

# Flashpoint newsletter

JANUARY

## PHILADELPHIA-DELAWARE VALLEY SFPE CHAPTER

### JANUARY MEETING

DATE: TUESDAY, JANUARY 9, 2018

LOCATION:

NEW MEETING LOCATION

OLIVER FIRE PROTECTION AND SECURITY

501 FEHELEY DRIVE

KING OF PRUSSIA, PA 19406

TIME:

5:30 FELLOWSHIP

6:00 DINNER

DINNER PROGRAM:

This month's meeting will be presented by Derrick J.V. Sawyer. He will be speaking on speaking on NFSA's initiative to support state/local adaption of high-rise retrofit requirements as well as the new retrofit in the 2018 addition of the International Fire Code (IFC) for A-2 occupancies.

COST: \$25.00 FOR DINNER AND PROGRAM

RESERVATIONS BY: 12:00 NOON FRIDAY, JANUARY 5, 2018

WE ARE STARTING A NEW FORM OF MEETING RESERVATION. TO REGISTER FOR THE MEETINGS PLEASE SEE THE LINK BELOW AND FOLLOW THE REQUIRED STEPS.

<https://goo.gl/forms/xch6qNPBK AukUIC33>

If you have any questions or concerns regarding the new form of registration, please don't hesitate to email:

dslatcher@OliverFPS.com

#### Special points of interest:

- 2018 TRADE SHOW IS FAST APPROACHING!
- MEETING LOCATION CHANGE FOR FEBRUARY AND MARCH MEETINGS

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### 2018 SFPE DELAWARE VALLEY SEMINAR AND TRADE SHOW

This year's event is scheduled to take place at the King of Prussia Double Tree by Hilton conference center on Thursday April 12<sup>th</sup>, starting with a continental breakfast at 7:30am. The format of the event will allow participants to mingle with vendors before and in between presentations in a Trade Show setting where vendors will showcase their products and have representatives to field any questions you may have. There will be a total of 12 presentations provided throughout the day, of which attendees have the opportunity to choose which topics they are interested and which presentations to attend during a total of 6 total sessions. CEU credits will be offered. Reserve your spot online today, space is limited! Please see below for the link to sign up!

<https://2018-sfpe-pdv.eventbrite.com>

## PRESIDENT'S SPARK

As I write this a news report is quoting the New York City Fire Commissioner as blaming the recent Bronx, NY apartment fire deaths on vertical smoke spread in a stairtower caused by the door to the unit of fire origin being left open. There is no indication that this apartment building was sprinklered. If not, passive protection systems would have been essential to confining the fire and smoke.

Locally, questions have been raised about the adequacy of the water supply and the status of the sprinkler system at the Barclay Friends Nursing Home, which was partially destroyed by an accidental fire in November. Apparently, the building was sprinklered, but reports from fireground radio traffic indicate that the firefighting efforts were hampered by low water pressure. Sprinkler system activation is still a question.

What do these two events have in common? They both point to the impacts of human behavior on building fire safety, both in terms of fire prevention and in terms of building fire safety system reliability. In the Bronx, an unattended three-year old playing with a stove was to blame for starting the fire. At Barclay, one of the possible causes was a smoker improperly discarding a cigarette. (The typical culprit – electrical fault – is the other possible cause, but my money is on the smoker, although we may never know).

At Barclay, it's clear that there were system reliability issues affecting the availability of water for both the sprinkler system and for manual firefighting. The existing mains in the area are scheduled to be replaced within a year. How did this condition affect sprinkler system operation? Would it have mattered if the attic was not sprinklered? What about firestopping and draftstopping in the attic and other concealed spaces? Were these installed and maintained? Was there any pre-fire planning to address the potential need for relaying water from a "better" part of the water distribution system?

In the Bronx apartment fire, the fleeing residents apparently left doors open allowing smoke to spread into a stairtower. But should they have been required to close a door manually? In all buildings, doors to exit access corridors and stairs are generally required to be self-closing and positive-latching. Were these not operational? Or were doors blocked open? Were residents to blame?

In both cases these questions remain unanswered, but point to the need for education, ongoing systems maintenance, and pre-incident planning. As fire protection professionals, our obligations often end when the certificate of occupancy is obtained and the building is occupied. Then the owner is responsible for maintaining the fire and life safety systems. But should we abdicate this responsibility in all cases?

Highly regulated occupancies, such as hospitals, have significant oversight with respect to life and fire safety issues. Personal Care facilities, like Barclay Friends, have some oversight; apartment buildings like the one in the Bronx, have very little. What correlation does the level of third party oversight have with system reliability and level of safety, in general? How should this information guide us as we design solutions for the fire safety problems we are paid to solve every day? Do we have a responsibility as professionals to raise awareness in other ways?

I have many questions today, but few answers. Just a desire to encourage each one of us to think about issues of appropriate technology, system maintainability, reliability, and human behavior as we go about our daily activities. How we answer these and other questions could help save a life someday.

Wishing you a healthy, prosperous, and fire safe 2018,

Jeff LaSalle

## LA's Wildfires; When Purple Leads to Red

Upon landing in LA I was caught by the rental car offices TV, an LED display proudly showing its vivid red capabilities. Only this red was 'red flag' warnings. Okay I thought, I have to go directly north from the airport, into Beverly Hills and Hollywood, and I noticed that the fire was just north and east. I didn't think too much about it and got in my car and headed out into the beautiful sunny 70 degree day. Listening to the news I had my first introduction to the impact the fires had with the Ventura county mayor just beginning his very first day in office. His first day included 1000 firefighters in his county, over 3000 people in shelters, and an impending disaster that he could never have predicted nor assumed taking responsibilities for in his wildest dreams. That was an interesting interview, but there was much more to come.



Traveling through the heart of Los Angeles and finishing lunch I still had no clue. Passing by ABC's Animation Studios, Warner Bros., and the Record Plant - where so many famous vinyl records were produced in the 1970s - and impeccable cemeteries where the luminaries of Hollywood are buried, gave me no indication of what I was directly in the middle of as well as a half million others in the vicinity. Only 7 miles away.

Here I was as an expert witness for a fire alarm installation gone wild with one of the largest authorities in California, getting a wood fired Pizza for lunch, and in the midst of one of the biggest fires California had ever seen. I still didn't see the intersection of events.

I realized it only when getting to the hotel, with a 52" television brightly lit with the same red flag warnings - only transversing three counties at this point. The fire news was 24/7 nonstop. That night they explained how they pinpoint fire predictions to the kilometer, in a new prediction system inaugurated only two years ago. It has levels of danger which anticipate the incendiary nature of ground-cover and trees, and compounds the humidity, or lack thereof, and wind, to accurately assess a metric of real time hazardous environmental fire conditions.

## LA's Wildfires; When Purple Leads to Red (cont.)

It was truly startling. The inventor of the system was from one of the prediction laboratories in the area instituting the metric as a prism of colors from yellow through orange to red and finally purple, with purple being the highest level and the highest potential for catastrophe. In his live interview that night he stated that since launch they had never had even one area in purple, but now purple stretched across counties in the northern Los Angeles region.

This was absolutely shocking. This was not like snow, and you're being buried in 3 feet, and perhaps you can't get your fresh milk, and you might have to have canned soup a couple days, Or maybe losing power and having to deal with perishables and their replacements. No this was getting out of your home immediately, going to a shelter and praying that you would have a bed to go back to.

The predictions were dire, anticipating up to 70 mph Santa Anna winds and a breach of fire across a major artery that spans west to east, the firefighters plan was to prevent the fire from jumping the highway. Their success wasn't man-made - it was luck. Only because the winds capacity that night was a relatively low 35 mph, embers did jump but they were contained quickly.

Turning on my television the next morning at 5 AM, gave a startling resonance to the might of fire and how quickly it consumes with the high winds. The one story that seemed to strike everyone is of horses in a barn. Laborers could not save the structure from being consumed within minutes, the catastrophic envelope killing approximately 40 horses in less than ten minutes. But three were spared.

The pictures of these poor animals were horrendous. I never realized how sensitive mucous membranes are to heat. All the horses lips and eyes were burnt since these have no protection. Both hair and skin provide an element of protection where mucous membranes are exposed much more quickly. It is hard to describe to you graphically what they showed visually on television, but it was certainly one the worst cases of physical harm and especially emotional trauma a horse could go through.

But there was more. The news was all about the fires, with residents having to be ready at a moments notice to leave, having no more than two minutes to go. And while many homes were spared, there were thousands in shelters as well as over one hundred schools closed. The transcriber in our deposition told us how it took her an hour extra driving just to get her children because of the blocked roads - the smokes intensity necessitating the closures.

If you think it's difficult explaining snow to those in equatorial places, with their first thought how beautiful, consider the opposite; explaining the nightmarish consequences of embers traveling up to 2 miles in the Santa Anna winds. These winds blow north-easterly at nite after sunset at rates of up to 70 mph. And the embers may engulf your home, but not your neighbors across the street in as little as five minutes.

Or entire neighborhoods, at the whim of heat, wind, and the dryness of the environment - not having had rain since March of 2017 of any measurable amount. And that's with the drought officially over. But it's the remnants of the years of drought that create this environmental calamity.

So think of how your heart would feel at the loss of your home and every possession which would be consumed like a smiths casting fire, with everything incinerated by the winds forces increasing consumption temperatures above 900°F.

And when it catches, there's no intumescent roof coating, asbestos-like protection, time to get the fire department or in most cases enough water pressure to be used by the homeowner. The embers blow under your car, into your shrubs, up under eaves and onto your porch, leaving no quarter untouched by the fast spreading wind blown heat.

## LA's Wildfires; When Purple Leads to Red (cont.)

The photo is of my trip back to Philadelphia out the planes window, and as it turns out two areas of burning can be seen. Air traffic required the plane to go out to sea, directly out into the Pacific for what seemed like a trip to Hawaii. Upon returning to land I was offered a birds-eye seat, the one I paid for. The farthest fire, the one with the chimney like effluence, is the Ventura County fire, while the lower one is the Simpson fire. You can see how the winds are blowing to the west which is what is desirable. If they blew to the east or northeast this would be the Santa Anna winds and be stronger and cause more damage.

It is hard to put yourself in this position. It was a remarkable being in this area at that time, forever having compassion and outreach for those having been affected. The response by locals was overwhelming with people driving everything from water to food to diapers to the centers helping those in need.

Flying back and seeing only thirty second sound bites, I knew it was important to drive this information home so that we can all understand the severity of these situations. With only one firefighter loss out of thousands rotating in and out, this is a massive command effort with verifiable acknowledgment of the safety of those who battle by hand fires danger, under the supervision of skilled chiefs and managers.

My prayers are with all affected, especially those providing almost super human energy in order to protect life and others properties under the most difficult, mountain steep, ground access conditions.

Jerry 'Dutch' Forstater

## Engineers Week

Engineers Week in the Delaware Valley will be celebrated from February 16-24, 2018. This will be our 66th year (!) of celebration of Engineers Week locally.

Delaware Valley Engineers Week will conduct three events, as follows:

**Kickoff Luncheon** - Friday, February 16, 12:00 Noon, Sofitel, 120 S. 17th Street, Center City

**Young Engineers Social** - Tuesday, February 20, 6:00 PM, U-Bahn, 1320 Chestnut Street, Center City

**Awards Reception/Student Showcase** - Thursday, February 22, 5:00 PM, IATSE Ballroom, 2401 S. Swanson Street, Philadelphia

More information on costs, meal choices, and reservations will be available on our website shortly.

Our 2018 Sponsorship Brochure is available on our website ([www.dvewc.org](http://www.dvewc.org)). We are hopeful that you can consider a donation to E Week. Our efforts are supported by volunteers and donations go towards our awards, prizes, and scholarships.

Congratulations to **Alexa Egan Harper, PE**, our **2018 Delaware Valley Young Engineer of the Year!** We will formally welcome Alexa, as well as incoming Delaware Valley Engineer of the Year **Deborah Grubbe, PE** at our Kickoff Luncheon.

Once again, the [Philadelphia Business Journal](#) and Delaware Valley Engineers Week will be teaming up to produce the **Engineers Week Supplement**. The Supplement will be published February 16 in conjunction with the DVEW Kickoff Luncheon. The PBJ is offering discounted rates for Supplement advertisers, a cost-effective opportunity for organizations to maximize the impact of their essential marketing message.

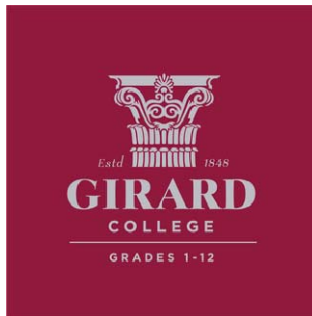
To help us celebrate engineering in the Delaware Valley, the Engineers' Club has established an effort to recognize the many and various projects and individuals cited by the engineering and technical societies in our region. This illustrates the varied fields and specialties covered by these groups and the notable contributions made in these specialty areas by engineers. Please send us information on your groups' awards at [contact@engrclub.org](mailto:contact@engrclub.org) by January 19 for inclusion in our outreach materials.

# Student Outreach Opportunity at Girard College

ECP is looking for volunteers to assist with a potentially fun and exciting opportunity at Girard College in Philadelphia! The school is looking for professionals with engineering backgrounds to assist with students aged 13 through 18 working in their new Maker Space room. The new space includes gadgets such as 3D printers, sewing machines, coding software, circuit boards, and other items. Volunteers would work with students on projects that they independently selected or projects that were assigned by teachers. A few more details:

- Volunteers could commit to 1-2 days a week from Tuesday through Friday, each day being a one hour long time slot (10:30 to 11:30 or 3:30 to 4:30).
- Clearances are required (including fingerprinting and drug screening), the cost of which will be covered by Girard College.

If you are interested in volunteering, please contact Chris Micale at [cmicale03@gmail.com](mailto:cmicale03@gmail.com).



## Philadelphia Future City Competition

The mission of the [DiscoverE Future City Competition](#) is to provide a fun and exciting educational engineering program for middle school students that combines a stimulating engineering challenge with a "hands-on" application to present their vision of a city of the future.

The Philadelphia Regional Future City Competition is a 501.c.3 educational outreach program of [DiscoverE](#). We are one of 39 regional programs conducted throughout the country with the goal to introduce middle school students to the engineering profession. The Future City Program continues to be on the National Association of Secondary School Principals' National Advisory List of Student Contests and Activities.

The Philadelphia Regional Competition draws schools from Philadelphia and surrounding counties including the Lehigh Valley, Southern New Jersey and Delaware. Students from middle schools and after school programs in the region form teams consisting of 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students who work with a teacher and an engineer mentor from September to January.

# January 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 NEW YEARS DAY	2	3 NEW JERSEY ASCET MEETING	4	5	6
7	8	9 PHILADELPHIA DELAWARE VALLEY SFPE MEETING	10	11	12	13
14	15	16 BERKS COUNTY ASCET MEETING	17 DELAWARE ASCET MEETING	18	19	20
21	22	23	24	25	26	27
28	29	30 PHILADELPHIA ASCET MEETING	31			

JANUARY 1: NEW YEARS DAY

JANUARY 3: NEW JERSEY ASCET MEETING

JANUARY 9: PHILADELPHIA DELAWARE-VALLEY SFPE MEETING

JANUARY 16: BERKS COUNTY ASCET MEETING

JANUARY 17: DELAWARE ASCET MEETING

JANUARY 30: PHILADELPHIA ASCET MEETING

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### **Society of Fire Protection Engineers**

We're on the web at  
[Www.sfpephiladelphia.org](http://www.sfpephiladelphia.org)

#### **MISSION STATEMENT**

The Philadelphia/Delaware Valley Chapter purpose is to advance the science and practice of fire protection engineering and its allied fields, to maintain a high ethical standard among its members and to foster fire protection engineering 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.