President’s Message....

I wish all Happy Holidays as we approach the new year of 2018!

We closed out a great NJSFPE year with our annual holiday cocktail hour and buffet. There were 32 attendees and we received 3 more applications for membership.

Tristan McKintosh, CEO of SafeSpill LLC made a presentation on Spill Protection for Flammable Liquids. Vinnie held a tricky tray sponsored by the Engineers’ Club for the benefit of homeless veterans here in New Jersey.

Rich Reitberger announced positive results for the first year of the NJ-NY Metro Education Foundation and plans for seminars in 2018. The chapter also nominated and elected Chris Vitale to represent us on the foundation next year.

Fire Facts Seminar #25 will be held at Princeton and Seton Hall Universities, January 4th and 5th, respectively. The topics this year will include Fire Stop, Carbon Monoxide Alarms, Impairments and Hot Work. NJSFPE is a sponsor and will have a table presenting our organization to the attendees.

Mark your calendars now! On Monday January 8th, Jerry Naylis will be presenting on ‘Recent Fire Losses’ Lesson Learned’. This always proves to be an enlightened topic. I look forward to seeing you there.

Paul

Chapter President
Pres. Paul McGrath called the meeting to order at 6:00PM with the salute to the flag and usual introductions. There were 32 in attendance. Applications for three new Chapter Members were accepted by vote. Congratulations and welcome to Ben Polanski of Frankle, Trevor Sahadatalli of First Fire and Steve Strause of Elizabeth FD.

The minutes of the October meeting were approved by the members. Treasurer’s report will be presented at the January meeting.

Paul announced that Fire Facts #25 will be held in January at Princeton University on the 4th and Seton Hall on the 5th. Flyers were circulated and you can visit City Fire’s web site for details.

Paul also discussed the fire extinguisher recall by Kidde and circulated details of that program.

Rich Reitberger announced the results of the Education Foundation’s first year of operation including scholarships awarded, financial results and plans for a seminar in late 2018.

Following dinner Mr. Tristan Mackintosh of SafeSpill gave a discussion of their Spill Protection System for Flammable Liquids. The system is an enclosed, modular, perforated top flooring/sump arrangement. It operates with a fiber optic liquid detection system interlocked to a water wash that flushes the spill to a containment tank. A typical size 200 sf floor will use about 15gpm of flushing water at about 20psi. This water is separate from any water based fire protection system. From some of the videos Mr. Mackintosh showed it appears that a burning liquid spill is abated or reduced as it passes through the perforated floor and flushed away; the fire is out when spilled liquid reaches the containment tank. The company has been tested at FM Approvals with a 40gal heptane spill and reportedly, depending or arrangements the system can be designed for 5 to 125 or 125 to 800gal spills. The company is developing a containment shed with this same flooring intended for up to 18 plastic IBCs up to 3 high. For more details browse www.safespillsystems.com.

Following the presentation there was a tricky tray sponsored by the Engineers’ Club for the benefit of NJ homeless veterans.

Meeting was adjourned at about 8:15PM.
Austrian Gas Pipeline Explosion Disrupts Key EU Supply Hub

(Bloomberg) -- An explosion at a key European natural gas hub in Austria killed at least one person and caused supply disruptions that roiled the continent’s energy markets. At least 21 people were injured and one missing and presumed dead after the blast at Gas Connect Austria’s hub in Baumgarten shortly before 9 a.m. local time, according to a statement from the operator. The company, which is 51 percent owned by OMV AG, doesn’t know what caused the blast.

“There is severe damage at the station,” Gas Connect Austria’s Armin Teichert said. OMV AG spokesman Robert Lechner said the “restoration of the Baumgarten hub isn’t a question of hours, but days” and that “alternative routes may be able to compensate for the Baumgarten halt.” The facility, about 50 kilometers (31 miles) northeast of Vienna, is a key link for Russian natural gas entering Europe accounting for about a 10th of the continent’s supply. In 2014, OMV signed a deal with OAO Gazprom to strengthen Baumgarten’s long-term role in European energy markets.

The explosion disrupted southern gas flows toward Croatia, Italy and Slovenia, according to Teichert. Lines running east to west are unaffected and operating normally. Four hours after the blast, emergency workers were swarming the Baumgarten gas hub. A police helicopter circled smoking debris. Fire engines sped along the narrow road leading to the site, itself surrounded by sprawling farmland.

“I came rushed out after the blast,” said Walter Hansie, 88, standing in front of his grandson’s tractor shed about 1 kilometer away from the blast. “There was a fireball rising in the air when I got out. Nothing like that ever happened here before.”

An Austrian worker inside the plant died in the conflagration, according to Andreas Rinhofner, a spokesman for Austria Gas Connect. The company, 51 percent owned by OMV AG, is still looking into the precise cause of the incident.

Italy declared a gas emergency after the explosion threatened to limit its supplies. The nation’s pipeline operator, SNAM SpA, said supplies to Italy are guaranteed by storage it has available.

“Italy should be able to cope with their storage facilities,” Bernhard Painz from the Austrian gas regulator said on the phone. “The state of emergency is more of a formal procedure. We can’t say yet when full flows will resume.”

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The following is a video link on this loss:


CSB Releases Preliminary 2D Animation of Events Leading to 2017 Fire at Arkema Chemical Plant in Crosby, Texas

CSB has produced a video placed on You Tube of the above fire as a result of flooding due to Hurricane Harvey in August 2017. The link to the video is:

https://www.youtube.com/watch?v=WZmUVQMh9qM
High-rise fire threat stirs push to change rules across country

By Zhang Yan | China Daily | Updated: 2017-12-13 07:35

Fire control authorities will try to push local governments to slow the development of high-rise buildings and reduce the security risks of existing ones to prevent human and property losses, a senior official said.

China now has 619,000 buildings taller than 24 meters and apartment buildings taller than 27 meters, according to the Fire Control Bureau of the Ministry of Public Security. It said 42,000 of them have illegally used flammable external insulation materials.

Of all high buildings, 6,457 are super-high-rises of more than 100 meters, and the number has been growing by 8 percent a year — 2.5 times of the world’s average growth rate of such super high buildings, said Du Lanping, deputy director of the bureau.

"Such high buildings are usually with complicated structures and multiple functions. Once a fire breaks out, it’s hard to put it out and will result in heavier losses compared with other types of buildings," she told China Daily.

Firefighters also may face some practical difficulties, such as water supply and glass curtain walls, which could make it more difficult to put out a high-rise blaze, she said.

Figures from the bureau show that in China this year, there have been 5,046 fires in tall buildings, causing a direct economic loss of more than 80 million yuan ($12.1 million). In the past 10 years, the total number of such fires was 31,000 nationwide, claiming 474 lives with an economic loss of 1.56 billion yuan.

The latest big fire occurred on Dec 1 in a high-rise in Tianjin, killing 10 and injuring five. The fire broke out on the 38th floor in piles of discarded decorations and other materials, but fire control facilities failed to function because the construction enterprise had privately drained stored water for firefighting, according to the initial probe by the municipal government. Eleven people have been detained and the exact cause is still under investigation.

"We’re still facing a grim task in fighting blazes in high-rise buildings and are making efforts to eliminate the hidden dangers," Du said.

She said that in the previous years, flammable external insulation materials were often used for tall buildings, posing a serious fire risks.

Many tall buildings lack routine fire control checks or proper management, resulting in the congestion of evacuation passages, the damage of firefighting facilities or messy electric wires, which all may lead to fires, Du said.

In July, the bureau launched a six-month special security campaign of tall buildings across the country, and has rectified 161,000 hidden fire risks, according to the bureau.

Du said fire control authorities are coordinating with other departments to further reduce fire risks, such as drafting a fire control regulation for tall buildings.

"The regulation will have specific stipulations on management responsibilities and standards for such buildings," she said. "In the future, fire control departments will also try to push for the amendment of the Fire Prevention Law to slow down the development of high buildings nationwide to reduce urban security risks."

Conspicuous signs will be installed on buildings with flammable external insulating layers, and no source of fire or fireworks are allowed near such buildings, she said.

Moreover, more high buildings will be equipped with automatic fire extinguishing facilities and these facilities are expected to be connected in a remote monitoring system of fire control departments.

Once they get damaged, a warning will be sent to the monitoring system to remind supervisors.
Looking at the Business Impact of Fire Suppression in the Data Center

Carl Bryan of Wagner UK looks at how fire suppression can go further in the data centre, to protect crucial business assets.

Until very recently fire protection, although a legal building requirement, has been viewed as an afterthought by many in the IT sector.

We are now deep into the digital age, where technology and electronic information plays a vital part of daily life. How can it be then, that protection from the effects of fire is not seen by IT stakeholders as a vital component of infrastructure in much same the way as adding a roof to a building?

Consultants are often focused on utilising the latest smart technologies, insulation, cladding and flame-retardant materials in order to make the building both efficient and safe. However, operationally the end user still remains at risk from “the effects of a fire”.

Do existing fire regulations go far enough, or should we now look at business continuity in the same light as life safety and structural integrity?

It is entirely possible to install a fire detection and alarm system designed to meet the minimum level of building codes, legally ensuring the safe evacuation of personnel, but allowing enough time for the effects of fire to make the infrastructure unusable for a significant time following the incident.

So, aren’t automatic water sprinklers the answer? Not always!

Fire suppression and data centre functionality

The presence of automatic fire safety systems does not always protect the functionality of the facility, particularly in terms of the electronic equipment rooms which are required to maintain a business’s effectiveness.

John R. Hall, Jr’s. Computer Rooms and Other Electronic Areas report in March 2012 for the NFPA showed that 78% of non-residential electronic equipment room fires begin with the equipment within the risk, electrical distribution, lighting equipment heating, ventilating or air conditioning.

Detectors were reported present in 77% of these non-residential structure fires and even where sprinklers were reportedly used in 35% of those fires, the associated annual average estimated loss was $11.9 million (approx. £9 million) in direct property damage.

Building fire regulations focus on life safety systems and structural integrity, and while they are to be applauded for bringing about a reduction in the number of deaths and serious injuries year on year, does it go far enough? Or should we now look at business continuity in the same light?

High-risk areas such as the maritime, oil, nuclear and chemical industries have put an emphasis on rapid detection and extinguishing in the past 30 years to prevent the spread of fires. Whilst driven initially by safety authorities and classification bodies the risks and subsequent downtime have also reduced over decades.

Marine facilities essentially maintain their integrity to stay afloat and thus allow personnel to survive. The same could be said of technology businesses, which must maintain continuity to transmit digital information for business survival.

There is an old fire industry adage that 40% of businesses don’t survive beyond 12-18 months after suffering a fire. Looking longer term, FM Global has found that within three years bankruptcy affects almost a third of all fire-affected companies.

Detection at the early stages of a fire

Fire protection engineers attempt to maximise the benefits of specific extinguishing media ranging from water to gas, powder to foam and various combinations to create fire extinguishing systems that essentially still follow similar basic extinguishing principles – ‘the removal of oxygen and/or heat.’

When used in combination with the appropriate fire detection methodology, activations should occur at the initial stage of a fire (limiting false alarms). There are a number of alternative methods to fire protection, such as creating a low oxygen (hypoxic environment) to prevent a fire propagating, whilst ensuring a safe level of oxygen to sustain life, but low enough to reduce the possibilities of flame taking hold.

The key is to choose the appropriate clean extinguishing agent that limits equipment damage, maintains continuity and remains environmentally acceptable.

Hospitals, traffic control, factories, distribution centres and infrastructure rely on enormous digital conduits to deliver large volumes of electronic information virtually instantaneously. A critical path analysis and stress test conducted on networks can illustrate numerous instances of single points of failure, particularly located close to the end-user.

Large data centre outages can have far-reaching and significant effects for individuals as well as specific businesses. Consequently, web-hosting and major internet service providers often design multipoint failure paths and build in redundancy to their systems. Recently they have also begun to ensure that their fire strategies are robust, assisted by such bodies as VdS and FM.

Hospitals, factories and university campuses that contain computer and plant rooms are just as essential to end to end network communications. Unfortunately, individuals using these networks are often reliant on local IT constrictions and single points of failure that leave them exposed to loss of data should a fire break out.

The advent of the cloud and the planet seemingly connected by the web rather than physically, has pushed the danger of exposure to fire in the background.
In businesses that don’t recognize the worth of additional capital investment, the fire engineer’s advice for additional, non-legislated equipment is often ignored, instead opting for specifically focused fire protection equipment.

The long term benefits of good fire systems

Well maintained installations can last for up to 20 years, which is often greater than the envisaged lifespan of the building. As such, an investment at the beginning can be a major factor in maintaining continuity.

The advent of the internet of things, cloud-based technologies and our planet seemingly connected by the world wide web rather than physical infrastructure, has pushed the danger of exposure to fire in the background.

Are we now at a point where it is necessary to force those designing, building and managing IT facilities to act? Is it possibly time to call for legislative support to protect critical information hubs, in much the same way that we have rules for ‘life safety’ detection and alarms systems as a minimum?

Additional regulation may be a step too far as the benefit of lower insurance premiums can sway the decision makers, but it stands to reason that when automatic fire protection systems are employed, lower incidence rates of medium and large fires are able to propagate before the arrival of the fire brigade.

As a result of this, less damage is caused, which alone must have some bearing on the need for more active fire protection systems being installed.

One stumbling point could be that if broad brush legislation were pushed through, it could lead to a U.S. style of protection of all buildings by sprinkler deluge systems thereby protecting the fabric of the buildings and egress but again not specifically targeting the stored information and critical transmission conduits.

For a deluge water sprinkler system to be activated the fire must either have already reached a stage of development with sufficient heat to activate the bulb or alternatively be triggered directly by a smoke detection system. The downside being the secondary damage caused, with resultant financial losses and increase facility downtime.

Facilities protected with either hypoxic systems or using high sensitivity smoke detection system to trigger an extinguishing system at the earliest possible moment can avoid initial operation of the sprinkler systems and allow un-affected areas to be utilized.

In 1894 Oscar Wilde said, “it is a very sad thing that nowadays there is so little useless information.” 100 years later DARZ GmbH, an award-winning German data centre service provider, has as their motto: “Data is more valuable than money!”

Raising the fire protection bar for critical IT infrastructure to those levels attained by other industries is definitely feasible. Protection and prevention solutions are already available but there has to be the will to use them. As such, an emphasis on the effects of fire on business, as well as lives, could be instrumental.

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**5 injured after explosion at UTC plant in Vergennes**

**VERGENNES, Vt. —**

Five people were injured Friday afternoon after an explosion at UTC Aerospace Systems in Vergennes. One person was treated at the scene, four people were transported to Porter Medical Center and one person was later transferred to UVM Medical Center in Burlington.

A representative from Porter Medical Center said he does think the three people they are treating will be released by Friday night. The Vergennes Fire Department said the explosion happened just before noon. The plant is in the 100 block of Panton Road.

NBC5 viewers reported hearing an explosion and feeling shaking in nearby homes. "It was really scary. I saw people running and I don’t know if anybody was hurt. I can assume there must have been with such a traumatic explosion," neighbor Robin Little-Lebeau said. "There was a gigantic plume of smoke it started out white and turned pitch black."

A company spokesman said there was an explosion and all employees were evacuated. "Our thoughts are with those affected and we are working with emergency responders to ensure that they receive the appropriate care and relief," the spokesman said. He said everyone was accounted for. No additional information was released.

The town police chief said a dust collector on the outside of the building blew up. It also caused interior damage. Vermont Emergency Management spokesman Mark Bosma said there was a fire at the facility. He said a portion of Panton Road was closed. Witnesses said they did not see smoke or fire at the buildings. According to its website, UTC Aerospace Systems is one of the world’s largest suppliers of technologically advanced aerospace and defense products.

The Vergennes complex deals with fire protection systems and fuel measurement and management systems, among other things.

The company employs 41,000 people worldwide, including 775 in Vergennes. Its headquarters is in Charlotte, North Carolina.
Donate today and help a Fire Protection Engineering student reach their goal of becoming an FPE. Your donation is also tax deductible. www.njspe.org/scholarship_fund_donations
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<td>Protection of Auto Storage &amp; Retrieval Systems—Joe Janiga, FM</td>
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<td>March 5</td>
<td>Wireless Fire Alarm Systems—Jason Crouch, Johnson Controls</td>
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<td>April 19</td>
<td>Chapter Technical Seminar—Details to follow</td>
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<td>May 7</td>
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<td>Dave Barber, Principal Engr, Arup—Topic: “Tall Wood Buildings”. Annual Chapter meeting and election of officers.</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/
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.fsday.org/regs.htm
FSI http://www.firesprinklerinitiative.org/
FSSA http://www.fssa.net/
Home Fire Spklr Coalition http://www.homefiresprinkler.org/
AFAA-NJ http://www.afaanj.org/
National of Fire Equipment Distributors (NAFED) - http://www.nafed.org/index.cfm

2017-2018 Chapter Committees

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Vicki Serafin, Chairperson
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Paul McGrath, Chairman
Nominating
Marvin Maradiaga
Jim Burge
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Vanessa Gallagher, Chairman
Rich Reitberger
Archivist/Historian
Jim Tolos, Vicki & Nicole
Speakers Gifts
Rich Reitberger
Communications
Fusible Link—Brad Hart
bradhart07438@yahoo.com
Ana Cristostomo—Coordinator
Communications-Other
Paul McGrath
Mike Newman
Mailing/Automated E-mail—Vicki Serafin, Chairperson
Webmaster—Mike Newman & Paul McGrath

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Full Page - $ 100

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Any questions call Vicki at 973-541-4771.

Thank you for your continued support!