We are excited to be hosting our first joint event with the local PEO Chapters, on May 11, 2021.

The details of the event are included below. We will have 7 speakers discussing six current topics of interest for the fire protection engineering industry.

The cost will only be $10 for the full-day event and all proceeds will be donated to our local charities as with all our events this year.

TOPIC	Time	Speaker / Speakers
Welcome everyone to event	9:00am	Derek Gruchy and Jim Chisholm
Establishing Offensive Firefighting Tactics for Light-weight Construction	9:15am	William Baker, Division Chief
Fire Design Considerations for Tall Wood Buildings	10:15am	Lindsay Ranger Christian Dagenais
Encapsulated Mass Timber: A New Construction Type for the 2020 NBC	11:15am	Marc Alam
Lunch Break	12:15pm	Lunch Break
Smoke Control Systems - Testing and Maintenance	1:00pm	Ali Asraei
CAN/UL-9540 and CAN/UL 9540A, Energy Storage Systems Standards NFPA 855 and Firefighting Concerns for Stationary Energy Storage Systems	2:00pm	Brian McBain Shayne Mintz
Closing Remarks	3:00pm	Derek Gruchy and Jim Chisholm

Bios of each speaker are included on the following pages.

The attendance link invite will be emailed on May 7, 5pm. A follow-up email will be sent on May 11, 7am, for those who register after the first email has been sent.

To register for the event, go to: [SFPE Southern Ontario - Home (sfpesoc.com)]

We hope this year has been as interesting as we think it has been; thank you to all of our speakers and to each attendee who supported these events! Our industry thrives with the energy and passion you display for life safety!

If you have any questions, comments, or feedback with respect to our 2020-2021 season, we would love to hear from you. Please feel free to contact any of our Executive Committee. We look forward to hearing from you and look forward to seeing you (virtually) in the near future.

Sincerely,

Your 2020-2021 Chapter Executive Committee
SFPE Southern Ontario

William Baker

Toronto Fire Service: Division Chief

Speaker Bio: William Baker has over thirty years of experience with Toronto Fire Services (TFS); twenty-seven and a half in Operations and the last two and a half years in Training. He has progressed from Firefighter to Captain in the Operations Division and then to Division Chief in the Training Division. He was behind the biggest change in high-rise firefighting that TFS has ever seen. The 38mm high-rise pack (fog nozzle) was replaced with 65mm Hose Packs and Standpipe Kits (smooth bore nozzle). He was also instrumental in the improvement of TFS firefighting equipment, such as:

- Design and procurement of two Highrise Response Vehicles
- Pressurized Water Can Extinguisher
- Upgraded nozzles to improve flow and extinguishment capabilities
- Extensive testing of 45mm and 65mm jacketed hose with culmination of a new hose spec for TFS
- Procurement of specialty nozzles for residential balloon frame construction as well as, high-rise buildings

Presentation Title: Establishing Offensive Firefighting Tactics for Light-weight Construction

Presentation Abstract: This seminar I will discuss an offensive mindset and tactics versus a defensive mindset and tactics based on a proper size-up upon arrival of fire apparatus. I will be discussing the differences between fighting fires in occupied finished buildings (protected) versus buildings under construction (unprotected). Discussion on building construction and techniques currently. There will be a discussion on firefighting tools used to combat fires or assist firefighters in light-weight construction:

- **Roof Operations Safety Platform**
- **Bresnan Nozzle – handheld or deployed from an aerial device**
- **Eave Fire Attack, Gable End Fire Attack, Void Space Fire Attack**
- **Aerosol Extinguishers**

In conclusion, I will speak about training for fire attack for light-weight construction from recruit to senior firefighters and officers.

Lindsay Ranger, P.Eng., M.A.Sc.

FPInnovations: Scientist

Speaker Bio: For the last ten years Lindsay has worked as a scientist at FPInnovations and has recently been supporting the Green Construction Through Wood team at Natural Resources Canada. Her research has focused primarily on fire testing and fire performance of mass timber to advance wood construction in Canada. She is also pursuing her PhD related to the fire performance of mechanically laminated timber at Carleton University. She is currently transitioning to a new role as a Fire Protection Engineer at the Canadian Nuclear Laboratories.

Christian Dagenais, P.Eng., Ph.D.

FPInnovations: Lead Scientist

Speaker Bio: Christian is a Lead Scientist and Project Leader in the Building Systems group at FPInnovations where his main research topics are fire resistance, reaction to fire, performance-based fire design, fire modelling and fire safety engineering. He has participated in several performance-based designs allowing to build timber buildings that would have otherwise been required to be of non-combustible construction. He is actively involved in several technical committees on fire tests, fire safety engineering and timber design, such as ULC, ASTM and CSA. He is currently the ISO TC 92 Canadian Mirror Committee Chair responsible for developing international standards on fire safety.

Presentation Title: Fire Design Considerations for Tall Wood Buildings

Presentation Abstract: Are you interested in capitalizing on the wood revolution? And did you know that Canada is a leader in mass timber research and production of engineered wood products? Now is the time to start building with wood to take advantage of all its benefits; sustainability, speed of construction, and stimulating the Canadian economy. This presentation will ease all of your fire safety concerns related to mass timber. We are going to address tall wood fire design considerations, recent local and international fire research, fire test results, performance-based fire design, new wood products, changes to US code requirements, and yes, we have fire videos!

Marc Alam

Canadian Wood Council: Manager of Codes and Standards – Fire

Speaker Bio: Marc Alam is a member of the Canadian Wood Council. As Manager, Codes and Standards in the fire division, Marc assists through participation in CWC's building code and standards fire-related initiatives and the development of CWC's fire design tools, as well as code-related fire research projects.

Presentation Title: Encapsulated Mass Timber: a new construction type for the 2020 NBC

Presentation Abstract: This seminar will discuss the fire-related national building and fire code changes related to a new construction type called Encapsulated Mass Timber Construction (EMTC) to be used for wood buildings up to twelve storeys. As well, it will provide an overview of ongoing fire research at the National Research Council of Canada into various performance aspects of mass timber construction and tall wood buildings.

Ali Asraei, P.Eng

Jensen Hughes: Fire Protection Consultant

Speaker Bio: Ali Asraei is a Professional Engineer with over 15 years experience working in the Fire Protection industry. Ali's expertise includes fire alarm system design for commercial, aviation, transportation, industrial facilities, and residential; construction management and commissioning; fire alarm system Code compliance review and condition assessments. His expertise also includes oversight on large scale projects involving architectural, electrical, and mechanical systems design and integration to ensure fire and life safety compliance with applicable Codes and Standards; Building Code and Fire Code Inspections; and Life Safety and Fire Protection Consulting.

Ali is a member of ULC working group for CAN/ULC-S536 *"Standard for Inspection and Testing of Fire Alarm Systems"* and CAN/ULC-S537 "*Standard for Verification of Fire alarm Systems".* Ali also teaches part time at Seneca College, School of Fire Protection Engineering.

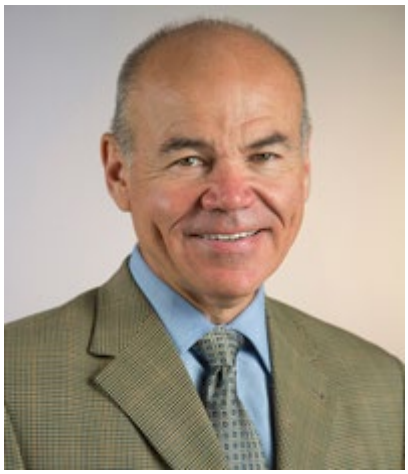
Presentation Title: Assessing, Testing, & Maintaining Smoke Control Equipment in High-Rise Buildings

Presentation Abstract: Provisions required by the OBC to limit the smoke movement in High-Rise buildings to prevent the danger to occupants and emergency crews from exposure to smoke when the building is in fire. This needs to be achieved by following the requirement of Article 3.2.6.2. of the OBC, as well as Measures listed in MMAH Supplementary Standard SB-4, *"Measures for Fire Safety in High Buildings"*. Once the smoke control systems are designed and installed, it is crucial to provide proper maintenance to ensure proper operation of the system. The requirements to maintain smoke control systems in Ontario is driven by Section 7.3 of the Ontario Fire Code which requires the designer of the system, or another engineer, to establish a periodic maintenance procedure for the system. The Fire Protection industry has identified that the majority of smoke control systems are not being properly maintained and tested. This is due to existing buildings not containing an approved test and maintenance procedure in place.

In this presentation, the requirements for some typical smoke control measures that are commonly found in new and existing buildings will be reviewed, some suggested steps that should be taken to conduct an initial test and provide a test and maintenance procedure to meet the requirements of the Ontario Fire Code will be discussed.

Shayne Mintz

NFPA: Canadian Regional Director



Speaker Bio: Shayne Mintz is the Canadian Regional Director for the National Fire Protection Association and has over 4 decades experience in fire and life safety. Shayne has served as fire chief for the City of Burlington, ON and has held the position of assistant deputy fire marshal in charge of Fire Protection Services for the Office of the Ontario Fire Marshal. Mr. Mintz has a Bachelor of Arts and a Masters of Public Administration degree and is also a member of the Institute of Fire Engineers (MIFireE). He also holds Chief Fire Officer designation from Dalhousie University and the Canadian Association of Fire Chiefs

About the National Fire Protection Association (NFPA)
NFPA is a worldwide leader in fire, electrical, building, and life safety. The mission of the international nonprofit organization founded in 1896 is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education. NFPA develops more than 300 codes and standards to minimize the possibility and effects of fire and other hazards. All NFPA codes and standards can be viewed at no cost at www.nfpa.org/freeaccess.

Presentation Title: NFPA 855 and Firefighting Concerns for Stationary Energy Storage Systems

Presentation Abstract: The new NFPA 855 – Standard for Installation of Stationary Energy Storage Systems (ESS) is a key resource for meeting the challenges of safeguarding the installation of modern energy storage systems.

The use of ESS is rapidly multiplying around the world and while these high-energy, small-footprint systems provide clean, low-cost, long-duration sources of energy, they may also present significant life safety hazards, especially in fire situations. The standard addresses the dangers of toxic and flammable gases, stranded energy, and increased fire intensity associated with them.

This presentation will provide those who design, build, maintain, inspect and respond to ESS facilities with the information they need to prepare for ESS safety.

Brian McBain

ULC Inc: Senior Regulatory Services Representative

Speaker Bio: Brian McBain has over 26 years of experience in fire and emergency services and has worked in all aspects of fire and life safety. He presently works for Underwriters Laboratories of Canada (ULC) as a Senior Regulatory Services Representative where he assists regulatory authorities across Canada in all disciplines with regards to ULC certifications and ULC Standards.

Brian has worked at ULC for 15 years. Previously, he served three years at the Ontario Office of the Fire Marshal as a Fire Protection Specialist, worked nine years in the Fire Protection and Life Safety industry and currently has 26 years of service as a volunteer Firefighter. He also serves on various committees including the NRC Standing Committee on Hazardous Materials and Activities, TSSA – Liquid Fuels and Fuel Oil Risk Reduction Groups, and numerous ULC Standards committees. Brian holds a Fire Protection Diploma from Algonquin College.

Presentation Title: CAN/UL-9540 and CAN/UL 9540A, Energy Storage Systems Standards

Presentation Abstract: Over the past several years, a significant effort has been made to address energy storage system (ESS) safety, especially those systems that use batteries as their source of energy. New technologies are now widely deployed in an already established infrastructure. While innovative, these technologies do not come with a long-standing history of use in our current infrastructure. This can cause concern from regulators, fire marshals, electrical inspectors, building owners and other industry stakeholders about the safety of these systems and how to best integrate them into facilities.

This presentation will provide a brief overview of the two UL binational standards for energy storage systems that were developed to address these concerns; CAN/UL 9540, Standard for Safety for Energy Storage Systems and Equipment and CAN/UL 9540A, Standard for Safety for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.