President’s Message…

Who knew that Mother Nature reads the Fusible Link? She certainly responded to my comments last month with enough bad weather to cause us to cancel the February meeting. No worries though, Frank Savino has offered to make his presentation about Advanced Technology Smoke Detection sometime in the future so we won’t miss it.

You may remember me talking about changes made by The Society last October to our name, vision and goals to modernize our organization. No doubt you recognize our new logo emblazoned at the top of this page. The SFPE’s president has just announced that all the details have been formalized and have been published. You can find them at www.sfpe.org. At the March meeting I’ll share more with you.

Also note for your advance planning since these are changes from our normal routine. On April 13 we will hold a breakfast meeting at the new offices of FM Global which will be on the second Monday of the month, this will be a regular monthly meeting. This year our annual symposium with the AFAANJ is being held on May 6, rather than during April.

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**Joe Janiga**

President, NJ Chapter SFPE
March 2nd Chapter Meeting Topic Summary

At our March 2nd meeting Gary Ryman and Fay Purvis will talk to us about ‘Foam Systems Design and Acceptance Testing’. Foam Water Sprinkler protection for ignitable liquids fire hazards is an important protection option. Ensuring systems are properly installed, maintained and tested can be a complex undertaking. Fay Purvis of Vector Fire Technology, Inc., and Gary Ryman of FM Global will present a “Reader’s Digest” version of the highlights of installing and taking care of these important systems.

Fay Purvis is president of Vector Fire Technology, Inc., a foam fire protection service company he formed in 1999. Prior to founding Vector Fire Technology, Inc. Fay spent 27 years at National Foam in Exton, PA. While at National Foam Fay served as Director of Engineering and Product Development, Sales Director, and finally General Manager. He has been a member of the NFPA-11 Foam Technical Committee since 1983 and has been serving as chairman of that committee since 2005. Having spent most of his career in foam fire protection he is well versed in all types of foam fire protection systems. Vector Fire Technology, Inc. has concentrated on improved testing methods for foam proportioning systems with special emphasis on environmental issues.

Gary Ryman is a Senior Engineering Specialist with FM Global. He was part of the team responsible for the development of FM Global’s Data Sheet 4-12 Foam Water Sprinkler Systems, and has taught extensively on the subject throughout the company. Ryman also has over 35 years of fire service experience, holding ranks from firefighter to Chief of Department. Gary is also the author of two books, Fire Men: Stories From Three Generations of a Firefighting Family, and the recently published novel Mayday! Firefighter Down.

Tire Warehouse Burns Near BWI Airport

Feb 24, 2015 Source: WUSA9.com

LINTHICUM, Md. (WUSA9) -- Firefighters are keeping a close eye on the smoldering remains of a tire fire near BWI Airport.

The smoke from the fire at K & K Tires in the 800 block of Oregon Avenue in Linthicum could be seen for miles around, including from the Baltimore Beltway.

Crews were called to the scene at approximately 8:30 p.m., say Anne Arundel County fire officials. They found fire coming from a shed on the property.

There were 42 firefighters on the scene with units from Anne Arundel County, BWI Airport and Baltimore City. Firefighters had to battle both the flames and the bitter cold.

Crews tried to keep the fire from spreading to other nearby businesses in the industrial area.

No one was hurt.

Officials have not determined the cause of the fire at this time.

Tire fires can be very difficult to control. Tire fires threaten air, soil and water pollution as tires break down into hazardous materials, according to the EPA.
NFPA’s Brush, Grass and Forest Fires report is an analysis examining the circumstances and causal patterns of brush, grass and forest fires reported to local fire departments between 2007 and 2011.

Local fire departments responded to an estimated average of **334,200** brush, grass and forest fires per year.

On average, **915** were reported each day.

Overall, **1 in 5** of these fires was intentionally set.

- **35%** of these fires occurred in open lands or fields
- **16%** of these fires occurred on highways, streets or parking areas
- **10%** of these fires occurred at one- or two-family homes

9 of 25 costliest (in terms of property loss) fires in U.S. history were described as forest, wildland or WUI fires.

Smoking materials started **47%** of the brush or brush and grass mixture fires that began with wood chips, sawdust or shavings.

**Saturday** was the peak day for natural vegetation fires.

July 4th had almost **5 times** the daily average of 915 fires.

Lightning caused **16%** of forest, woods or wildland fires, but only **4%** of all natural vegetation fires.

Learn more about wildfire preparedness and ways to reduce risk. Visit www.firewise.org.
Huge Exxon Mobil explosion a reminder of refinery dangers *(Los Angeles Times)*

A large explosion Wednesday at the Exxon Mobil refinery in Torrance sent flames into the air, injuring four and leaving residents with a stark reminder of the dangers that come with living in the South Bay’s refinery zone.

The blast occurred at about 8:50 a.m., rattling residents, shattering some windows and forcing students at 14 nearby schools to remain indoors. Seismologists said the power of the blast was the equivalent of a 1.4 magnitude earthquake. It sent a ash-like substance into nearby neighborhoods.

When firefighters arrived at the refinery, Torrance Capt. Steve Deuel said, they found flames likely fueled by gasoline.

When the fire was finally put out, a destructive scene emerged. Portions of the refinery structure were mangled by the force of the explosion, which left debris scattered and two vehicles badly damaged.

Still, the vast majority of the sprawling facilities continued to operate as normal.

The cause of the blast has not been determined, but it occurred in one of the plant's electrostatic precipitators, which are housed in a unit that had been shut down for maintenance in a turnaround, according to California Division of Occupational Safety and Health spokeswoman Erika Monterroza.

Standing 12-stories high and weighing more than 1,000 tons, the electrostatic precipitators reduce ammonia and particulate emissions and were installed to comply with environmental regulations imposed by the South Coast Air Quality Management District, according to company documents.

Cal/OSHA has shut down the fluid catalytic cracker, the larger unit that houses the affected equipment, citing the hazard. Operations will resume when the company can demonstrate it can safely run the unit -- a process that could take days, weeks, or months, Monterroza said.

Turnarounds are considered one of the most potentially dangerous processes at a refinery, which spurred State Sen. Loni Hancock to propose Senate Bill 1300, a law approved in September that requires refineries to file schedules of planned turnarounds.

The law took effect Jan. 1, but employers aren’t required to submit documentation on turnarounds like Wednesday’s until June 15, Monterroza said.

No harmful emissions were detected. But the South Coast AQMD, which was at the refinery assessing air quality, issued the smoke advisory for the area.

The refineries and other energy processing facilities that dot the South Bay have long been towering presences. There have been fewer destructive incidents in recent years. But during the 1980s and '90s, explosions and other accidents at refineries sparked protests and calls for stricter regulations.

In 1994, a gas explosion ripped through Mobil's Torrance refinery, injuring 28 people, at least six seriously. In 1988, one person was killed and nine others were injured in a blast at the refinery. Some of the injured suffered serious burns.

In 1985, two people were killed and 45 injured when a chain of explosions from a gasoline-processing pump tore through an Atlantic Richfield refinery in Carson, sending 5,000-degree hydrogen flames shooting hundreds of feet into the air.

Torrance officials said they are trying to keep Wednesday’s blast in perspective.

“There certainly is a level of concern by the community," said Mayor Patrick Furey, who lives just two blocks from the refinery. “Any time there’s an incident, it heightens our awareness.”

But Furey, who has lived in the South Bay city for more than 30 years, said he considers the explosion an anomaly -- and credits Exxon with implementing safety and community awareness programs during the last two decades.

“We mandate that they run a safe and secure property," Furey said. “To be a good neighbor within the city limits, they have to be that way.”

Resident Gilbert Griego, 70, said he was watching television at home with his daughter-in-law and grandson when the house shook. He has lived near the refinery for about 65 years.

“My daughter-in-law thought it was an earthquake,” he said. “I didn't think it was because I didn't feel the ground move.”

But looking at the flames from his home, which sits near the intersection of Crenshaw and Del Amo boulevards, he said he’s seen worse.

He recalled a 1979 oil tank fire at the Mobil Oil facility that sits behind his house. He said that incident forced the evacuation of his neighborhood.
Keeping Above Ground Tanks From Freezing

With the winter we have had this year with its record breaking low temperatures, the article below while written last year holds even more significance this season.

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Coffee Break Training - Fire Protection Series
Access and Water Supplies: Water Storage Tank Heating
No. FP-2014-18 April 15, 2014

Learning Objective: The student will be able to identify heating and insulation options for aboveground water storage tanks.

The winter of 2013-14 will be remembered by many for the extended range and periods of extremely cold weather. For some people, this is the year the phrase “polar vortex” entered their vocabulary.

While many portions of the world are used to wintertime cold temperatures, there are many that are not, and this may put their fire protection water supplies at risk due to freezing. According to National Fire Protection Association (NFPA) 22, Standard for Water Tanks for Private Fire Protection, where tanks are subject to freezing, methods must be used to maintain the water temperature at or above 42 F (5.6 C) during the coldest weather. (See Coffee Break Training 2012-44.)

The tank in the illustration supplies an automatic sprinkler system and is located in a community where the lowest one-day average temperature is between 5 and 10 F (-15 to -12.2 C). Based on the anticipated ambient temperature and tank size, a combination of tank insulation to conserve energy and immersion electric heaters was authorized by the code official in accordance with NFPA 22.

Insulation materials should be listed and should be installed with protection against fire, exposure, corrosion and weather. When insulation is part of the protection plan, heat-loss calculations based on an average water temperature of 55 F (12.8 C) should be provided to the code official. Heating requirements should be based on design information in accordance with the American Society of Heating, Refrigerating and Air-Conditioning Engineers™ “Handbook of Fundamentals.”

The tank pictured above has two electric immersion heaters installed to maintain the water temperature. Electric heaters and accessories should be of a type listed by a recognized testing laboratory, should have a permanent marking that indicates the kilowatt capacity, and should be installed in accordance with the manufacturers’ recommendations.

The immersion heaters are nearly 100 percent efficient in transferring heat from the device to the water because any heat created is directly absorbed. Immersion heaters should be installed as low as possible in the tank so the warm water will rise for circulation, as well as ensure the heating element remains in direct contact with the water. If exposed to air, the element might overheat and fail.

For additional information on fire protection water supplies, take the NFA Online course “Alternative Water Supply: Planning and Implementing Programs” (Q0217) at http://www.usfa.fema.gov/nfa/nfaonline/browse/index.shtml.

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Footnote: Formed by the merger of American Society of Heating and Air-Conditioning Engineers and The American Society of Refrigerating Engineers.
Where fire protection systems such as sprinklers or water spray take their supplies from static or otherwise open sources (such as penstocks, flumes, rivers, lakes or reservoirs), the intake should be protected by some sort of filtration system. Filtering means can be provided with an approved, double, removable screen or an approved strainer, as shown in the illustration, known as a “Y” strainer. The strainer is the large “can-like” assembly at the left of the picture.

Like many attachments, strainers can affect the incoming water pressure, and their influence should be considered in the fire protection systems’ hydraulic calculations. The amount of pressure lost is determined by the size of the strainer; the values can be obtained from the product manufacturer. One manufacturer’s product includes the following pressure-drop values for its various size strainer assemblies.

<table>
<thead>
<tr>
<th>Strainer Size</th>
<th>Pressure Drop*</th>
</tr>
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<tbody>
<tr>
<td>Inches</td>
<td>mm</td>
</tr>
<tr>
<td>3</td>
<td>76.2</td>
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<tr>
<td>4</td>
<td>102</td>
</tr>
<tr>
<td>6</td>
<td>152</td>
</tr>
<tr>
<td>8</td>
<td>203</td>
</tr>
<tr>
<td>10</td>
<td>254</td>
</tr>
<tr>
<td>12</td>
<td>305</td>
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*Based on flow rates of 15 feet (5m) per second.

Another important consideration is the proper installation of the strainer assembly. In the illustration, the strainer orientation is correct (removable cover at the bottom). The ductile iron pipe at the lower right of the picture is the intake from a storage pond, and water is drawn from the pond through the strainer before reaching the fire pump assembly. A review of the manufacturer’s installation instructions show that the flow direction should be from the top through the strainer intake in this orientation. The manufacturer also permits a horizontal installation with the removable cover nearest the floor. The strainer housing is marked with an arrow to show the correct direction of flow. (See Coffee Break Training FP2012-33 for a discussion on directional arrows for valves and 2007-17 for the importance of straight pipe installations upstream of a pump intake.)

Mainline strainers should be inspected and cleaned after each system flow exceeding that of a nominal 2-inch (50-mm) orifice and should be removed and inspected annually for failing, damaged and corroded parts, with the necessary corrective action taken. If parts of the strainer assembly are plugged or otherwise fouled, they should be replaced or repaired.
MEETING NOTICE

Date: March 2, 2015

Place: Hanover Manor
16 Eagle Rock Avenue
East Hanover, NJ 07936

Price: $30.00

Dinner: 5:00-6:00 (Cash bar)
Dinner at 6 PM

Topic: Foam Systems Design & Acceptance Testing

Speaker: Gary Ryman, FM Global & Fay Purvis, Vector Fire

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

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OR PAY AT THE DOOR

NAME: ________________________________________________________________

COMPANY: ___________________________________ TELEPHONE: __________________


### Meeting Dates/Programs 2014-2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2</td>
<td>Foam Systems Design &amp; Acceptance Testing by Gary Ryman FM Global &amp; Fay Purvis Vector Fire</td>
</tr>
<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 &quot;Solar Panel Fire Hazard&quot;</td>
</tr>
<tr>
<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>
</tr>
<tr>
<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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</tbody>
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**JMCC**

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

J.M. Cholin Consultants, Inc.

Fire Protection Engineering and Consulting Services

2011 Rauschenberg Drive, Oakland NJ 07436 USA

Telephone: 201-337-4621 - Fax: 201-337-5603

jmcc@jmcholinconsultants.com • www.jmcholinconsultants.com

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**OLIVER**

Fire Protection & Security

555 East Main Street

Chester, NJ 07930

Telephone: 908-692-6114

Fax: 908-692-6115

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**Associated Fire Protection**

ROLAND STRATEN, P.E.

100 Jackson Street

Paterson, NJ 07501

(973) 684-4511

Fax: (973) 684-4511

rsstraton@afpfire.com

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**SPLICER & ASSOCIATES**

Fire Protection and Loss Prevention Consulting

J. Sargent “Sarge” Slicer, FSFPE

P.O. Box 1647

West Chatham, MA 02669-1647

Office 508-945-5074

Mobile 978-403-0369

FM & Fax 865-395-6172

Member – SFPE & NFPA

sargeslicer@gmail.com

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**City Fire Equipment Co., Inc.**

733 Route 18 North, East Hanover, NJ 07936

Telephone: (973) 560-2000 ext. 203

Fax: (973) 560-3092 • Cell: (973) 479-6332

Paul M. McGoey, President, APR. (973) 560-2000 ext. 203

www.cityfireonline.com
HELPFUL LINKS

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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/nfa/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.fsdany.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.affiliated fm.com/

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

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