President’s Message…

Last year we had Thanksgiving dinner at my mother-in-law’s house. Before appetizers were finished my son’s girlfriend jumped up and pointed to the front window, a little girl two houses down had run out of her front door crying and shouting that her house was on fire. Someone dialed 911 while I grabbed the extinguisher from mom’s kitchen and trotted over. Sure enough, there was smoke (still sweet) billowing out of the open front door, the sound of a smoke detector and women’s voices inside. The oven fire wasn’t far developed when I got there. A big gooey casserole had overflowed its dish and was spilling grease onto the oven floor where it caught fire. Without needing the extinguisher I was able to remove the dish, put it on a metal tray and cover it with a pot lid. The fire in the oven died out a moment later. Had the fire been given another few minutes it would have spread to the wooden cabinets above and then who knows what would have happened. The women were opening windows and I was walking down the front steps when the fire department arrived.

That little girl was the smartest one of us. She sensed danger, got out of the house and got help. Her family had to find an open restaurant for their Thanksgiving dinner but I can tell you she celebrated the following Christmas at home with her loved ones.

It can happen to anyone. So this year clean your ovens before the holiday cooking begins, use pans under baking dishes in the oven, don’t leave the kitchen while there are things cooking on the stove, keep a pot lid on the counter, check your smoke detectors and have an extinguisher nearby. And if you are faced with fire and don’t know what to do CALL 911 AND GET OUT.

Best wishes for Safe and Happy Holidays. Come join us on December 9 for our next meeting.

Joe Janiga
President, NJ Chapter SFPE
Minutes of the SFPE NJ Chapter Meeting
November 4, 2013

President Joe Janiga convened the meeting at 6:10 PM at the Hanover Manor, E. Hanover, NJ with a salute to the flag and the customary introductions. There were 19 attendees.

The Executive Board meeting was briefly reopened to vote on a new member to the Chapter. A motion was made and passed to accept Joseph DeLuca of Metro Fire and Communications Systems as a member of the NJ Chapter.

The minutes from the September, 2013 meeting were approved as read by the Chapter Secretary. Treasurer Glenn Buser presented the Treasurer’s Report of September - October 2013. A motion was made and passed to accept the report as presented.

Paul McGrath updated the membership on some upcoming events at City Fire Equipment and drew the door prizes for tonight’s meeting. Ed Armm and Jim Burge were tonight’s winners.

Rich Reitberger updated the membership on the recent SFPE National meeting and highlighted that presentations were made by NJ Chapter members Ernesto Vega – Janica and John Cholin.

Joe Janiga was tonight’s speaker and presented several short topics on various aspects of sprinklers, pipe, fire pumps, a developing occupancy hazard that is likely to be prevalent in our region, a brief useful loss discussion and one or two fire test videos of some of FM Global’s recent research.

The meeting was adjourned at 8:05 PM.

NJ CHAPTER MEMBERSHIP DUES

Only about half of our Chapter members have paid their annual dues so far this year. We are about 100 days through the Chapter’s year and would appreciate it if each member would check their records and send in their dues promptly if you have not already done so. It is only $20 for the year.
Fire Destroys Building at Chemical Factory in Granby, Prompts Evacuation Fears

CTV Montreal
Published Wednesday, October 30, 2013 6:32PM EDT
Last Updated Thursday, October 31, 2013 1:46PM EDT

GRANBY -- "I heard the detonation of the fire, like a really big bang," said Tommy Forand, who works nearby. "We have big windows in the office so I saw everything."

Thick, black smoke was visible for kilometres, but while the fire raged for hours no other buildings were in danger of catching fire, because the distance to other structures was too far.

It took several hours to put out the flames, and when the work was done a building lay in ruins.

An explosion at a chemical plant in Granby created thick black plumes of smoke (photo courtesy: Tommy Forand)

Firefighters were worried the smoke could have been toxic, and they told residents they may have to evacuate their homes and head to emergency shelter at nearby schools if the wind started blowing smoke toward a residential area.

The plant makes styrofoam and had sulfuric acid, benzene, ammonia and other dangerous products on hand. However before any evacuation was ordered, workers at the plant were able to inform authorities that the smoke was not toxic.

"We prepared to make an evacuation and the city has the way to take care of people, but we didn't need to do [it]. We had a plan prepared for that. We started our plan, but we didn't need to use it," said Granby Fire Chief Pierre Lacombe.

When the blast started the fire about a dozen employees were inside Aldex Chemicals.

"Nobody was injured, everyone got out safely," said police spokesperson Guy Rousseau.

Officials from the provincial environment ministry rushed to the scene to ensure the smoke was not dangerous. Air tests confirmed that the air was safe.

"I can confirm there's no chemicals that would affect the population in the area. So we're sure of that," said Christian Blanchette.

There remain concerns that runoff from the firefighting efforts could affect the nearby Yamaska river, so officials will be testing soil and water sources to ensure everything is safe.

On Thursday work turned to removing barrels of dangerous chemicals from the factory, with the company's owner trying to convince providers to take them back for storage.

Failing that the materials will be brought to a secure location.

However the roof of one building collapsed, and debris from that section will have to be hauled away before the containers of hazardous material can be transported to a safe facility.

The president of the company told CTV Montreal he was shocked by the disaster, and is very glad that none of his employees, some of whom he hired decades ago, were hurt.

The cause of the explosion is not known.
Investigation of Fatal 2009 Blast at NDK Crystal in Illinois

The Chemical Safety Board (CSB) has produced a great video as a result of their investigation. This 8 minute video can be seen on You Tube at http://www.youtube.com/embed/uo7H_ILs1qc.

In 2009 an explosion at NDK Crystal in Belvidere, Illinois, fatally injured a truck driver at a nearby gas station. The video contains an animation which depicts the stress corrosion cracking that accumulated over time in the walls of the vessel where synthetic quartz crystals were manufactured under extremely high pressures and temperatures.

The accident occurred December 7, 2009, with a violent rupture in the Number 2 vessel. A combination of animation and surveillance video shows how one piece of steel from the building was blown 650 feet, striking a truck driver who was walking back to his vehicle. Another piece – a vessel fragment weighing over 8,000 pounds -- tore through a wall at the facility, skipped across a neighboring parking lot and struck the wall of an automotive supply company where 70 people were working; but only one was injured.

The video displays text of a direct warning by a third-party safety auditor called in by the NDK insurance carrier following an uncontrolled leak of hot, caustic material in January 2007 from the lid of another similar pressure vessel. The consultant concluded the accident resulted from the vessel's improper design, fabrication and material selection, determined four vessels were experiencing stress corrosion cracking, and advised against returning any of the facility's eight vessels into service, saying “far more catastrophic scenarios are possible,” specifically naming danger of public death or injury at the gas station where the truck driver would be killed in 2009. But NDK never established an internal vessel inspection program and did not perform testing on the vessels before returning them to service.

CSB lead investigator Johnnie Banks said, “The video shows how cracking on and near the inner diameter of the vessel fragment reduced the vessel material toughness, which eventually led to large flaws resulting in the catastrophic failure.” CSB investigator Lucy Scialllo-Tyler added, “We hope operators in the chemical industry take away the clear message that warnings and near misses must be acted on immediately to prevent major accidents.”

CSB Safety Videos typically feature detailed animation sequences to depict the chemical processes and sequence of events that led to explosions, fires and releases causing injuries, deaths, damage and destruction of production facilities. They have received accolades from safety professionals around the world, who have told the CSB they use the videos in training, seminars, board presentations and other venues as object lessons in the consequences of inadequate process safety management.
Fire pumps are an essential part of many fire protection systems. They are, however, vulnerable to damage when certain conditions occur in the water supply.

Water emits a vapor over its surface, which produces a certain amount of pressure. This vapor pressure increases as the liquid temperature rises. Water boils when the vapor pressure is equal to or greater than the pressure surrounding the liquid. Vapor pressure is important because of the way it affects pump operation.

Pumps are designed to operate within a given speed range and under a specific set of intake conditions. Operating a pump at excessive speed or at too high an intake lift (from a static water source), restricting the intake, or any other factor that causes the pressure on the water to fall below its normal vapor pressure produces a condition called cavitation. When cavitation occurs, the water vapor released in the low-pressure regions of the pump forms bubbles. These bubbles are carried into the high-pressure sections of the impeller where they collapse with considerable force. This may cause pitting near the impeller surfaces.

Noise is one of the early indications that a centrifugal pump is cavitating. A cavitating pump may sound like a can of marbles being shaken. Other indications that can be observed from a remote operating station are a sudden pressure or capacity loss, fluctuating discharge pressure or flow rate, or an increasing pump speed without corresponding increase in volume or pressure.

Damage signs of general cavitation are on the low-pressure area of the impeller vane. These signs are always characterized as being rough, sometimes jagged with striations running in any direction. Cavitation also causes corrosion, pitting and abrasion. Prolonged exposure to cavitation can form pitting in different parts of the pump.

Cavitation in a centrifugal pump has a significant effect on pump performance. Cavitation degrades the performance of a pump, resulting in a fluctuating flow rate and discharge pressure. Cavitation can also be destructive to a pump’s internal components; it can cause excessive pump vibration or overheating, which could damage pump bearings, wearing rings, and seals.

If cavitation or other damage is suspected, the fire pump assembly should be checked by qualified maintenance personnel, and repairs, if needed, should be made promptly. If the fire pump is out of service for an extended period of time, an impairment plan should be implemented. (See Coffee Break Training 2006-12, for impairment guidance, at http://1.usa.gov/16xO60m.)
Former SFPE President and current NJ SFPE Chapter Assistant Secretary, Rich Reitberger presents SFPE National Chairwoman, April Berkol, with a $1,000 NJ Chapter donation to the SFPE Educational Foundation.

Jeff Mattern, a Fellow at SFPE with Rich Reitberger, former Chapter president and current Assistant Secretary.
MEETING NOTICE

Date: December 9, 2013

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

Price: $30.00

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

Topic: Special Inspections by John Stoppi of AMAA Co.

Speaker: John Stoppi of AMAA Co.

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

Vicki Serafin
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OR PAY AT THE DOOR

NAME: ________________________________________________________________

COMPANY: ____________________________ TELEPHONE: ________________
## Meeting Dates/Programs 2013-2014

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<td>Jan. 6</td>
<td>Topic: Forensic Loss Investigation' by Stephen Hill, PE and/or Steve Venditti, PE of RJA</td>
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<td>March 3</td>
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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/lnf/coffee-break/
CPSC http://www.cpsc.gov/
CSAA http://www.csaaul.org/
Municipal Codes (E Codes) http://www.generalcode.com/Webcode2.html
FM Global http://www.fmglobal.com/
FSDANY http://www.fedany.org/regs.htm
FSI http://www.firesprinklerinitiative.org/
FSSA http://www.fssa.net/
Fire Tech Productions—Nicet Training (FTP) http://www.firtech.com/
Home Fire Sprklr Coalition http://www.homefiresprinkler.org/
AFAA-NJ http://www.aflaunj.org/
National of Fire Equipment Distributors (NAFED) - http://www.nafed.org/index.cfm

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