



September 2022



A publication of the Central Ohio Chapter of the Society of Fire Protection Engineers

SFPECOC Web Site

Next Meeting

Date: September 14, 2022

Location: TAT Ristorante Di Famiglia 1210 S James Rd, Columbus, OH 43227



Speaker: Lainey Liotta – Sr. Fire Protection Market Manager - Lubrizol – A Berkshire Hathaway Company

Lainey will be discussing UL Listed Antifreeze for Fire Protection Systems and the importance of the Sept 30, 2022, NFPA compliance deadline for all existing and newly constructed antifreeze sprinkler systems.

Cost: \$22.00 (Members) \$25.00 (Non-members)

Make Reservations with: Bob Fischer bfischer@supplynet.com 440-463-0720

Reservations Deadline: Friday September 9, 2022, 10:00 am.

Everyone who plans to attend, including pre-paid members, must make a reservation and check-in with John Falk at the meeting. Ordering items not on our set menu options will require additional payment.

This meeting is covered by those who have paid the One-Pay option.

Meeting fees can be paid online at <u>https://sfpe-centralohio.square.site/</u>

Annual Chapter Dues

The annual chapter dues are \$20. The dues are used to support the chapter operations and promote our chapter.

The One-Pay option is back for this year. For \$108, you get you annual dues and 5 chapter meetings. The MCACO meeting is not included.

You can pay your annual dues on our Chapter On-Line Payment Center. This secure site is operated by Square. Click here to go to the site.

https://sfpe-centralohio.square.site/

The site works in Chrome, Edge and on iPhone. It does not work on Internet Explorer.

SFPE - Central Ohio Chapter On-Line Payment Center



Future Meetings

September 26, 2022 - Burn Center Golf Outing

Chapter Meetings November 9, 2022 January 11, 2023 March 8, 2023 May 10, 2023

New Board Members

In May, 2022, we elected a new slate of Board members for the Chapter. The new board is as follows: President – Phil Sisia Vice President – Bob Fischer Treasurer – John Falk Secretary – Jenifer Haugh Past President – Mike Lyons

Board of Directors:

- Chad Miller
- Ryan Oyster
- Carl Sellke
- Cory Blair

If you are interested in being part of the Board in the future, or volunteering for other duties, please contact any of the current members.

New Chapter Web Site

<u>Click Here</u> to check out our new chapter web site. Our old host has been sold and is no longer available for us to update. We have been working on a new site. If you have any comments, please let us know.



Ohio Fire Marshal Festival Ohio Fire Marshal Web Site

The Ohio State Fire Marshal will host its Ohio Fire Marshal Festival this year in Reynoldsburg (Licking County). This event will be from 10 a.m. to 3 p.m. on Saturday, Sept. 10th at 8895 E. Main St, Reynoldsburg, OH, 43068, and it will contain a variety of activities catering to all ages.



"We are so excited for this year's festival," said State Fire Marshal Kevin Reardon, "Our grounds are secure the other days of the year so it's a great opportunity for families to come out and see all the important things we do here and have a good time."

The festival is a celebration of the courageous work of Ohio's firefighters and the important work the Ohio Department of Commerce's Division State Fire Marshal does to 'Protect What Matters Most' to Ohioans. In addition to the educational programming, activities will include a full program of demonstrations, training, and experiences all scheduled throughout the day.

A few exciting elements of the festival will include helicopter landings, K-9 fire dog training exercises, food trucks, fire apparatuses, fire safety demonstrations, and entertainment with a focus on education, safety and fun, interactive experiences. Children will be able to participate in an assortment of activities including a magic show, face painting, bounce houses, balloon twisting, and a kiddie combat challenge with water hoses.

State Fire Marshal Fire Prevention Bureau Chief and event organizer Ken Klouda said, "This is the right event to finish off the summer season and send us into fall. It's family-friendly,



entertaining, and informative; a perfect combination. Come out and spend the day with us."

The festival also serves as a thank-you to all Ohio Fire Academy alumni, and they are invited back to campus to explore the growth of the Academy and to see the exciting plans for future improvement. Join the Ohio State Fire Marshal and the Ohio Department of Commerce for an exciting and enjoyable day that will entertain the whole family.

Antique Fire Apparatus & Vehicles are invited to set up at the Ohio Fire Marshal Festival. For details, contact Ken Klouda, Fire Prevention Bureau Chief at <u>ken.klouda@com.ohio.gov</u>.

Electric Vehicle Fires: What's Really Going On? Source: Fire Engineering

Electric vehicle (EV) fires are definitely a hotbutton topic in today's fire service. But why? EVs have been around for 15 years now, and hybrids for 25 years. The technology changes weekly, if not daily. However, rescuers, as end users, are rarely considered. EVs are a different spin on response considerations, especially with fires.

Reimagining Vehicle Rescue and Extrication Methods

Fires involving hybrid vehicles really are not much different than today's normal internal combustion engine (ICE) vehicles other than having a potentially greater fuel load in the high-voltage (HV) battery pack. Pack sizes are all across the board; some are much less than others on the kilowatt/hour rating of the pack. The state of charge (SOC) will also determine the fuel load. A low SOC means a low fuel load from the pack; a high SOC means a high fuel load from the pack.

That same HV battery pack in an electric vehicle (EV) is the substantial difference between hybrids, EVs, and standard ICE vehicles. What is powering the HV battery pack is key here. Almost all hybrid vehicles use nicad or nickel metal hydride power cells in the HV battery pack. These power cells are very stable thermally during use but, in a fire situation, they will add a significant hazard to the overall fire load of the vehicle. However, because of increased power demand and storage requirements, EVs need a better performance power cell in their HV battery pack.



BMW hybrid vehicle. (Photo courtesy of BMW.)

For the complete article, Click Here

Warehouse Fire Safety Source: NFPA



WAREHOUSE FIRE SAFETY

Warehouse fire safety has always been an important topic. Recently, multiple large warehouse fires have brought this topic to the forefront of people's minds. Large-loss fires in warehouses can risk the lives of occupants and first responders, cost millions of dollars, and negatively impact the environment. More widespread understanding of how fire protection is provided for these buildings can help decrease the likelihood of major warehouse fires; this includes identifying responsibilities of the involved parties, commodity classification, understanding sprinkler design and limitations, management of change, and appropriate inspection, testing, and maintenance (ITM)



Warehouse Fire Data Warehouse fires are not uncommon. From 2014 to 2018, an estimated 1,410 warehouse structure fires per year were reported to US fire departments. These fires caused an annual average of two civilian deaths, 20 civilian injuries, and \$159 million in direct property damage. See nfpa.org/warehousefires for more details.



Responsibility for Safety

The initial design of a fire protection system for a warehouse is the responsibility of the engineer of record and the sprinkler designer. The design is based on information about the intended use of the space, including the contents that will be stored in the space, the packaging of the contents and the storage arrangements of the warehouse. It is essential that they have accurate information from the building owner provided up front in the form of an Owner's Information Certificate, such as is found in Annex A of NFPA® 13, Standard for the Installation of Sprinkler Systems.

It is the responsibility of the authority having jurisdiction to review the plans based on the initial assumptions for compliance based on the edition of NFPA 13 that is used by the jurisdiction.

Once the building becomes operational, it is the responsibility of the building owner—or their designated representative—to maintain compliance with codes and standards. This compliance includes ITM, management of change, and upholding fire prevention measures.

<u>Can We Improve Sprinkler</u> <u>Protection for Warehouses?</u> <u>Source: Fire Engineering</u>

Fully-sprinklered warehouse or big-box-store buildings should be safe from fire. We generally believe that this is true, provided there is no major external disaster (the city loses its water supply, an airplane crashes into the building, etc.). Yet recent events have proven otherwise. In December 2021, a QVC warehouse in North Carolina was destroyed. In March 2022, a Walmart big-box store in Indiana was destroyed, while in April 2022, a Home Depot center in San Jose became a pile of rubble. These were all fully-sprinklered facilities, with sprinkler systems presumably designed by competent engineers. Yet they burned down into huge, flaming messes.



As with any major loss, it will likely take a year or two before various involved parties finish figuring what went wrong and who might be the responsible party. The details will likely prove different for each case. But while the memories are still fresh, we should start trying to figure out how the fire safety profession could do better. Three very similar major incidents in the space of five months are not something we can be proud of.

For the rest of the story, click here

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The New Foam Source: NFPA Journal

For decades, aqueous film forming foam, or AFFF, has been the gold standard for extinguishing dangerous liquid fuel fires. Now, with AFFF being rapidly phased out and new firefighting foams being developed, the fire protection world braces for what's next.

On the mantle in his home office, beside antique fire alarm boxes, model fire trucks, and old fire helmets, Jeremy Souza once kept a collection of slightly stranger mementos: about a dozen jars filled with various amber liquids.



For years, as a firefighter and later deputy fire chief at T.F. Green Airport in Providence, Rhode Island, Souza would lug the jars to trainings for new firefighters. He'd pass the jars around and explain how the liquid inside, a chemical substance called aqueous film forming foam, or AFFF, worked to extinguish liquid fuel fires and even perform other feats of magic around the fire house.

"Back in the day at the airport, we used this stuff for just about everything short of brushing our teeth," said Souza, who is now an engineer specializing in foam suppression systems at Code Red Consultants, a Massachusetts-based fire safety company. "AFFF is a wonderful degreaser. Take a half gallon of AFFF concentrate, throw it on a garage floor and hose it down, and the stain is gone. I would say that is more of an airport thing—municipal fire departments would never have dealt with quantities of foam like that. But we had loads of it." For a certain generation of specialized firefighters tasked with protecting airfields, oil and gas facilities, and military installations, Souza's experience is probably relatable. For nearly six decades, AFFF has been as indispensable to their jobs as water is for structural firefighters, owing to its unique ability to quickly snuff out even the nastiest liquid fuel fire under a blanket of chemical bubbles. In the dangerous scenarios that can play out when large stores of fuel are threatened by fire, AFFF's qualities as a fast and reliable suppression agent have literally been a lifesaver.

And yet, there is now near-universal agreement among health officials, environmental scientists, governments, and even firefighters that AFFF must go, preferably as soon as possible.



Citing mounting evidence that the chemicals present in AFFF-known as per- and polvfluoroalkvl substances, or PFAS-are potentially damaging to the planet and to human health (see "The PFAS Problem"), there has been rapid movement around the world to limit or ban their use. In 2021 alone, the number of US states that banned or severely limited AFFF went from just a handful to at least 15, and legislation is pending in at least five other states to do the same. The US military, which helped develop AFFF in the 1960s, has announced plans to stop using it by October 2024, and the Federal Aviation Administration intends to follow suit at thousands of airports across the country. Several European countries have already stopped using AFFF, and in February the European Chemicals Agency proposed an outright ban on the manufacture,



use, and export of AFFF for the entirety of the European Union.

"We can all allude to how good AFFF has been for us, but AFFF is going away. If you are still dwelling on that point, then you are behind," Casey Grant, executive director of the research and engineering firm DSRAE LLC, told a room full of fire protection professionals during a presentation in June at the NFPA Conference & Expo in Boston. "There is no doubt that this issue is full of questions and complications for all of us, but we have to face the fact that this transition is happening."

For the rest of the story, click here

Hollywood Magic with Fire Protection Source: University of Maryland

A Sprinkling of Truth - First Episode of New 'Ask an Engineer' Video Series Separates Fire Sprinkler System Fact From Fiction

Kenneth Isman points out how "Mean Girls," "Stranger Things," "The Incredibles" use Hollywood magic to transmogrify the systems into handy—but not exactly accurate—plot devices.



"They give the public a real incorrect image about the way fire protection systems, and mostly fire sprinkler systems, work," he said.

But one film got it right, he said. In the 1996 action flick "Eraser," Arnold Schwarzenegger's character uses a gun to shoot out a fire sprinkler in order to get water to flow. This sets off a water flow alarm that prompts people to evacuate a building. The alarm also triggers a locked door to open, so he can escape. "That is very realistic," Isman said.

<u>Click here</u> on the picture to see the video: (4 minutes)



SimpliSafe Fireworks Video Source: Youtube

Click on picture for interesting video.



FDNY Demonstrates How to Hook Up to a Hydrant When a Vehicle Is Blocking the Way Source: FireFighter Nation

Click on picture for interesting video





Web Links

SFPE Central Ohio Chapter <u>www.sfpecoc.webs.com</u>

Society of Fire Protection Engineers (National) <u>www.sfpe.org</u>

American Fire Sprinkler Association www.firesprinkler.org

ICC Website www.iccsafe.org

National Fire Sprinkler Association www.nfsa.org

Ohio State Fire Marshal www.com.state.oh.us/sfm

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Society of Fire Protection Engineers Central Ohio Chapter

APPLICATION FOR MEMBERSHIP IN THE CENTRAL OHIO CHAPTER OF SFPE

NAME	
COMPANY	
ADDRESS	
PHONE NUMBER	
E-MAIL ADDRESS	
ARE YOU A NATIONAL MEMBER IN SEPE?	

The annual are \$20. The One-Pay option is back for this year. For \$108, you get you annual dues and 5 chapter meetings. The MCACO meeting is not included. You must pay the full \$108.00 with this membership application or renewal to take advantage of this new program. Membership in the Chapter includes the member fee for meetings, and a subscription to *The Fire Bucket*, our Chapter's Newsletter

You can pay your annual dues on our Chapter On-Line Payment Center. This secure site is operated by Square. Click here to go to the site.

https://sfpe-centralohio.square.site/

The site works in Chrome, Edge and on Iphones. It does not work on Internet Explorer

PLEASE MAIL APPLICATION TO:	John C. Falk, Sr.
	Central Ohio Chapter SFPE
	5700 Cali Glen
	Westerville, OHIO 43082
	Jcf_sr@yahoo.com

Please make check payable to Central Ohio Chapter, SFPE.

Applications can be submitted at the next meeting. Please complete a new application every year, so we can keep our database current. Dues run from September 1st to August 31st of each calendar year.

September 2022 - August 2023