President’s Message…

OK, enough. Let it be springtime. No more snow.

Thanks to Fay Purvis of Vector Fire and Gary Ryman of FM Global for their March presentation on ‘Design and Testing of Foam Sprinkler Systems’.

This month we sent a letter to the NJ-DCA on behalf of the chapter requesting that proposed changes to the upcoming state residential code do not exempt the requirement for sprinklers in new townhomes and 1 and 2 family dwellings. You can find the letter inside this newsletter.

Our next meeting will begin with breakfast at 9:00 AM on Monday April 13 at FM Global’s office on 300 Kimball Drive, Parsippany. Dick Davis of FM Global (and former SFPE president) will make a presentation on the ‘Fire Hazard of Rooftop Photo Voltaic Solar Panels’. This morning format is an experiment so please make it a point to attend and let us know whether you find it more convenient than or a pleasant change from our usual evening meetings.

So we can order sufficient food from the caterers and for building security please make your reservation with Vicki by April 7.

Enjoy the weather and I hope to see you on the 13th.

President, NJ Chapter SFPE

Mark your calendars for the annual joint NJ/NY SFPE Chapter annual golf outing. It will be Tuesday June 16th 2015 at the New York Country Club, New Hempstead, NY
President Joe Janiga convened the meeting at 6:06 PM at the Hanover Manor, E. Hanover, NJ with a salute to the flag and the customary Introductions. There were 23 attendees including the speakers.

The minutes from the January, 2015 meeting were read by the Secretary and accepted by the membership.

The Treasurer’s Report for February, 2015 (dated 3/1/15) was approved as presented by Nathan Gorey, Chapter Treasurer.

The chapter approved the membership applications for 2 new members – Ed Bagniewski of the Harrison Construction Dept. and Mark Bagniewski of the Cranford F.D. Ed was approved as a Sub Code Official and Mark as a Chapter Supporter.

Joe Janiga gave an update on some items of interest:

- The SFPE Strategic Plan.
- Naming the golf outing after Jim Goerl

The speakers at this meeting were Gary Ryman of FM Global and Fay Purvis of Vector Fire. The topic was Foam System Design and Acceptance Testing.

The meeting was adjourned at 8:25PM.

2015-2016 Nomination of Officers And Directors
New Jersey Chapter SFPE

In compliance with the Nomination Section of the Constitution and By-Laws of the New Jersey Chapter of the Society of Fire Protection Engineers, the Nominating Committee submits the following slate of Officers and Directors. The election will be conducted at the Annual Business Meeting, scheduled for Monday, June 8, 2015 at the Hanover Manor.

President, Rich Reitberger
First VP, Paul McGrath
Second VP, Mike Newman
Secretary, Chris Vitale
Asst. Secretary, Dave Gluckman
Treasurer, Nate Gorey
Asst. Treasurer, Glenn Buser

Directors
John Antola Jr. (2nd Year – 1st Term)
Jim Loftus (2nd Year – 1st Term)
Tim Costello (1st Year – 1st Term)
Ed Armm (1st Year – 1st Term)

Joe Janiga is Immediate Past President, a voting member of the Board of Directors and the Chairman of the Nominating Committee.

The Nominating Committee and the Board of Directors welcome volunteers to serve in leadership capacities on the Board or Committee activities. Any member with a desire to run as a candidate for Chapter Officer or Director is encouraged to do so. Contact the Chapter Secretary, Mike Newman at mtnewman51@gmail.com by May 4, 2015 which is at least four weeks prior to the Annual Business meeting.

6th Annual Spring Symposium
May 6, 2015
Sponsored by AFAA New Jersey and SFPE New Jersey Chapter

on the fire side with his presentation. This two-day symposium will consist of two speakers in the morning who will present to both groups AFAA and SFPE. The afternoon will split into two rooms presenting either on the building code and suppression or the fire alarm and detection.

Speakers include Mr. Wayne Moore, P.E. FSFPE presenting updates on National Codes, Mr. John Drucker, CET Presenting updates on New Jersey Codes, Mr. Todd Anderson, AIA presenting updates on the ADA, Mr. Robert Upson, MSFPE who will be presenting the changes in NFPA 13 from the 2007 to the 2013 edition. Mr. Jerry Nalis, B.Sc.-Fire Science who will be presenting on a recent large loss fire in wood frame high rise construction and finally Mr. Robert Shoremount who will be wrapping up

Full day attendance will earn you 6.5 contact hours and is approved for CPD, CEU, NJ License, AIA and PE continuing education points. Included with registration is continental breakfast, lunch (with vendors) and breaks. Details and registration is available on the conference website at www.AFAANJ.org.
Washington, DC, March 11, 2015 – The July 2010 explosion and fire at the former Horsehead zinc refinery in Monaca, Pennsylvania, likely resulted from a buildup of superheated liquid zinc inside a ceramic zinc distillation column, which then “explosively decompressed” and ignited, according to a technical analysis released today by the U.S. Chemical Safety Board (CSB).

Two Horsehead operators, James Taylor and Corey Keller, were killed when the column violently ruptured inside the facility’s refinery building, where multiple zinc distillation columns were operating. The rupture released a large amount of zinc vapor, which at high temperatures combusts spontaneously in the presence of air. The two men had been performing unrelated maintenance work on another nearby column when the explosion and fire occurred. A third operator was seriously injured and could not return to work.

The incident was investigated by multiple agencies including the CSB and the U.S. Occupational Safety and Health Administration, but its underlying cause had remained unexplained. In the fall of 2014, CSB contracted with an internationally known zinc distillation expert to conduct a comprehensive review of the evidence file, including witness interviews, company documents, site photographs, surveillance videos, laboratory test results, and data from the facility’s distributed control system (DCS). The 57-page report of this analysis, prepared by Mr. William Hunter of the United Kingdom, was released today by the CSB. Draft versions of the report were reviewed by Horsehead and by the United Steelworkers local that represented Horsehead workers in Monaca; their comments are included in the final report as appendices.

In the years following the 2010 incident, the Horsehead facility in Monaca was shut down and dismantled. The “New Jersey” zinc process, a distillation-based method that was first developed in the 1920’s and was used for decades in Monaca, is no longer practiced anywhere in the United States, although a number of overseas companies, especially in China, continue to use it.

Although this particular zinc technology has ceased being used in the U.S., we felt it was important to finally determine why this tragedy occurred,” said CSB Chairperson Dr. Rafael Moure-Eraso. “Our hope is that this will at last provide a measure of closure to family members, as well as inform the safety efforts of overseas companies using similar production methods.”

The Hunter report was based on expert professional opinion, and did not involve any onsite examination of the evidence. CSB investigators made several short deployments to the Horsehead site in 2010 following the incident, interviewing a number of witnesses and documenting conditions at the site.

The explosion on July 22, 2010, involved an indoor distillation column several stories tall. The column consisted of a vertical stack of 48 silicon carbide trays, topped by a reflux tower, and assembled by bricklayers using a specialized mortar. The bottom half of the column was surrounded by a masonry combustion chamber fueled by natural gas and carbon monoxide waste gas. Horsehead typically operated columns of this type for up to 500 days, at which time the columns were dismantled and rebuilt using new trays.

The explosion on July 22, 2010, occurred just 12 days after the construction and startup of “Column B.” Column B was used to separate zinc – which flowed as a liquid from the bottom of the column – from lower-boiling impurities such as cadmium, which exited as a vapor from the overhead line. The column, which operated at more than 1600 °F, normally has only small amounts of liquid metals in the various trays, but flooding of the column creates a very hazardous condition, the analysis noted. Such flooding likely occurred on July 22, 2010.

“Under extreme pressure the tray wall(s) eventually failed, releasing a large volume of zinc vapor and superheated zinc that would flash to vapor, and this pressure pushed out the combustion chamber blast panels,” Mr. Hunter’s report concluded. “The zinc spray and vapor now had access to large amounts of workplace air and this created a massive zinc flame across the workplace.”

After examining all the data, the report determined that the explosion likely occurred because of a partial obstruction of the column sump, a drain-like masonry structure at the base of the column that had not been replaced when the column was rebuilt in June 2010. The previous column that used this sump had to be shut down prematurely due to sump drainage problems, the analysis found. These problems were never adequately corrected, and various problems with the sump were observed during the July 2010
startup of the new Column B. Over at least an hour preceding the explosion, DCS data indicate a gradual warming at the base of Column B, as liquid zinc likely built up and flooded the lower trays, while vapor flow to the overhead condenser ceased. Ten minutes before the explosion, an alarm sounded in the control room due to a high rate of temperature change in the column waste gases, as zinc likely began leaking out of the column into the combustion chamber, but by then it was probably too late to avert an explosion, according to the analysis. Control room operators responded to the alarm by cutting the flow of fuel gas to Column B but did not reduce the flow of zinc into the column. The unsafe condition of Column B was not understood, and operators inside the building were not warned of the imminent danger.

The technical analysis determined that there was likely an underlying design flaw in the Column B sump involving a structure known as an “underflow” – similar to the liquid U-trap under a domestic sink. The small clearance in the underflow – just 65 millimeters or the height on one brick – had been implicated in other zinc column explosions around the world, and likely allowed dross and other solids to partially obstruct the sump and cause a gradual accumulation of liquid zinc in the column. Liquid zinc in the column causes a dangerous pressure build-up at the bottom and impairs the normal evaporation of vapor, which would otherwise cool the liquid zinc. Instead the liquid zinc becomes superheated by the heat from the combustion chamber, with the pressure eventually rupturing the column and allowing the “explosive decompression.”

The report noted that the Column B sump had previously been used with a different type of column that had a much lower rate of liquid run-off through the sump, so the problem with the sump was only exacerbated when Column B was constructed to separate zinc from cadmium, increasing the liquid flow rate into the sump by a factor of four to five. The report concluded that Horsehead may have missed several opportunities to avoid the accident, overlooking symptoms of a blocked column sump that were evident days before the accident. “Missing these critical points indicates that, in large measure, hazardous conditions at Monaca had been ‘normalized’ and that process management had become desensitized to what was going on. This raises the question whether sufficient technical support was provided to the plant on a regular basis,” according to Mr. Hunter.

The report noted that New Jersey-type zinc distillation columns have been involved in numerous serious incidents around the world. In 1993 and 1994, two column explosions at a former French zinc factory killed a total of 11 workers. An international committee of experts who investigated the incidents in France identified up to 10 other major incidents at other sites attributable to sump drainage problems. The Monaca facility had suffered five documented column explosions prior to 2010, but none with fatalities, according to the CSB-commissioned report.

The CSB is an independent federal agency charged with investigating serious chemical accidents. The agency's board members are appointed by the president and confirmed by the Senate. CSB investigations look into all aspects of chemical accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management systems. The Board does not issue citations or fines but does make safety recommendations to facilities, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Visit our website, www.csb.gov.

For more information, contact Daniel Horowitz at (202) 261-7613 or (202) 441-6074 cell.
The NJ SFPE Chapter Turns 38 in April

The NJ Chapter turns 38 years old this month. The first organizational meeting was held on Dec. 9, 1976 at the Allendale Mutual Insurance office in Short Hills, N.J. with seven national members in attendance as well as members from the New York Metropolitan Chapter. To quote from the meeting minutes, "It was decided that a chapter would be most beneficial to those involved in the northern sector of New Jersey. It was further felt that the amount of work necessary to provide a chapter would be no more than that necessary to provide a branch of the New York Chapter."

The second organizational meeting was held on Jan. 24, 1977 at the same Allendale location with ten national members and executive director Dr. Peter Lund in attendance. Bob LeBlanc was elected as interim president.

The first unofficial chapter meeting was held on Feb. 28, 1977 at the Allied Chemical Corporate headquarters in Morristown, N.J. with 50 prospective members in attendance.

A chapter status request along with the names of 84 charter members were submitted to the National SFPE board of directors on March 2, 1977. Those organizational meetings culminated in a charter that was signed by D. Peter Lund, executive director, and William H. McClarran, president, on April 1, 1977. This charter signified the formal establishment of the twenty-eighth chapter of the society.

The first official meeting was also held at the Allied Chemical corporate headquarters in Morristown, N.J. on April 26, 1977. Bill McClarran, president of National SFPE presented the charter.

Big News from New Jersey: Senate Passes Sprinkler Bill

Certain New Jersey legislators made sure the memory of a massive fire in Edgewater that displaced 1,000 residents wouldn't be forgotten. They've kept their word.

Following the fire that made national headlines, Assemblyman John Wisniewski was hoping to brighten the spotlight placed on his state by reintroducing the New Home Fire Safety Act. The bill calls for the sprinklering of all new, one- and two-family homes. The Assembly approved the bill in February, and it recently passed the state's Senate with a 22-13 vote, per the Burlington County Times.

The article adds that the new rule would take effect seven months after becoming law. The bill now heads to Gov. Chris Christie's desk for his signature. Last legislative session, the same bill made its way through the Assembly and Senate, but the bill died after Christie failed to sign it into law.

Pro-sprinkler legislators are hoping for a different outcome based on recent events. "The images of the [Edgewater] fire raging and the building collapsing in on itself are haunting," Assemblyman Wisniewski stated in the opinion piece. "What's more haunting is to think what could have happened if everyone wasn't able to escape."
The Dangers of Lightweight Construction

New methods of construction negatively impact firefighter safety under fire conditions. Studies point to the failure of lightweight engineered wood systems routinely used in floors and roofs of new homes.

- Related: "Understanding the dangers of modern building materials and furnishings," supplement to Builder Magazine, December 2014
- Related: "Fire sprinklers in new homes: Why should firefighters care?", International Fire Fighter, November 2013
- Related: "It's not lightweight construction. It's what happens when lightweight construction meets fire." NFPA Journal, July/August 2009

Lightweight construction is not the only danger to firefighters. New homes often contain modern furnishings made of mainly synthetic materials which, in a fire, can create a highly toxic environment, greater fuel load, and faster fire propagation. (For more information, download the NFPA's "White Paper on Upholstered Furniture Flammability.") Home fire sprinklers provide added safety to firefighters, protecting structural stability and maintaining tenability by preventing flashover, allowing fire crews to conduct search and rescue operations and perform an offensive fire attack.

FREE PRESENTATION

The dangers of lightweight construction NFPA has updated its popular PowerPoint® presentation aimed at educating community’s decision makers and the public about the dangers of lightweight construction materials under fire conditions. The presentation, "The Threats of Lightweight Construction and Modern Furnishings to Firefighters", includes recent case studies that associate fire deaths with modern homebuilding materials, updated fire statistics, and a new section on the growing dangers of today's home furnishings. The presentation also includes news stories underscoring threats to firefighter and homeowner safety and how home fire sprinklers reduce these risks.

- For a free copy of "The Threats of Lightweight Construction and Modern Furnishings to Firefighters", please send us an e-mail.
- You can also go directly to the NFPA page where the video resides at http://www.firesprinklerinitiative.org/advocacy-tools/lightweight-construction-and-firefighter-safety.aspx
NJ About to Adopt Portions of the International Residential Code

The State of NJ is about to adopt portions of the International Residential Code, see letter below on behalf of the chapter to the Department of Community Affairs.

Gabrielle N. Gallagher
Department of Community Affairs
P.O. Box 800
Trenton, NJ 08625

February 12th, 2015

Dear Ms. Gallagher,

I am writing on behalf of the New Jersey Chapter of the Society of Fire Protection Engineers which represents over 150 professionals working in the state of New Jersey. The mission of the chapter is to reduce fire risk by advancing the art and science of fire protection engineering and its allied fields and by fostering fire protection engineering education.

In the past New Jersey has responded admirably to tragic fires with improved laws protecting the public. In 1980 and 1981 after fatal group home fires in Keansburg and Bradley Beach took the lives of over 70 citizens the state passed the “Boarding House Life Safety Act”. The Act authorized the Housing Finance Agency to finance and grant loans to boarding homes for the installation of life safety improvements such as fire sprinklers. Shortly after that time the New Jersey Fire Safety Commission was formed. In 1984 eight young adults lost their lives at Great Adventure and the fire resulted in legislation and regulations requiring that all “dark rides” be equipped with fire sprinklers, emergency lighting, exit signs and audible warning systems. In 2001 three lives were lost at a Seton Hall dormitory; legislation was swiftly passed requiring all dormitories, fraternity and sorority houses to be equipped with automatic fire sprinkler systems within four years. Leadership was quick to react and respond to these tragic fire events. Since the inception of these regulations and laws not one person has perished in a boarding house, dark attraction or dormitory in the state of New Jersey.

New Jersey is now moving to adopt the 2015 International Residential Code without the key provisions that call for fire sprinkler installation in sections R313.1 and R313.2, yet we would still allow construction methods to be adopted which have been responsible for so much fire loss within our state.

We ask that the State move to adopt the un-amended text from sections R313.1 and R313.2 of the 2015 International Residential Code. We realize that cost needs to be balanced when making any decision that goes into the code making process. However the construction industry enjoys many “trade-offs” that come with the installation of fire sprinklers. We strongly believe that to move forward with those construction “trade-offs” without the requirement to install fire sprinklers will needlessly place our citizens and first responders at risk.

If sections R313.1 and R313.2 had not been included in the 2015 International Residential Code it is clear to us that the International Code Council would have adopted more stringent requirements with regards to fire protection. We would be happy to meet with the administration to further articulate our point of view on this very important subject. We understand there are challenges with the code making process, but we believe that New Jersey is moving in the wrong direction with regards to the non-inclusion of sections R313.1 and R313.2 of the 2015 International Residential Code. We urge you to consider our opinion for the safety of our community.

Regards and thanks for your efforts,

Joe Janiga, FSFPE, President NJ-SFPE
300 Kimball Drive – Suite 200
Parsippany, NJ 07054
Visit us at www.njsfpe.org
MEETING NOTICE

Date: April 13, 2015

Place: FM Global
300 Kimball Drive, Suite 200
Parsippany, NJ

Price: $15.00

Time: 9:00 a.m.

Topic: Fire Hazard of Rooftop Photo Voltaic Solar Panels

Speaker: Dick Davis, FM Global

Call or e-mail Vicki Serafin on attendance by April 7th

PLEASE COMPLETE AND RETURN WITH YOUR CHECK PAYABLE TO “SFPE NJ CHAPTER” TO:

Vicki Lynn Serafin
Affiliated FM Insurance
300 Kimball Drive
Suite 200
Parsippany, NJ 07054
Phone: 973-541-6771 / Fax: 973-541-6909
vicki.serafin@affiliatedfm.com

OR PAY AT THE DOOR

NAME: ____________________________________________

COMPANY: ____________________ TELEPHONE: ____________________
# Meeting Dates/Programs 2014-2015

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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>April 13</td>
<td>This will be the breakfast meeting at FM Global’s office at 300 Kimball Drive, Suite 200, Parsippany. Dick Davis will speak about “Solar Panel Fire Hazard”</td>
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<td>May 6</td>
<td>Joint Seminar with NJ AFAA</td>
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<tr>
<td>June 8</td>
<td>Comparison of UL 286 and ASTM E84’ JC Harrington FM Global &amp; ‘SFPE Update’ Julie Gordon SFPE</td>
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<td>June 16</td>
<td>Joint NY/NJ SFPE Golf Outing will be Tuesday, June 16, 2015 at the New York Country Club, New Hempstead, NY</td>
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**JMCC**

John M. Cholin P.E., FSFPE, M.E.E.

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Cell: 908-837-7711

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**SLICER & ASSOCIATES**

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VM & Fax: 866-395-8172

Member – SFPE & NFPA

sargeslicer@gmail.com
HELPFUL LINKS

ADAAG [http://www.access-board.gov/adaag/about/index.htm]

AFAA National [http://www.afaa.org/]

AFSA [http://www.firesprinkler.org/]

ANSI [http://web.ansi.org/]

ASHRAE [http://www.ashrae.org/]

Campus-Firewatch [http://www.campus-firewatch.com/]

Coffee Break Training [http://www.usfa.dhs.gov/efa/coffee-break/]

CPSC [http://www cpsc.gov/]

CSAA [http://www.csaa.org/]

Municipal Codes (E Codes) [http://www.generalcode.com/Webcode2.html]


FM Global [http://www.fmglobal.com/]

FSDANY [http://www.fsdu.org/regs.htm]

FSI [http://www.firesprinklerinitiative.org/]

FSSA [http://www.fssa.net/]

Fire Tech Productions—Nicet Training (FTP) [http://www.firetech.com/]

Home Fire Sprklr Coalition [http://www.homefiresprinkler.org/]


AFAA-NJ [http://www.afaanj.org/]

International Code Council - [http://www.iccsafe.org/]


The Joint Commission (JCAHO) - [http://www.jointcommission.org/www.JointCommission.org/]

Material safety data Sheets (MSDS-OSHA Site) - [http://www.osha.gov/SLTC/hazardcommunications/index.html]

National of Fire Equipment Distributors (NAFED) - [http://www.nafed.org/index.cfm]

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Do you want your business to be known by over 125 professionals in the local Fire Protection industry? Advertise in the Fusible Link. $100 per chapter fiscal year. Contact Vicki Serafin for more info: Vicki.serafin@affiliated fm.com