

CFSA

CANADIAN FIRE SAFETY ASSOCIATION



Fire Safety is Everybody's Business

SPRING 2017

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Editor: Lesley-Anne Coleman

The CFSA News Magazine is published 4 times per year: Winter, Spring, Summer and Fall.

Advertising Rates

Membership has its benefits, and advertising is a key advantage to getting your company and product information out to other members in the industry. The CFSA has decided to make advertising in the CFSA Newsletter a definite advantage for members.

Pricing has been revised to include the following rates:

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For more information regarding advertising in the CFSA News please contact Mary Lou Murray at (416) 492-9417 or MaryLou@associationconcepts.ca

All general inquiries and advertising materials should be directed to the CFSA Office.

We welcome your comments, suggestions and articles. To submit information, please contact us at MaryLou@associationconcepts.ca attention of The Editor.

Views of the authors expressed in any articles are not necessarily the views of the Canadian Fire Safety Association. Also, the advertisements are paid advertising and are in no way recognized as sponsored by the CFSA.

CFSA Chapters

Interested in forming a new chapter? Call CFSA at (416) 492-9417





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President's Message

As spring is fast approaching so too is our Annual Education Forum. Like last year, the AEF is being held on April 6th in Vaughan at the Paramount Conference and Event Center. Our Key note speaker will be Deputy Fire Chief Jim Jessop from Toronto Fire, along with a number of other fantastic presenters which we anticipate will make for another successful and informative forum.

The CFSA has been active again this year with their informative technician sessions. The key to our long term success has been due to the continuous and tireless efforts from a few key individuals like Janet O'Carroll, Randy de Launay, Sandy Leva, Alison, Mclean MaryLou Murray and Carolyne Vigon to name a few. These informal gatherings have become known as very helpful sessions surrounding various challenging topics. One of which was recently held at ULC's head office here in Toronto. The objective of the seminar was to review CAN/ULC-S561 "Standard for the Installation and Services for Fire Signal Receiving Centres and Systems". This has been a hot topic and on the minds of many fire prevention officers locally and across the country. Our educator that day was, Al Cavers a manager at ULC and the one responsible for this standard. Once again Al did an outstanding job. We had a full house and the session was so successful that we ran over our allotted time. I am confident that this group left feeling satisfied with a more complete understanding of the standard and the true benefits of displaying a genuine ULC certificate next to the monitoring panel. If you have the chance in the future, try not to miss these tech sessions, they are certainly worth your valuable the time.

Standing true to our objectives and mission to promote the science and improved methods of fire protection and prevention through the use of seminars, safety training courses and informative newsletters we encourage your comments and suggestions for topics to be added to our lineup.

It has been an honour and pleasure to once again represent the CFSA as the association's President. I know firsthand the great benefits of being a member of the CFSA. It has allowed me the opportunity to discuss new ideas and have some difficult and challenging topics discussed and questions answered by the industry's leaders. Membership truly does have its privileges.

Kindly, David Morris CFSA - President



What is The CFSA?

The Canadian Fire Safety Association is a non-proit organization established in 1971, to promote fire safety through the use of seminars, safety training courses, information newsletters, scholarships, and regular meetings.

Our Mission Statement

"To disseminate fire and life safety information and promote a fire safe environment in Canada."

www.canadianfiresafety.com

CANADIAN FIRE SAFETY ASSOCIATION CFSA ME

The Canadian Fire Safety Association (CFSA) produces a quarterly News magazine which is distributed electronically to all members and is available for download from the CFSA website.

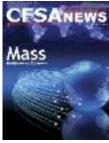
The CFSA News provides articles on industry related information, updates on codes & standards and overviews of various CFSA educational seminars provided throughout the year. In addition, Corporate Members and their selected representatives are recognized.













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ULC 561 Signal Receiving Centres

By: Lesley Anne Coleman

On Tuesday February 28, 2017, the CFSA held a Technical Session at Underwriters Laboratories of Canada to review the CAN/ULC-S561 Standard for Installation and Services for Fire Signal Receiving Centres and Systems standard.

The speaker, Alan N. Cavers is the Engineering Manager for the Fire & Security Systems Group at Under-



writers Laboratories of Canada and oversees the Global Operations. He has worked at ULC for 35 years in various capacities with the past 27 years in the fire alarm and burglary protection area. Alan is a registered Canadian Fire Alarm Association (CFAA) technician.

Alan is an active member of the Standing Committee on Use and Egress for the NBCC & NFCC for the next release of the NBC and NFC for 2015 and was appointed for the next code cycle for the 2020 NBC and NFC. He is a member of the Task Groups on Fire Alarm Systems and Exit Signs, Chair for the Task Group on Fire Alarm Systems for Part 3 of the NBC and NFC, on the Board of Directors

of the Canadian Fire Alarm Association and serves on various other committees.

The Technical Session focused on the following subjects:

- · The importance of fire alarm monitoring.
- · Equipment, power supply, cables and wiring, protection service and protected premises,
- Installation of monitoring systems, and
- Inspection and testing.



The Technical Session provided valuable information and was well received by all who attended. •

Upcoming Events

Trade Shows:

ICS West

April 5-7, 2017, Las Vegas, NV - THE largest security industry trade show in the North American. At ISC West you will have the chance to network with over 29,000 security professionals through

OFMEM Training Session:

April 11, 2017 - What's trending: Maing Social Media Work for Public Fire Safety Education, Toronto, ON

NFPA 13 Hands-On Training Class

April 18-20, 2017 - Canadian Security Association (CANASA) Toronto, ON

OAFC 2017 Trade Show

May 7-8, 2017 - Toronto, ON

Emergency Preparedness Week May 7-13, 2017

OMFPOA Training & Education Symposium

May 28-June 1, 2017 - Windsor, ON

NFPA Conference & Expo®

June 4-7, 2017 - NFPA, Boston, MA - The is the premier event for fire, life and electrical safety. Bringing together thousands of professionals from around the globe, this can't miss showcase combines an unrivaled educational conference with a comprehensive expo of the latest products and services.

2017 FFAO Convention

July 30 - August 7, 2017 - Sturgeon Falls, ON

Canadian National Advanced Fire, Arson and Explosion Investigation **Training Program**

August 28-31, 2017 - Markham, ON

Fire-Rescue Canada 2017 September 17-20, 2017

Security Canada Central 2017

October 18-19, 2017 - Canadian Security Association (CANASA) Toronto, ON

April 11, 2017 - Seneca College, Toronto, ON

Construct Canada

Nov. 29 - Dec 1, 2017 - is a 3 day event being held from 29th November to 1st December 2017 at the Metro Toronto Convention Centre in Toronto, Canada.

Technical Sessions:

June Tech Session

Tuesday, June 20th - CAN/ULC-S1001-11 Integrated Systems Testing of Fire Protection and Life Safety Systems

More information regarding events and registration can be found by visiting:

http://canadianfiresafety.com

CAN/ULC-S561

To comply, or not to comply....actually it's not even a question!

By Frank Donati, Al Cavers and Brian McBain

CAN/ULC-S561. Installation and Services for Fire Signal Receiving Centres and Systems is without a doubt one of the most misunderstood standards in the lexicon of the ULC S500 Series of Fire and Life Safety Standards. Simply stated, CAN/ULC-S561 promotes reliable fire alarm monitoring. This standard has been a Code requirement in Canada for over 10 years and yet every day Authorities find non-compliant systems and ULC, along with organizations like the Canadian Fire Alarm Association (CFAA), field daily inquiries about in conformity to, listing of, requirements for and understanding of CAN/ULC-S561. This article will endeavor to provide for a better understanding of this Standard, its place and requirements, in fire and life safety systems.

Why is it important?

In Ontario, fire alarm system installations are required to meet the intent of the Ontario Building Code (OBC). The OBC requires that signals to the Fire Signal Receiving Centre are received and disposed of in a uniform manner.

The CAN/ULC-S561 Standard covers:

- Construction, operation, installation, inspection and tests applicable to fire signal receiving centres for fire protective signalling services utilizing fire signal receiving centre facilities and satellite centres and bridging centres;
- Construction and operation of a proprietary fire signal receiving centre;

and

 Installation, inspection and tests applicable to a fire signal transmitting unit and its field device inputs at the protected premises. Fire signal receiving centres come in two defined types; a Signal Receiving Centre and a Proprietary Fire Signal Receiving Centre. What's the difference? A Signal Receiving Centre is a facility that receives alarm signals and at which trained personnel and service persons are on duty at all times.

 Think normal commercial businesses like an ADT or Chubb Edwards these involve the monitoring of multiple properties and/or for multiple owners.

A Proprietary Fire Signal Receiving Centre is a facility, operated by the owner of the protected premises in which services encompassed in this Standard are monitored at all times by trained personnel.

Think Specific business or facility
with one owner, often having multiple
sites and no third party monitoring.
These are often Hospitals or Universities with large multi-building campuses with their own in-house
policing/security service that can provide 24/7 monitoring. Also some national retail chains will provide their
own monitoring of their facilities.

Codes and Standards

The OBC governs the requirements for signals to the fire department for new buildings and for existing buildings it is the Ontario Fire Code (OFC). The occupancies that are generally required to have CAN/ULCS561 compliance are:

For Single Stage Fire Alarm System

- Group A Assembly Occupancy ->300
- Group B Detention, Care and Care and Treatment Occupancies

- Group F, Division 1 High Hazard Industrial Occupancy
- Buildings regulated by the provisions of Subsection 3.2.6. (Additional requirements for high buildings)
- Buildings containing interconnected floor space required to conform to Articles 3.2.8.3 to 3.2.8.11
- A retirement home regulated under the Retirement Homes Act, 2010 that is a Group C –Residential Occupancy
- Occupancies with Fire Alarm System that includes waterflow indicating devices

For Two Stage Fire Alarm System

 All Occupancies at the initiation of an Alert Signal

The fire monitoring service for a building fire alarm system is mandated in Ontario in the OBC Division B, 3.2.4.8 (4) and in the OFC Division B, 6.3.1.2. Further Code references for fire alarm monitoring service and CAN/ULC-S561 conformity are made through three other Code referenced ULC fire alarm standards.

- CAN/ULC-S524, Standard for Installation of Fire Alarm Systems which is referenced at OBC Division B, 3.2.4.5 (1) has as its last enforceable clause:
 - 5.15.1 (CAN/ULC-S524) The interconnection wiring from the fire alarm control unit or transponder to the fire signal receiving centre shall comply with CAN/ULC-S561, Installation and Services for Fire Signal Receiving Centres and Systems.

- And CAN/ULC-S537, Verification of Fire Alarm Systems in OBC 3.2.4.5.(2) contains within it the following:
 - CAN/ULC-S537-04 Appendix C2

 (G) Documentation to include the name and number of the Fire Signal Receiving Centre
 (CAN/ULC-S561), and the And the latest edition of CAN/ULC-S537-13, has expanded this section to impart the importance on fire monitoring:
 - (CAN/ULC-S561-13) NOTE: This standard presupposes that, where provided, the interconnection from the fire alarm control unit or transponder to the fire signal receiving centre shall comply with CAN/ULC-S561, Standard for Installation and Services for Fire Signal Receiving Centres and Systems. (Refer to Items A to I in Appendix C5.13, Interconnection to Fire Signal Receiving Centre.)
- And CAN/ULC-S536, Inspection and Testing of Fire Alarm Systems in OFC Division B, 6.3.2.2.(1)

The key take away here is that the fire alarm system monitoring is an extension of the fire alarm system, hence similar installation methods, and <u>carries the same importance for installation and maintenance as the fire alarm system.</u>

Fire Monitoring System

So, what is a fire monitoring system? It is a Fire alarm system or a sprinkler riser that is connected to a fire alarm transmitter for the purposes of transmitting fire alarm conditions from the protected property to a fire signal receiving centre in order to dispatch the correct responding authorities.

All 3 parts are required to make up a compliant system. This article focuses is on Fire Signal Receiving Centres but will touch on the installation and periodic testing for them.

Signal Receiving Centre vs. Proprietary

There are two types of Fire Signal Receiving Centres (FSRC) as defined earlier in this article and CAN/ULCS561 outlines how to construct, secure, equip and operate each of these types of Centres.

Fire Signal Receiving Centre
Is a facility that receives alarm signals and at which trained persons are on duty at all times. This facility must consist of the following:

- · Facility with 2hr. Fire rating
- Signal receivers, station automation computer
- Dedicated Power Source
- Back-up systems which include Telephone back-up, generator, Uninterrupted Power Supply Units (UPS)
- Security Vestibule- Interlocked Doors where only one can be opened at a time by the alarm room operator.
- CCTV Camera System and intercom
- Early warning fire protection system
- Fire Extinguishers
- Buddy System as in back up alarm centre
- Trained staff to handle and dispatch alarms – 24hrs a day/7 days a week
- Contingency Plan for unforeseen disasters – natural or man-made

Fire Signal Receiving Centres receiving the following alarms or notification from the fire alarm system

- Fire Alarm
- Fire Trouble
- Fire Supervisory
- Protected Premise
 Transmitter
 Fire Alarm Panel
 Sprinkler Riser

 Communication Path
 Active or Passive
 Multiplex,Internet
 DACT c/w Cell

 Fire Signal Receiving
 Centre
 Receiving Units
 Sufficient Staff

- AC Fail
- Communication Failures

Proprietary Signal Receiving Centre
Is a facility that is operated by the
owner of the protected premises in
which services encompassed in this
Standard are monitored at all times by
trained personnel. The owner of the
property monitors and maintains its own
premise. Examples again include - universities, hospitals, Walmart, Target.
These facilities must consist of the following:

- 2 hour fire separation.
 - Exception 1 hour only if the building is sprinklered.
- · Single locked door
- Owner will provide Staffing 24/7
- Owner usually provides installation and maintenance on the protected premises.
- Owner usually provides a runner service.

Also the installations at the protected buildings can be proprietary fire alarm equipment or off the shelf fire alarm transmitters.



Installation of a Fire Alarm monitoring system

Although there are differences between an FRSC and a Proprietary system regarding the physical centres themselves, the installation of CAN/ULC-S561 compliant fire alarm monitoring system at the protected premises are very similar. Both require:

- Transmitter that is CAN/ULC- S559 (a Proprietary System is eligible to use CAN/ULC-S527 Compliant transmitter)
- Manufacturer's Installation Instructions.
- · Communication Channels

- Metallic raceway for interconnecting wires
- Supervision of circuits
- Installed as per CAN/ULC-S561
- · Tested prior to occupancy

When it comes to the transmission of signals, CAN/ULC-S561 lays out the methods of communication for these systems. Communications can be Active or Passive. Active means that the channel between the fire alarm system and the alarm centre is continuously monitored so that any fault or failure that could affect signal transmission and reception is identified to the fire signal receiving centre. Passive means that it is not monitored but that incorporates dual or multiple communications. These dual or more channels create a communication system where the signal is transmitted through all channels and when acknowledgement through one is received, the other(s) will stop transmitting that signal. These channels also monitor each other for any faults and is tested every 24hrs.

Regardless of Active or Passive, the maximum time to receive a fire alarm signal from a protected premise is <u>60</u> <u>seconds</u>, and this brings us to the requirements for accuracy of Signals.

All installed fire monitoring systems shall be properly programed to transmit accurate signals to the Signal Receiving Centre in order that the operators can quickly dispatch responding authorities. Therefore there can be no miscommunication of what is occurring at the system.

- Fire Alarm = Fire Alarm
- Fire Trouble = Fire Trouble
- Fire Supervisory = Fire Supervisory

and there can be no conflicting signals (i.e. Burglar alarm – there are provisions for a location to be both fire and burglar alarmed through the same transmitter but fire alarm signals ALWAYS take precedents over burglar).

It's not just the transmitted signals that are required to be accurate for compliance with CAN/ULC-S651 but also that the Contact Lists for each protected premise is up to date, that the proper

fire department phone numbers are recorded (and not just 911) and that there is no system of verification of fire alarm signals prior to notification of the fire service to respond. CAN/ULC-S651 provides for the disposition of signals as follows:

- maximum time to receive a fire alarm signal from a protected premise is <u>60 seconds</u>,
- maximum time to contact the fire department is within 30 seconds
- maximum time to contact persons designated by the owner is within 5 minutes
- maximum time for Fire Trouble and Supervisory, Communications Troubles or Signal Transmitting Unit Troubles is to contact the owner within <u>5 minutes</u>
- and that a service company/personnel is within <u>4 hours</u> of the location to effect repairs.

A note on Standalone Sprinkler Risers Standalone Sprinkler Risers that are monitored have the same time frame requirements but only transmit the following signals:

- Waterflow (alarm)
- Fire Trouble
- Fire Supervisory (pressure and gate valves)



As the communications systems of fire alarm systems are tested communication, active or passive, CAN/ULC-S561 lays out further required periodic testing which is also referenced in CAN/ULC-S536.

- Fire Alarm System Annually
- · Waterflow Every two months
- Supervisory- Gate Valves, Pressure -Every Six months



How do you make sure all these requirements are met?

Compliance with CAN/ULC-S561 is not a simple matter of just checking off a box or two but rather involves a complete audit of both the Receiving Centre and the Fire Alarm Transmitter. Authorities Having Jurisdiction (AHJ), Property Owners and Alarm Companies all require the knowledge that the fire monitoring system as a whole is in compliance. The National Codes reguired that these systems to comply to the NBC/ NFC - Signals to the Fire Department by way of Fire Alarm Monitoring System in Compliance to CAN/ULC-S561 and that they shall provide a Certificate of Compliance attesting that the fire alarm monitoring system is in compliance to the applicable Standard for submission to the AHJ. What kind of certificate to submit? There are two options,

- A document that is acceptable to the Authority Having Jurisdiction. Your local Building Official for new construction/installation and your Fire Official for existing buildings/installations. Or
- A ULC Protective Signalling System Certificate – provided through ULC listed Alarm Company. Companies that are certified to CAN/ULC-S561 can be found on our ULC Online Directory at http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FR

bin/XYV/template/LISCANADA/1FR
AME/index.html and using the following ULC Category Codes:

DAYRC- CAN/ULC-S559-04 Equipment

DAYYC- CAN/ULC-S561-04 – Shared Installation Co.

DAYIC - CAN/ULC-S561-03 – Shared and Full Service Fire Signal Receiving Centres ◆

A Final Note

CAN/ULC-S561 is a vital component in the chain of Fire Alarm standards and is mandated by our Codes, yet is possibly one of the highest non-conformity issues with fire alarm systems that require monitoring. Although the National Codes have since 2005 explicitly required CAN/ULC-S561 conformity, for the upcoming 2015 National Codes ULC has submitted an Appendix Note to further clarify the interconnection between it and CAN/ULC-S524 Installation of Fire Alarm Systems so that Code users and enforcement authorities ensure complete conformance with Code requirements. The draft Appendix note submitted (and as of this writing not yet finalized by the Codes Commission) is:

CAN/ULC-S561, "Installation and Services for Fire Signal Receiving Centres and Systems," which is referenced in Sentence 3.2.4.8.(4), and CAN/ULC-S524, "Installation of Fire Alarm Systems," which is referenced in Sentence 3.2.4.5.(1), go hand-in-hand: conformity to CAN/ULC S561 entails conformity with the fire alarm system components required in that standard. These components include fire alarm transmitter (signal transmitting unit), interconnections and communication path.

We hope you have a clearer picture and understanding of CAN/ULC-S561, its requirements and how it fits into our Codes and requirements for fire alarm systems. If any further assistance, interpretation, details or concerns are required, do not hesitate to contact either ULC Regulatory Services or Certificate Services below. The CAN/ULC-S561 Standard, along with any other ULC standards, can be purchased at the link below:

ULC Store: http://canada.ul.com/ulc-standards/aboutus/salesofulcstandard-smaterials/

ULC Regulatory Services

For additional information or questions ULC Regulatory Services is here to help. Contact Brian McBain by email at Brian.McBain@ul.com or by Telephone at

+1.613.751.3404 or Pierre McDonald by email at Pierre.McDonald@ul.com or by telephone at:

+1.780.419.3202

ULC Certificate Services

For additional information or questions to ULC Certificate Services you can reach them at +1.866.937.3852
Cheryl Cerqua ext 61224
Alan Cavers ext. 61207
Or via email at TRT.Certificate@ul.com

Technical Guidelines and Reports

Ministry of Community Safety and Correctional Services

The latest Technical Guidelines and Reports offer information and answers to questions as well as provides useful tips for the following:

- · enhance the effectiveness of fire drills,
- assisting facility admistrators and fire officials in establishing appropriate staffing levels to implement fire safety plans in care occupancies, treatment occupancies and retirement homes,
- providing consistent methodology and criteria for the evaluation of existing alarm signal levels and the necessary upgrades,
- providing processes and checklists to owners and operators of industrial occupancies that can them put together a comprehensive Fire Safety Plan for their workplace.

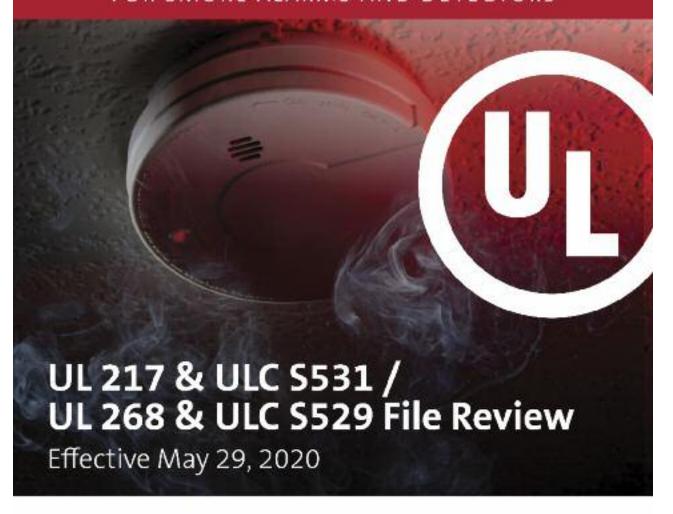
https://www.mcscs.jus.gov.on.ca/english/FireMarshal/Legislation/TechnicalGuidelinesandReports/OFM guidelines.html

Technical Guidelines and Reports

Technical Guidelines			
Guideline Number	Title	PDF	Date Released/Revised
TG-04-2016	Fire Drills	PDF	October 2016
TG-03-2016	Staffing Levels in Care Occupancies, Care and Treatment Occupancies and Retirement Homes	PDF	October 2016
TG-02-2016	Fire Alarm Audibility in Existing Residential Occupancies	PDF	August, 2016
TG-01-2016	Fire Safety Planning for Industrial Occupancies	PDF	August, 2016

For more information click on a Title or PDF or visit: http://www.ofm.gov.on.ca ◆

BE PREPARED TO MEET NEW REQUIREMENTS FOR SMOKE ALARMS AND DETECTORS



UL research shows that residential fires burn hotter and faster than they did 30 years ago. This is due to an increase of synthetic furniture, drapery and building materials and open floor plans in modern residences.

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With legislation currently in the process to regulate the marijuana industry, how will Ontario deal with the safety aspect in legalization?

Marijuana Grow and Extraction Facilities

Published by: NFPA, Public Education

The topic of fire safety at marijuana processing and extraction facilities was introduced to the full NFPA 1 Technical Committee during its First Draft meeting in October 2015. As a result of the committee's interest, a task group was formed to develop the language further and propose a new chapter for NFPA 1, Fire Code, to the committee at the Second Draft meeting. The marijuana chapter passed ballot easily, but it will still need to get through the NITMAM process. See the Second Draft of NFPA 1.

Two education sessions to be presented at NFPA's Conference & Expo

NFPA's Conference & Expo will be held in Boston, June 4-7, and there will be two education sessions dedicated to fire safety in marijuana grow & extraction facilities. Check back soon to NFPA's C&E site to get more details about the following sessions:

• Marijuana Grow Facilities — an AHJ Perspective This presentation will focus on an AHJ perspective with respect to marijuana grow facilities and the common issues faced during the plan review and approval process. Case studies of functioning marijuana grow facilities will be reviewed and discussed with topics including NFPA 72 notification appliance coverage, NFPA 30 flammable gas extraction processes, and NFPA 101 egress concerns.

Marijuana Facilities — Evaluating the Fire and Explosion Hazards

With the increase in legalization of marijuana use there has been a follow-on increase in explosions and ensuing fires. The ability to recognize the inherent fire hazards in this cutting edge of America's societal evolution will enhance the fire protection community's efforts to contain and control these hazards because not all aspects of the legal marijuana community are hazardous.

Hazards of the Trade

As published in the NFPA Journal and written by Jesse Roman



http://www.nfpa.org/news-and-research/publications/nfpa-journal/2016/september-october-2016/features/growing-pains/hazards-of-the-trade

As with any industrial process, marijuana production comes with an assortment of hazards, some more exotic than others. In general, the hazards break down into those associated with growing, and those associated with the THC extraction process. Growing hazards include:

Egress – With space at a premium, most grows are very crowded, with plants being moved often according to their grow cycles. Keeping egress paths and exit doors clear can be a problem. Also, since almost all grows are located in retrofitted buildings, "a lot of them go on and on—it's mazelike, you're going through doors and doors and more doors," said Brian Lukus, a fire protection engineer who has led the Denver Fire Department's marijuana efforts. "It meets egress requirements, but during a fire it would be easy for a firefighter to get lost."

Lights – Grows have a lot of hot, dangling lights, many of which remain on 24 hours per day. If lamps are located too close to combustible materials, fires can occur. Some grows use twine to hang lights, leading to worries they could crash

down on responders in a fire. Denver has started requiring that lights be hung on chains.

Plastic dividers/combustible interior finishes - Grows need many separate rooms to segregate plants by growing and light cycles. Some growers erect tents inside of rooms, or cordon off spaces with tarps or other flammable materials, creating fire hazards and egress issues.

High Electrical Loads - Hundreds of high-powered lights, air conditioning, fans, and other systems mean grow houses use a significant amount of electrical energy. If grows are not compliant with the NEC®, overloaded circuits and wiring can spark fires.

Fumigation - Molds, mildews, and fungus can destroy a crop and result in millions of dollars in losses. Some grows have adopted fumigation measures using sulfur dioxide, which can be toxic to employees and first responders.

Illegal locks/barriers - The valuable commodity inside has prompted some grow owners to tighten security by placing bars on doors and windows, using non-compliant locks, and even guard dogs, all of which can hinder egress and ingress in a fire or other emergency.

Carbon dioxide (CO2) enrichment - Many growers claim CO2-enriched environments can increase pot yields by 20 percent. While ideal growing CO2 levels remain well below what can asphyxiate a person, failures and leaks have occurred. In most jurisdictions, rooms are required to be monitored and alarmed with automatic shut-off valves in case of a leak.

The extraction process uses a solvent like butane or propane to collect and concentrate THC, the primary psychoactive ingredient in marijuana. Extraction hazards include:

Butane/Propane - The most popular extraction process involves use of these flammable and potentially explosive substances as the solvent to separate THC from the plant. Although extractors must have a closed-loop system design, off-gassing does occur when the collection cylinder is opened and hash oil is scooped out.

CO2 extraction - This type of THC extraction doesn't require flammable substances, but the machines operate at pressures as high as 10,000 pounds per square inch. If not installed or designed correctly, extractors can explode, causing destruction and death.

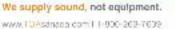
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TOA products can be used 24/7 as a background music (BGM), paging system, and in an emergency provide messaging that interrupts other announcements, and is intelligible. TCA Canada Corporation's products are contified to UL2972, CAN/ULC 5576-14 (Mass Notification), and UL 1480 UUMW/ULAY, UL2043, CAN/UCC-5541-07, CAN/CSA C222.2 No. 205 (UEAY7), and backed by a 5 year warranty. When you need to rely on an Emergency Voice Evacuation, Distributed Paging System, or provide everyday BGM, TOA has your solution! Safe and sound!







Marijuana Cont'd

Regulation/oversight – In the absence of a stand-alone code, some enforcers and regulators are unclear on, or differ in their opinions on, the code requirements for extraction facilities. Some jurisdictions have yet to adopt any local codes regarding these facilities.

Extraction Equipment – There are no listed or performance-based standards for extraction equipment. Engineers can disagree on safety requirements and will sometimes use

different codes as a basis for equipment review. Insufficient training—Extraction operators are not required to be trained, nor are there any accredited certification programs for marijuana extraction operation. Consistency is lacking.

For more information regarding a host of lessons learned, including safety practices at commercial grow and extraction facilities, inspection protocols, and more from the rapid expansion of the marijuana industry in Colorado, USA, Click here http://www.nfpa.org/news-and-research/publications/nfpa-journal/2016/september-october-2016/features/growing-pains

Industry News

Sprinkler and Fire Protection Installer Trade

Fire Marshal's Communiqué - February 2, 2017

The purpose of this communiqué is to provide information about the latest developments relating to the sprinkler and fire protection installer trade.

On March 19, 2013, sprinkler and fire protection installers requested through their trade board a review of their "voluntary trade" classification. A voluntary trade, as defined by the Ontario College of Trades (College), is a trade in which certification and College membership are not legally required to practice the trade.

Following a public consultation led by an independent review panel, the College received on April 23, 2014, the panel's decision that the trade should be reclassified as a compulsory trade. A compulsory trade, as defined by the College, is a trade in which registration as an apprentice or journeyperson candidate, or certification as a journeyperson, is mandatory.

Ontario Regulation 20/15, Compulsory and Voluntary Trades, a regulation made under the Ontario College of Trades and Apprenticeship Act, 2009, was filed on February 2, 2015. Under this regulation, the sprinkler and fire protection installer trade becomes a compulsory trade on February 2, 2017. The reclassification of this trade will result in a number of changes, including the following:

- In order to continue to work legally in Ontario, persons in the sprinkler and fire protection installer trade will be required to be members in good standing of the College in one of the following membership classes:
 - Apprentices Class (statement of membership);
 - Journeyperson Candidates Class (statement of membership); or

- Journeypersons Class (Certificate of Qualification/Provisional Certificate of Qualification issued by the College).
- Only persons in the membership classes listed above will be able to do the following:
 - practise the sprinkler and fire protection installer trade, i.e. do the work;
 - be employed or otherwise engaged to do the work of sprinkler and fire protection installers; and
 - use the trade title "Sprinkler and Fire Protection Installer" (or any abbreviation of that title) to describe themselves or their work.
- Only members of the Journeypersons Class who hold a valid Certificate of Qualification issued by the College can use the title "Journeyperson".

To determine whether a person in the sprinkler and fire protection installer trade is qualified by the College to be working in the trade, one can consult the College's Public Register.

The College is currently hosting discussions with the Sprinkler and Fire Protection Installer Trade Board, the Canadian Fire Alarm Association and the Office of the Fire Marshal and Emergency Management (OFMEM), to clarify a number of points related to the application of the new requirements. The OFMEM will provide to the fire service updates in regard to these discussions in the near future.

Enquiries regarding the matter outlined above should be directed to the College. Contact information can be found on on the College's Website. •

ULC STANDARDS BULLETIN 2017-06

Standard for Photoluminescent and Self-Luminous Exit Signs and Path Marking Systems

ULC Standard is pleased to announce the publication of the Second Edition CAN/ULC-S572:2017, Standard for Photoluminescent and Self-Luminous Exit Signs and Path Marking Systems. This National Standard of Canada was developed by the ULC Working Group on Photoluminescent and Self-Luminous Exit Signs and Path Marking Systems, and was approved by the ULC Committee on Fire Alarm and Life Safety Equipment and Systems. It is published under the date of February 2017.

CAN/ULC-S572 covers requirements for photoluminescent and self-luminous exit signs and path marking systems intended for installation as required by applicable codes. Such equipment is intended to provide exit and directional information to assist occupants to evacuate a facility and/or building. This Standard does not cover requirements for unit equipment or electrically-powered exit signs. CAN/ULC-S572 is currently referenced in the National Building Code of Canada.

Changes to this edition of CAN/ULC-S572 include but are not limited to:

- The colour scheme of the exit sign is simplified to green contrasted with a white or lightly tinted background, noting ISO 3864-1 (Graphical symbols – Safety colours and safety signs – Part 4 – Colorimetric and photometric properties of safety sign materials) as a guide document;
- Visibility Tests are revised to be less prescriptive and more performance-based, and the products marked as tested in accordance with manufacturer's ratings;
- Required marking on the types of, and continuous illumination are deleted;
- Sample figures of graphical symbols with or without arrows are added for guidance; and
- An Informative Appendix is added, to provide guidance for the installation and locations of photoluminescent material markings.

This standard can be purchased for CAD\$ 250 (hardcopy) or CAD\$ 200 (PDF format) through our website at www.ulc.ca and by selecting the link to ULC Standards. Once on the ULC Standards homepage, select Sales of ULC Standards Materials for further details.

Should you require additional information, please contact Tess Espejo at (416) 288.2212 or by email at address: Theresa.Espejo@ul.com

Mahendra (Mike) Prasad Operations Manager ULC Standards Mahendra.prasad@ul.com

Theresa (Tess) Espejo Project Manager ULC Standards Theresa.Espejo@ul.com

Alan Cavers
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Why Corporate Membership?

Corporate Membership is cost effective because it allows any number of individuals from your organization to participate in the many functions provided by CFSA throughout the year. Any number of persons can attend our monthly dinner meetings/ technical sessions or our annual conference at the preferred member's rate. Your advertisement in the CFSA journal is circulated to CFSA's membership of over 250 professionals in the Fire Safety Industry.

Corporate

Includes 3 individual memberships; Company recognition in each of the four issues of the CFSA journal.

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Includes 6 individual memberships; Company recognition and a 1/2 page advertisement in each of the four issues of the CFSA journal.

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Includes four issues of the CFSA journal and discounted rates at Association functions.

Student Member:

Includes four issues of the CFSA journal and discounted rates at Association functions.

Associate Member:

For individuals and companies located beyond a radius of 150 km from the Greater Toronto Area. Includes four issues of the CFSA journal and discounted rates at Association functions.

Provincial/Territorial Chapter:

For groups of members within a province or territory. Includes 4 individual memberships; member rate for all staff at dinner meetings, technical seminars and Annual Education Forum; Recognition in each of the four issues of the CFSA journal. Contributes articles in CFSA journal.

canadianfiresafety.com

CFSA Application for Membership

Company/Affiliation Title Address City. Prov. Postal Code **Business Phone** Business Fax e-mall Web site Please indicate how you first heard about CFSA Please indicate in the appropriate box the category that best describes your vocation: Architect Engineer Building Official Fire Official

		Rate	+13%HST	Total Rate
Corporate Plus (C3)	\$	790.00	\$ 102.70	\$892.70
 Corporate 	\$	406.00	\$52.78	\$458.78
O Individual	\$	82.00	\$10.66	\$92.66
○ Student	\$	25.00	\$3.25	\$28.25
○ Retired	\$	25.00	\$3.25	\$28.25
 Associate 	\$	56.00	\$7.28	\$63.28
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Canadian Fire Safety Association

2800 - 14th Avenue Suite 210, Markham, ON L3R 0E4 Telephone (416) 492-9417 Fax (416) 491-1670

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City of Markham, Building Standards Dept

Tony Boyko Chris Bird Tim Moore Markham, ON (905) 475-4719

City of Toronto, City Hall, East Tower

John Humphries Toronto, ON (416) 392-2690

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Durham College, Fire and Life Safety Technician Program

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Oakville Fire Department

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Office of The Fire Marshal & **Emergency Management**

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Scholarship Opportunities

Opportunities exist to support College or University students in their academic endeavours, in Fire Protection programs.

Scholarships funded through membership contributions:

- CFSA Founders Award for Leadership & Excellence;
- CFSA Fire Safety Award:
 2014 honouring the memory of Rich Morris
 Founding member, Director for 35 years, President 1975/78

Corporately-funded Scholarships:

- · CFSA LRI Engineering Inc. Award
- CFSA Randal Brown & Associates Award
- CFSA Nadine International Inc.
- CFSA Underwriters' Laboratories of Canada Award (2)
- · CFSA Underwriters' Laboratories of Canada Award
- CFSA City of Markham, Buildings Standards Department Award
- · CFSA Siemens Canada Ltd. Award
- CFSA Aon Fire Protection Engineering Award



Individual or Corporate members may support the CFSA Scholarship program, either by contributing to the CFSA Scholarship fund, or by initiating a Corporate Scholarship.

Corporately-funded Scholarships are available at \$500 and \$1000 levels, and may be for a fixed term or without a specified end. For inquiries, please contact Membership Chair at cfsa@associationconcepts.ca.

For Individual Donations

Please fill out the form below and mail in to:

Canadian Fire Safety Association 2800 - 14th Avenue Suite 210 Markham, ON L3R 0E4

Telephone: (416) 492-9417 Fax: (416) 491-1670

E-mail: cfsa@associationconcepts.ca

www.canadianfiresafety.com

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2017 SCHOLARSHIP ENTRY FORM

\$7,500 in Scholarships

THE SCHOLARSHIPS:

★ \$1,000.00 - CFSA Founders Award for Leadership & Excellence

Presented to the TOP GRADUATE of a 3 year full time Fire Protection Technology or University degree, who has demonstrated leadership qualities including a balance of academic excellence, outstanding leadership, motivation and community service. The applicant should excel in displaying outstanding leadership, display motivation and contribute to the fire safety community, achieve academic and technical skills to impact the fire safety community and outstanding concern for others/volunteerism.

★ \$1,000.00 CFSA Fire Safety Award 2015 In Memory of Rich Morris

Presented to the TOP STUDENT having completed year 2 of a 3 year full-time Fire Protection Technology Course with outstanding leadership, motivational and technical skills and overall academic proficiency ≥ 3.3 GPA.

★ \$1,000.00 CFSA LRI Engineering Inc. Award

Presented to a TOP YEAR 2 STUDENT of a 3 year full time Fire Protection Technology Course with exceptional overall skills in Fire Alarm System Technology and an academic proficiency > 3.3 GPA.

★ \$1,000.00 CFSA JENSEN HUGHES Consulting Canada Award

Presented to a TOP YEAR 2 STUDENT of a 3 year fulltime Fire Protection Technology Course with exceptional overall skills in Codes/Standards Technology and an academic proficiency \approx 3.3 GPA.

★ \$1,000.00 CFSA Nadine International Inc.

Presented to a TOP YEAR 2 STUDENT of a 3 year fulltime Fire Protection Technology Course with exceptional overall skills in Fire Suppression Technology and an academic proficiency >= 3.3 GPA.

★ \$500.00 CFSA Underwriters' Laboratories of Canada Award

Presented to a TOP YEAR 2 STUDENT of a 3 year full time Fire Protection Technology Course, with exceptional academic skills in Codes and Standards and an overall proficiency ≥ 3.3 GPA.

★ \$500.00 CFSA Underwriters' Laboratories of Canada Award

Presented to a TOP YEAR 1 STUDENT of a 3 year full-time Fire Protection Technology Course, with exceptional academic skills in all subjects and an overall proficiency > 3.3 GPA.

★ \$500.00 CFSA City of Markham, Buildings Standards Department Award

Presented to a TOP YEAR 1 STUDENT in Fire Protection Engineering or related Fire and Life Safety Diploma Program and an academic proficiency ≥ 3.3 GPA.

★ \$1.000.00 CFSA Siemens Canada Ltd. Award

Presented to a TOP YEAR 1 or 2 STUDENT in a Technician or Technology Program with a primary focus on Fire Alarm – Code and Design and an academic proficiency × 3.3 GPA.

QUALIFICATIONS AND RULES:

- The recipients must be enrolled in a Fire Protection Technology Course at a Canadian college or university.
- All CFSA Scholarship Award entries (c/w academic grades) must be submitted by March 20th to: Attention: 2017 Scholarship Form, Canadian Fire Safety Association, 2800 14th Avenue Suite 210, Markham, ON L3R 0E4
- 31 Submit a written response of up to 300 words in paragraph form, providing a brief description of:
 - a. Your interest in fire safety and knowledge of CFSA and the donor organization,
 - b. The course you are enrolled in and how you would like to utilize your education (ie. fire service, consulting, sales etc.)
 - Any experience you have in fire safety either work related, attendance at conferences, CFSA functions etc. and a statement on your extracurricular involvement (i.e. student clubs, mentoring, tutoring, athletics & community volunteering)
 - d. Letter of Reference from faculty about individual.
- 4) All entries become the property of the CFSA. The awards ceremony will take place on April 6, 2017 at the CFSA Annual Education Forum. All award recipients are encouraged to attend the full day CFSA Education Forum, as a guest of the CFSA and its distinguished Scholarship Sponsors.



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Who is this Forum For?

This forum should appeal to property owners, managers, designers and consultants, and those in the building and fire safety industry.

When?

Thursday, April 6, 2017 • 7:45 am • 4:30 pm

Where?

Paramount Conference & Event Venue 222 Rowntree Dairy Road, Woodbridge NW corner of Hwy 407 and Hwy 400

Enquiries

Please contact Mary Lou Murray marylou@associationconcepts.ca 416-492-9417

- · Sponsorship Opportunities available
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Grand Draw at Closing Ceremonies!!!



Early-Bird Draw

Register by March 3, 2017 and be eligible for an early bird draw.

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This symposium qualifies for professional development towards NFPA/CFPS Recertification. This Symposium also counts for Self-Directed Learning.

Preliminary Program at a Glance

Keynote Speaker: Jim Jessop, Director/Deputy Fire Chief, Toronto Fire Services

7:30 am - 8:00 am	Registration and Breakfast	12:00 pm - 1:00 pm	LUNCHEON
7:45 am - 8:00 am	Annual General Meeting Speaker: David Morris, CFSA President	151 W 5149D	Scholarship Awards Visit Exhibit Booths
8:00 am - 8:15 am	Welcome Address Jason Schmidt-Shoukri Director of Building Standard, CBO Yaughan	1:00 pm - 1:45 pm	New Sprinkler Technology Speaker: Joshua Lourenco, Viking Supply Net Martin Workman - V.P. of Product Management, Viking Supply Net
8:15 am - 9:00 am	Building Code Update Speaker: James Douglas Ministry of Municipal Affairs and Housing	1:45 pm - 2:30 pm	A Case Study 9.3 Retrofit Speaker: Scott Gilbert Fire Prevention Officer
9:00 am - 9:45 am	Combustible Dust Processes		Caledon Fire & Emergency Services
	Speaker: Melinda Amador, P.Eng Jensen Hughes	2:30 pm - 2:45 pm	Refreshment Break
9:45 am - 10:00 am	Refreshment Break & Door Prizes Visit Exhibit Booths	2:45 pm - 3:30 pm	Fire Code Update Speaker: Gord Yoshida Office of the Fire Marshal &
10:00 am · 11:20 am	Keynote Address		Emergency Management
	Speaker: Jim Jessop, Director/Deputy Fire Chief Toronto Fire Services	3:30 pm - 4:15 pm	Corridor Fire Separation and Occupancies in Corridors
11:20 am ·12:00 pm	LED Strobes - The New Generation in Signaling Speaker: Laurie E. Eisner, P.Eng., MASo		Speaker: Susan Clarke, P.Eng Morrison Hershfield
	VP Product Development Mircom Group of Companies	4:15 pm - 4:30 pm	Closing Comments & Grand Prize Draw