapter      |               |     |            |     |

## Monthly Events

- April I: NJ ASCET Meeting @ the Collins House in Collingswood, NJ
- April 14: SFPE meeting @ Jacobs Engineering. Don't forget to make your reservation by Friday April 6th
- April 15: Delaware ASCET Chapter Meeting @ Charcoal Pit on Kirkwood Highway in Wilmington
- April 21: Berks County ASCET Chapter Meeting @ Valentino's in Kutztown 6PM
- April 28: Phila. ASCET Chapter Meeting @ Michael's Dinner in Bensalem



**Overworked**?

Understaffeo



Phila-Delaware Valley SFPE

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

# **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.

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