



FIRE BUCKET



September 2016

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

SFPECOC.Webs.com

Next Meeting

Date: September 14, 2016

Location: **The Spaghetti Warehouse**
397 West Broad St, Columbus, Ohio 43215

Speaker: JR Fowler, SA Comunale Company

Topic: Residential Sprinklers

The presentation is an overview of the different types of residential sprinklers, and design approaches within NFPA-13, NFPA-13R and NFPA-13D. Also included will be the major differences between NFPA-13R and NFPA-13D.

Time: Registration 11:15 – 11:30 am
Lunch at 11:30 am
Program 12:15 pm

Cost: \$20.00 (Members)
\$25.00 (Non-members)

Reservations Deadline: Friday September 9, 2016 – 4 P.M.

The One-Pay option is back for this year. You can pay a single/onetime fee and receive ALL the regular scheduled chapter meetings (5) and your local membership dues all for ONLY \$98.00. This is a savings of \$22 for the year. You must pay the full \$98.00 with the membership application or renewal to take advantage of this program.

Contact: Chad Miller
Chad.miller@comunale.com
614-338-9812

Reservations must be cancelled within 48 hours, or will be billed.

Future Meetings

October 5, 2016 – MCACO Meeting
November 9, 2016
January 11, 2017
March 8, 2017
May 10, 2017

New Location for Meetings

This year's meetings will be held at the Spaghetti Warehouse at 397 West Broad Street, Columbus Ohio. We will have the option of five different lunch entrées, salad and beverage. Look for our private meeting room near the front lobby.



Home of America's Most Incredible 15-Layer Lasagne

MCACO Joint Meeting

The Mechanical Contractors Association of Central Ohio (MCACO) in conjunction with ASHRAE, ASPE and the **Central Ohio Chapter of SFPE** will sponsor a joint meeting, training class and table top displays on October 5, 2016. The agenda is as follows:

4:30 – 5:30 pm – Code Training Class by Jack Soma.

5:30-6:45 pm – Table Top Displays in Main Hall.

7:00 pm – Buffet Dinner

Cost \$25 (Not included in the One Pay Option.)

Reservation Deadline is Thursday, September 29, 2016 – Noon

Contact: Chad Miller
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614-338-9812

2016 Burn Center Golf Outing **September 26, 2016**

The 27th SFPE/OSU Burn Center golf outing will be held on September 26, 2016 at the Scioto Reserve Country Club. We are once again proud to have the Columbus Firefighters Foundation as our title sponsors.



We are also happy to announce that we are **sold out!** In fact, we have several groups that are going to play at the nearby Kinsale Country Club. To be put on a waiting listing, please contact Jim DiMarzo at 614-560-0489 Email: jdimarzo@industrialsalesco.com.

We still have sponsorship opportunities available and can take donations on our website. Sponsors can upload your company logo and web site address to the registration website.

Benefiting



[Click Here to Register](#)

You can also go to our chapter web site at SFPECOC.webs.com for information and links for registration.

Credit cards are accepted on line and can be accepted at the event for silent auction items.

SFPE Professional Development **Week Coming This Fall**



Are you falling short in terms of required professional development hours (PDHs)? No need to worry—SFPE is here to help!

This fall SFPE will offer three of our most popular continuing professional development seminars in Rockville, MD. Each of these seminars allows you to earn up to 14 PDHs, or attend all three and earn 35 PDHs. Let SFPE help you fulfil your 2016 professional development goals by [registering now!](#)

Professional Development Week **Schedule**

Date: Monday, October 31, 2016

Location: Rockville, MD

Seminar: [Protection of Storage Occupancies - NFPA 13](#)

PDHs: Earn 7 valuable professional development hours for attending the entire seminar

The objective of this one-day seminar is to provide participants with basic knowledge of the available technology and techniques for protecting these very challenging occupancies.

This seminar will review the range of storage types and configurations that exist as well as emphasize the necessary prerequisite knowledge required to competently provide engineering solutions that are both sound in principal and practice while maintaining constructability. Current full scale testing, available modeling and actual events will be a part of this presentation.

Date: Tuesday and Wednesday, November 1-2, 2016

Location: Rockville, MD

Seminar: [Introduction for Fire Risk Assessment](#)

PDHs: Earn 14 valuable professional development hours for attending the entire seminar

This seminar is intended for fire protection engineers and individuals interested in the application of risk assessment in fire protection design. Those who would benefit from this seminar include fire protection and systems engineers, fire protection risk managers, insurance professionals, quality control engineers, architects and others interested in preparing fire risk assessment reports for application to buildings designs utilizing both performance-based and prescriptive code design methodologies. Experience in probability and statistics is not necessary, but helpful.

Date: Tuesday and Wednesday, November 8-9, 2016

Location: Rockville, MD

Seminar: [Protecting Flammable and Combustible Liquids](#)

PDHs: Earn 14 valuable professional development hours for attending the entire seminar

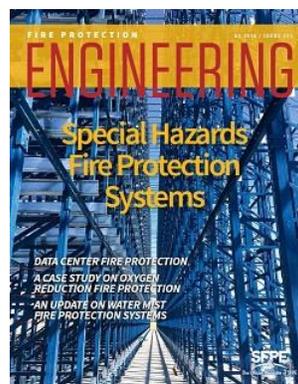
The objective of this seminar is to provide participants with basic knowledge of protection options available in NFPA 30—2015 edition and testing programs that may become the basis for future editions of NFPA 30. This seminar will give an overview of the latest NFPA 30 document, describe fire test results that have

become requirements in NFPA 30, discuss current and future fire testing for protection of flammable and combustible liquids, and describe how to apply NFPA 30 requirements to two case studies involving storage of flammable or combustible liquids.

Registration Information

Complete details and registration information for Professional Development Week is available on the [SFPE website](#).— Let us help you fulfil your professional development needs this fall [register today!](#)

Fire Protection Engineering Magazine



One of the benefits of becoming a national member of SFPE is the Fire protection Engineering Magazine.

The 3rd Quarter Magazine includes the following

Cover Story: Special Hazards Fire Protection: Developments Since Halon 1301 by Jeff L. Harrington.

From the SFPE President: The Most Interesting Person in the World by Milosh Puchovsky.

From the Technical Editor: Education is Key to Raising Awareness of Fire Safety for High-Rise Timber Buildings by Chris Jelenewicz.

Viewpoint: Special Hazards Fire Protection Systems by Rick Scott.

Features

Data Center Fire Protection: Adapting to a Constantly Changing Environment by Lee A. Kaiser.

Oxygen Reduction Fire Protection 101: An Introduction and Case Study by Adam Barowy and Scott Creighton.

An Update on Water Mist Fire Protection Systems by Magnus Arvidson.

2016 Fire Prevention Week



This year’s Fire Prevention Week campaign, “Don’t Wait – Check the Date! Replace Smoke Alarms Every 10 Years,” represents the final year of our three-year effort to educate the public about basic but essential elements of smoke alarm safety.

Why focus on smoke alarms three years in a row? Because NFPA’s survey data shows that the public has many misconceptions about smoke alarms, which may put them at increased risk in the event of a home fire. For example, only a small percentage of people know how old their smoke alarms are, or how often they need to be replaced.

As a result of those and related findings, we’re addressing smoke alarm replacement this year with a focus on these key messages:

- Smoke alarms should be replaced every 10 years.
- Make sure you know how old all the smoke alarms are in your home.
- To find out how old a smoke alarm is, look at the date of manufacture on the back of the alarm; the alarm should be replaced 10 years from that date.

Warehouse Fire Guts Hilltop Cold-Storage Warehouse

[Columbus Dispatch](#)

A cold-storage facility used to hold frozen food was gutted by a fire that began Friday night and continued to burn Saturday.

Columbus firefighters doused the few remaining hot spots with water Saturday afternoon at the 144,000-square-foot warehouse that housed Dick Cold Storage at 3080 Valleyview Drive on the Hilltop.

The warehouse mostly held frozen food, said Battalion Chief Steve Martin, Columbus Fire Division spokesman. Initial reports said the warehouse housed Market Day, a frozen-food provider for school fundraisers, but that company went out of business.

Firefighters started attacking the blaze with water around 9 p.m. Friday but backed off when they learned that the cooling system used to freeze food required anhydrous ammonia, he said.

The chemical “attacks water,” including moisture that could be on someone’s exposed skin, Martin said.



Hazardous-materials cleanup workers were called to monitor the scene. Anyone within a third of a mile of the facility was evacuated, but they were allowed to return Saturday morning.

Firefighters also feared that the warehouse might collapse while they were trying to extinguish the blaze, Martin said. Warehouses use lightweight steel-truss roofing that often is exposed, and Martin said it takes only about 10 minutes for it to weaken under intense heat.

Firefighters pulled back and let the fire burn itself out, Martin said. Once they determined

that the anhydrous ammonia was not a problem, they began to douse the remaining hot spots with water.

“We decided it wasn’t worth risking our lives for,” he said. “We shut down all the water and pulled out all the trucks.”

25 Most Deadly Building Fires of All Time

Fire Science Degree.com

The following 25 fires occurred in the U.S., and they are ranked in order of their deadliness.

1. World Trade Center Attack. World Trade Center, New York, NY: On September 11, 2001, two airplanes crashed into the Twin Towers killing everyone aboard and thousands of those working in the buildings (official death toll set at 2,752). The burning towers collapsed within two hours, destroying nearby buildings and damaging many others.



2. Iroquois Theatre, Chicago, IL: An arc light shorted out and ignited a curtain during a show on December 30, 1903. The theater quickly became engulfed in flames, and 602 people died within 20 minutes.

3. Coconut Grove, Boston, MA: On November 28, 1942, approximately 1,000 people were in the nightclub (official capacity: 460). Flimsy and flammable decorations and furniture easily went up in flames when someone lit a match, killing 492 people and injuring hundreds more.

4. Ohio Penitentiary, Columbus, OH: On April 21, 1930, a candle ignited some oily rags and killed 322 inmates. Chester Himes, an inmate at

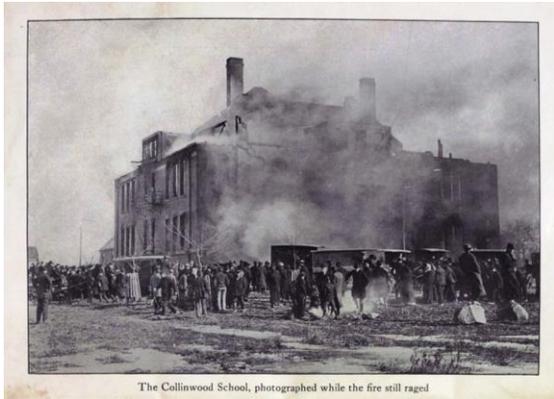
the time, wrote about it in an Esquire story and in his book *Cast the First Stone* (later republished as *Yesterday Will Make You Cry*).



5. New London School, New London, TX: An undetected natural gas leak was ignited by an electric sander on March 18, 1937, causing an explosion and fire that killed approximately 300 people.

6. Rhythm Club, Natchez, MI: On April 23, 1940, a carelessly discarded match is believed to have started the social club fire that killed 209 people, most from smoke inhalation or from being crushed while trying to escape, as the exits had been locked and the windows boarded up to prevent outsiders from looking in and hearing the music.

7. Collinwood School, Cleveland, OH: On March 4, 1908, 172 students, two teachers, and a rescuer were killed when overheated steam pipes ignited nearby wood joists.



8. Rhoads Opera House, Boyertown, PA: A fire started when a kerosene lamp was knocked

over, lighting gasoline from a stereoscopic machine on January 13, 1908. Unable to escape through the one exit, 171 people died.

9. Hartford Circus, Hartford, CT: On July 6, 1944, a fire was started — probably by a carelessly flicked cigarette — at the Ringling Brothers and Barnum & Bailey Circus, killing 156 people and injuring over 700. The tent had been waterproofed with paraffin dissolved in gasoline, which melted and rained down like Naplam.

10 Beverly Hills Supper Club, South Gate, KY: On May 28, 1977, a fire caused possibly by faulty wiring killed 165 people and injured 200.



11. Triangle Shirtwaist Factory, New York, NY: A fire on March 25, 1911 trapped (mostly) immigrant working women and girls behind doors that had been locked by management to prevent them from stealing. Many jumped out of windows to escape, and 148 people died.

12. Cleveland Clinic, Cleveland, OH: On May 15, 1929, an exposed light bulb got too close to nitrocellulose X-ray film and started a fire causing 123 people to die from the fire, explosion, and released poisons.



13. Winecoff Hotel, Atlanta, GA: Now called the Ellis Hotel, this building once was considered

fireproof; yet on December 7, 1946, a fire killed 199 people, including youth at a conference organized by the YMCA and Christmas shoppers.

14. The Station, West Warwick, RI: On February 20, 2003, the band Great White's pyrotechnic props set off a flash fire that burned the nightclub to the ground in six minutes, killing 100 people and injuring 230.



15. Our Lady Queen of Angels School, Chicago, IL: On December 1, 1958, three nuns and 92 students died when smoke, heat, and fire cut off their escape through corridors and stairways.

16. Happy Land, The Bronx, NY: A jealous boyfriend, who was also angry because he had recently lost his job, deliberately started a fire at the social club on March 25, 1998, killing 87 (mostly) ethnic Hondurans celebrating Carnival.

17. MGM Grand Hotel and Casino, Las Vegas, NV: Faulty electrical wiring caused a fire to break out in The Deli restaurant at what is now Bally's Las Vegas Hotel on November 21, 1980. The fire spread through the hotel and toxic fumes circulated via the ventilation system, killing 84 people, almost all from smoke inhalation.

18. Katie Jane Memorial Home for the Aged, Warrenton, MO: On February 15, 1957, a linen closet fire quickly spread through the building, eventually killing 84 people.

19. Golden Age Nursing Home, Fitchville, OH: A fire broke out so quickly on November 23,

1963 that an attempt to call the local fire department proved fruitless when the facility's telephone wires were burned, and 63 patients perished.



20. La Salle, Chicago, IL: A fire broke out in the lower floor cocktail lounge on June 5, 1946, and spread through the hotel by ascending stairwells and shafts, killing 61 people, most from suffocation.

21. Gulf Hotel, Houston, TX: On September 7, 1943, a smoldering mattress thought to have been extinguished burst into flames and quickly spread, killing 55 people (official count).

22. UpStairs Lounge, New Orleans, LA: On June 24, 1973 a Molotov cocktail was lobbed into the gay-friendly bar, and 32 people died from direct immolation or inhalation of fumes.

23. Imperial Foods Chicken Processing Plant, Hamlet, NC: A hydraulic line failure caused a fire on September 3, 1991. Trapped behind locked doors, 25 people were killed and 54 injured.



24. Study Club, Detroit, MI: A carelessly discarded cigarette started a fire that killed 22 people and injured over 50 in the dance hall on September 20, 1929. Most died from suffocation and asphyxiation from toxic fumes emitted by the burning debris.

25. St. Johns School, Peabody, MA: On October 28, 1915, 21 girls between the ages of seven and seventeen were burned or crushed to death while trying to escape a fire.

PE Exam Evolution: Transitioning the Fire Protection Engineering Principles and Practice of Engineering Exam to Computer-based Testing

By Tony Militello, P.E., FSFPE

Fire protection engineering exams were first administered nationally in 1981 by the National Council of Examiners for Engineering and Surveying (NCEES), which, in the United States, is the organization responsible for developing, administering and scoring the examinations used for engineering and surveying licensure. Since then, those seeking to demonstrate minimum competency in fire protection engineering filed into auditoriums, lecture halls, gymnasiums, convention centers, fairground pavilions and other testing locations as diverse as the candidate population to sit for the administration of the fire protection engineering principles and practice of engineering exam.

At its annual meeting in 2010, NCEES decided to begin converting the Fundamentals of Engineering (FE) and Fundamentals of Surveying (FS) exams, traditional precursors to the Professional Engineering (PE) and Professional Surveying (PS) exams, respectively, to computer-based testing (CBT). At that meeting, the Council set a transition date of January 2014. [Read more...](#)

Fires in Dormitories, fraternities, sororities, and barracks

Report: NFPA's "[Structure Fires in Dormitories, Fraternities, Sororities and Barracks](#)"

Author: Richard Campbell

Issued: August 2016

The annual number of fires in dormitories, fraternities, sororities and barracks reported to U.S. fire departments has been substantially higher in recent years than any time prior to 2000. Cooking equipment was involved in the vast majority of fires in these properties. Fires in dormitories, fraternities, sororities, and barracks are more common during the evening hours and on weekends.

Report highlights

- In 2010-2014, U.S. fire departments responded to an estimated annual average of 3,970 structure fires in dormitories, fraternities, sororities, and barracks.
- These fires caused annual averages of 1 civilian death, 35 civilian injuries, and \$15 million in direct property damage.
- 86% of the reported structure fires involved cooking equipment. The vast majority of fires were specifically reported as contained or confined to cooking equipment.
- Structure fires in dormitories, fraternities, sororities, and barracks are more common during the evening hours between 5 p.m. and 11 p.m., and on weekends.

SFPE Job Board

<http://jobs.sfpe.org/>

The Society of Fire Protection Engineers and Fire Protection Engineering magazine are pleased to offer an Internet Job Board site featuring career opportunities in fire protection engineering. <http://jobs.sfpe.org/> is designed for communicating the availability of employment opportunities in the fire protection engineering market. This special job board is ideal both for those seeking to fill positions and those looking for employment opportunities in fire protection engineering.

Job categories include:

- Consulting
- Government
- Insurance
- Research & Testing
- Fire Equipment Manufacturing & Installation
- Education

Whether you're looking to make a career move, or you need to fill a fire protection engineer opening, <http://jobs.sfpe.org/> is just a click away!

Join the National Society of Fire Protection Engineers

The Society of Fire Protection Engineers (SFPE) is the professional organization that represents fire protection engineers worldwide. Through its membership of over 5,000 professionals and 63 chapters, SFPE advances the science and practice of fire protection engineering internationally.



SOCIETY OF FIRE PROTECTION ENGINEERS

For more information, visit <http://www.sfpe.org/GetInvolved/Membership/Join.aspx>.

Web Links

SFPE Central Ohio Chapter
www.sfpecoc.webs.com

Society of Fire Protection Engineers (National) www.sfpe.org

American Fire Sprinkler Association
www.firesprinkler.org

ICC Website
www.iccsafe.org

National Fire Sprinkler Association
www.nfsa.org

N.I.C.E.T.
www.nicet.org

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

OSU Fire Safety Website
www.firesafety.osu.edu

Underwriters Laboratories
www.UL.com

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The FIRE BUCKET is published as a free forum for its members. Opinions expressed herein do not necessarily reflect those of the Society of Fire Protection Engineers, Central Ohio Chapter, or its Editor.

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