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# CFSA NEWS

**CANADIAN FIRE SAFETY ASSOCIATION**

**Fire Safety is Everybody's Business**

**FALL 2012**

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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:

	Member Rate	Non-Member Rate
Back Cover	\$250	\$750
Full Page	\$200	\$600
1/2 Page	\$100	\$300
1/4 Page	\$50	\$150
Business Cards	\$25	\$75

Prices listed are for each issue and do not include HST. Corporate members receive a 10% discount.

**For more information** regarding advertising in the CFSA News please contact Mary Lou Murray at (416) 492-9417 or [maryloum@taylorenterprises.com](mailto:maryloum@taylorenterprises.com).

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 [maryloum@taylorenterprises.com](mailto:maryloum@taylorenterprises.com) 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 in no way recognized as sponsored by the CFSA.

### CFSA Chapters

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

## President's Message



In this edition of the CFSA News we attempt to scratch the surface of the fire and life safety industry and provide a “debriefing” on some of the recent key topics / issues being discussed. Towards this end, you will find in this edition of the CFSA News informative articles related to such hot industry topics as vulnerable occupancies, fire testing methods, and mass notification.

Though many of these topics are still developing, the initial implications can already be felt in the industry. This is an interesting time for the fire and life safety industry, and the CFSA intends to keep our membership updated on information regarding these and other topics by way of our seminars / workshops, website and articles in future CFSA News editions.

If you are reading this edition of the CFSA News and are not yet a member of CFSA, I urge you to consider one of our memberships, of which we offer several classes to suit individuals and companies alike. For more information, contact the CFSA office, our membership chair (Anthony Van Odyk), or any one of the Board of Directors.

Don't forget to keep Wednesday, April 3, 2013, open for what promises to be a very interesting and informative Education Forum.

The CFSA Board of Directors is currently busy preparing for future technical sessions and workshops as well as planning the Annual Education Forum. A quick reminder that, for your convenience, registration for CFSA events can be completed on our website at [www.canadianfiresafety.com](http://www.canadianfiresafety.com) (in addition to fax or mail registrations).

The Board of Directors is also in the process of reviewing the CFSA By-Laws to determine whether any updates are required. Proposed changes, if any, will be brought before the members at the Annual General Meeting in the spring.

I would like to wish each and every one of you a safe and happy holiday season. I look forward to seeing you in the New Year.

Regards,

A handwritten signature in black ink, appearing to read 'Matteo Gilfillan'. The signature is stylized and cursive.

Matteo Gilfillan, B.A.S., C.E.T., CFPS  
CFSA President

## New Members

### Corporate Member

Remtec International

### Individual Member

Scott Cowden

### Associate

Jim Fulton  
Gaetan Serre

## Upcoming Events

### CFSA Events

April 3, 2013  
Annual Education Forum

## Correction



On Page 11 of the Summer Editions:  
The Nadine International Award was presented at  
the Annual Education Forum by *Ajwad Gebara* of  
Nadine International and The LRI Award was pre-  
sented by *Fred Leber*.

## Board of Directors

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# Standard For Integrated Systems Testing Of Fire Protection And Life Safety Systems

Underwriters Laboratories



First Edition CAN/ULC-S1001-11

ULC Standards is pleased to announce the publication of CAN/ULC-S1001-11, Integrated Systems Testing of Fire Protection and Life Safety Systems. This First Edition National Standard of Canada was processed and approved by the ULC Committee on Fire Alarm and Life Safety Equipment and Systems, and published with the date of September 2011.

This Standard has been developed to meet the needs of the National Building Code of Canada (NBCC) and the National Fire Code of Canada (NFCC) for integrated systems testing of fire protection and life safety systems and the fire protection and life safety functions of other systems. It represents the process of integrated systems testing and is the first ULC standard related to Commissioning.

It is the ultimate intention of the ULC Committee to work with the National Building Code of Canada (NBCC) and National Fire Code of Canada (NFCC) Standing Committees to have CAN/ULC-S1001 introduced into the NBCC and the NFCC to address the integrated systems testing needs of a building's fire protection and life safety systems as a whole.

This Standard prescribes the following: methodology for verifying and documenting that all interconnections between systems provided for fire protection and life safety functions are installed and operating in conformance with their design criteria; integrated systems testing qualifications; integrated systems testing process; integrated systems testing requirements; integrated systems testing documentation; periodic integrated systems testing; retro-integrated systems testing; and integrated systems testing for modifications.

The intended users of this standard may include building owners, property managers, those who perform functions associated integrated systems testing and commissioning, general contractors, regulators, etc.

Should you require any additional information, please contact Mahendra Prasad at 416 757-5250 x 61242 or email at: Mahendra.Prasad@ul.com

This standard is available for purchase at \$ 220.00 for soft copy or \$ 264.00 for hard copy, from the ULC website ([www.ulc.ca](http://www.ulc.ca)).

Yours truly,  
ULC STANDARDS

G. Rae Dulmage  
Director, Standards Department, Government Relations Office and Regulatory  
440 Laurier Avenue West. Suite 200  
Ottawa, Ontario K1R 7X6

## ULC STANDARDS UPDATE: ULC COMMITTEE ON FIRE ALARM AND LIFE SAFETY EQUIPMENT AND SYSTEMS



The ULC Standards Committee on Fire Alarm and Life Safety Equipment and Systems has been very busy this year, with 24 (out of 28) standards in its work program being in active status. Here are some of the highlights of this committee's activities:

1. CAN/ULC-S536-12, Inspection and Testing of Fire Alarm Systems
2. CAN/ULC-S537-12, Verification of Fire Alarm Systems
3. CAN/ULC-S540-12, Residential Fire and Life Safety Warning Systems: Installation, Inspection, Testing and Maintenance
4. CAN/ULC-S559-12, Equipment for Fire Signal Receiving Centres
5. CAN/ULC-S561-12, Installation and Services for Fire Signal Receiving Centres

**Standards for publication:** These standards are scheduled to be published before the end of the year. If you are interested in purchasing a copy, either in electronic format or hard copy, please go to the ULC online store at: <http://www.ul.com/canada/eng/pages/ulcstandards/salesofulcstandardsmaterials/>

**Standards for Public Review:** Interested parties are invited to review these draft standards, which will be available during the public comment period allowing inputs and proposals for revisions. Please visit the ULC Standards website at: <http://www.ul.com/canada/eng/pages/ulcstandards/standardsactivities/publicreview/>

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Please visit the ULC Standards website at: <http://www.ul.com/canada/eng/pages/ulcstandards/standardsactivities/publicreview/>

1. CAN/ULC-S528, Manual Stations for Fire Alarm Systems
2. CAN/ULC-S533, Egress Door Securing and Releasing Devices
3. CAN/ULC-S548, Water Type Extinguishing Systems

Several Working Groups under this ULC Committee are preparing new standards or new editions of existing ones, including the proposed 6th edition of CAN/ULC-S524, Installation of Fire Alarm Systems, and the proposed 1st edition of CAN/ULC-S576, Mass Notification Systems.

This ULC Committee is harmonized with Canadian Advisory Committee (CAC) to ISO Technical Committee No. 21, Subcommittee 3, Fire Alarm Detection and Alarm Systems.

The scope of the Committee is to develop standards, guidelines, methods of tests, installation, building/facility commissioning, and other pertinent requirements for life safety related to fire protection, detection and signalling equipment and systems, and to interact with other ULC Committees as applicable.

ULC Standards publishes and maintains standards that play an important part in improving public safety. Volunteer committee members are an invaluable part of the Standards Development Process and critical to ULC Standards. In return for their service, volunteers will gain important experience that can aid in their own professional development. They will also meet and share knowledge with others in their field or industry.

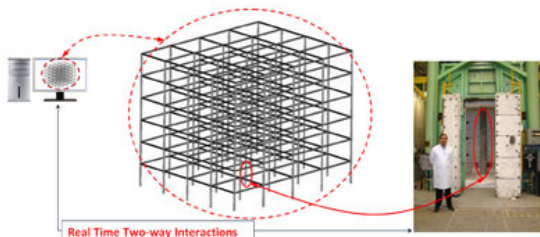
Should anyone be interested in participating in standards development, please feel free to contact Tess Espejo at: [Theresa.Espejo@ul.com](mailto:Theresa.Espejo@ul.com).

## Hybrid Fire Testing of the Whole Structure

Article obtained from the National Research Council Canada, Construction Innovation website: <http://www.nrc-cnrc.gc.ca/eng/ci/v16n4/3.html>

Traditional fire resistance testing evaluates the performance of individual building elements with no consideration given to the interaction with other parts of the building. On rare occasions, fire performance is assessed by constructing and testing an entire building - a very expensive approach.

The NRC Institute for Research in Construction has developed and applied a hybrid testing technique to the fire performance assessment of buildings. It couples the analytical assessment of sub-assemblies with a physical test of part of the structure to simulate the response of the complete system.



Dr. Hossein Mostafaei stands in front of a column furnace. The furnace represents a fire compartment on the first floor of a

six-storey building. The structural response to fire of the rest of the building is analyzed simultaneously on the computer

Hybrid fire testing (HFT) was recently demonstrated for assessing the structural performance of a 6-storey reinforced concrete building. The scenario considered was a fire assumed to occur in a compartment on the first floor in the centre of the building.

The column in the fire compartment was tested using the NRC's column furnace facility while the structural response of the complete building was analyzed simultaneously using SAFIR, a specialized computer software for calculating temperature distributions in structures subjected to the fire.

During the column test in the furnace, the simulation software continually increases or decreases the column load based on the variation of the column deflections. The variation in the column deflections is continually used by the software to simulate the effect on the rest of the building.

HFT simulates the fire performance of the whole building at a lower cost than full-scale testing, and with more reliable results than prescriptive testing. In addition, various building structural configurations and properties can be evaluated at a lower cost by constructing only the structural elements that are physically tested in the furnace.

HFT offers the possibility of investigating various fire scenarios, using selected facilities for physical testing, and running the simulation analysis remotely at different locations anywhere in the world. Future studies will investigate applying the same hybrid methodology to other structural elements such as beams, floors and walls and to other types of structures such as bridges.

For more information or to become a project partner, contact Hossein Mostafaei at [hossein.mostafaei@nrc-cnrc.gc.ca](mailto:hossein.mostafaei@nrc-cnrc.gc.ca) or 613-993-9729.

## NFPA Update On Antifreeze

Article courtesy of NFPA, <http://www.nfpa.org/itemDetail.asp?categoryID=2064&itemID=48038>

NFPA issues updated Safety Alert regarding antifreeze in sprinkler systems

**NOTE:** This Safety Alert replaces previous antifreeze alerts dated July 2010 and August 2010.

Following reports of a fire incident involving a sprinkler system that contained a high concentration antifreeze solution, research and standards development activities were begun to address concerns raised by the combustibility of antifreeze solutions in residential sprinkler systems. As information became available, NFPA published two successive Safety Alerts providing guidance from NFPA in its role as a safety advocate and announcing Tentative Interim Amendments (TIAs) to NFPA sprinkler standards that were issued by the NFPA Standards Council. The TIAs and the additional NFPA guidance offered in those Safety Alerts were interim actions while the responsible standards development Technical Committees reviewed the results of the research and reached consensus on further amendments to the NFPA sprinkler standards.

The sprinkler committees have now completed the review and consideration of the issues related to the use of antifreeze in sprinkler systems and, based on the available information, have reached consensus on March 1, 2011. The four TIAs achieve a more comprehensive approach to the treatment of antifreeze in NFPA sprinkler standards, and provide new requirements for the use of antifreeze in both new and existing residential occupancies and in non-residential occupancies as well.

New Requirements for Sprinkler Systems Containing Antifreeze - A Summary

The four new TIAs apply, respectively, to:

- NFPA 13, Standard for the Installation of Sprinkler Systems (2010 edition)
- NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height (2010 edition)
- NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes (2010 edition)
- NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (2011 edition)

The previous TIAs that were issued by the Standards Council in August 2010 are no longer in effect.

What follows is a general summary of the main new antifreeze requirements that the TIAs have added to the NFPA sprinkler standards. This summary does not describe all the details or all of the provisions;

the applicable sprinkler standard, as amended by the new TIAs, should be directly consulted for a complete and accurate understanding of the requirements related to the use of antifreeze.

### New Sprinkler Systems Containing Antifreeze - NFPA 13, NFPA 13D and NFPA 13R Sprinkler Systems

- New systems are required to use only factory premixed antifreeze solutions. The maximum allowable concentration of glycerin for a new system is 48% by volume.
- The maximum allowable concentration of propylene glycol for a new system is 38% by volume.
- All factory premixed antifreeze solutions used in NFPA 13 and 13R systems must be provided with a certificate indicating the type of antifreeze, the concentration and the freezing point. Factory premixed antifreeze solutions of propylene glycol in excess of 40% by volume are permitted in ESFR (Early Suppression Fast Response) systems where the sprinklers are listed for such use in a specific application.
- Factory premixed antifreeze solutions other than propylene glycol and glycerin are permitted only where they are specifically listed for use in sprinkler systems.
- New systems, once installed, must be annually tested in the manner required for existing systems, summarized below.

### Existing NFPA 13D Sprinkler Systems

NFPA13D systems must be tested annually by a qualified individual. NFPA 13D provides two alternative test procedures. In the first alternative, the system is drained and two solution samples are taken, one near the beginning and one near the end of the draining process. In the second alternative, the system is not drained and two solution samples are taken, one at the highest practical elevation and one at the lowest practical elevation of the system.

The two samples collected using either alternative procedure are then tested to verify that the specific gravity of both samples is similar. If the specific gravity of both samples is similar and if the system is found to contain factory premixed antifreeze solutions of either glycerin at a maximum concentration of 50% by volume or propylene glycol at a maximum concentration of 40% by volume (or other solutions listed specifically for use in fire protection systems),



The concentration of antifreeze solutions shall be limited to the minimum necessary for the anticipated minimum temperature.

Following the annual test, a tag must be attached to the riser indicating the date of the last test, the type and concentration of antifreeze solution, the date the antifreeze was replaced (if applicable), the name and license number of the contractor that tested and/or replaced the antifreeze solution, a statement indicating if the entire system was drained and replaced with antifreeze and a warning to test the concentration of the solution at yearly intervals per NFPA 13D.

### Existing NFPA 13 and NFPA 13R Sprinkler Systems

- Antifreeze solutions systems must be tested annually, prior to the onset of freezing weather.
- If it is determined that the solution found in the system is no longer permitted or if the type of antifreeze cannot be reliably determined, the system must be drained and replaced with an acceptable factory premixed solution.

- If the initial tests indicate that the solution type is acceptable, test samples must be taken at the top and bottom of each system (in some cases an additional sample must be taken).
- If all the test samples indicate a concentration of glycerin not greater than 50% by volume or propylene glycol not greater than 40% by volume, then the solution is permitted and may remain in the system.
- If any of the samples indicate a concentration in excess of the permissible maximum concentrations (i.e. 50% glycerin/40% propylene glycol), the system must be emptied and refilled with a factory premixed solution):
- For newly introduced glycerin solutions, the solutions must be factory premixed solutions with a concentration not exceeding 48% by volume.
- For newly introduced propylene glycol solutions, the solutions must be factory premixed solutions with a concentration not exceeding 38% by volume.

## Fire Resistance and the National Building Code of Canada and Use of cUL Listed Designs

This article was provided by Janet O'Carroll, C.E.T., Vice President, Innovative Fire Inc.

### CFSA September Technical Session

The CFSA Technical Session for September 2012 was held at Underwriters Laboratories of Canada, where Abbas Nanji, P.Eng presented ULC Standards in the National Building Code of Canada and Emmanuel Sopeju, P.Eng presented UL, ULC and cUL listed assemblies and Canadian Codes.

Abbas identified that there are 40 ULC standards recognized in the National Building Code and 41 ULC standards in the National Fire Code. The standards include a range of subjects including fire detection, suppression, combustibility, flame spread and fire containment (resistance protection).

Many of the standards were discussed including how the testing is completed in the laboratory setting (i.e. Steiner tunnel, cone calorimeter, cycling test, etc.), various acceptance criteria and a number of photos depicting actual testing conditions.

Emmanuel discussed the difference between the UL and ULC/cUL listed assemblies and the importance of the mark in regards to the testing and certification of building materials and assemblies. Also discussed was the difference between listed building materials (i.e. drywall) and listed assemblies (i.e. a firestop system design, etc.).



Emmanuel identified that both building materials and assemblies are required to meet Canadian Code requirements and have proof of conformance (i.e. the ULC/cUL mark).

For those members who attended, the seminar provided an opportunity to further clarify ULC standards, the integration of the standards into the Canadian codes, and the importance of standards, testing and the mark.

The Canadian Fire Safety Association would like to thank both Abbas and Emmanuel for taking the time to provide the seminar to members and to ULC for arranging the use of their training facility.

## Consultation of **Vulnerable Occupancies**

This information was obtained from the Ontario Ministry of Community Safety & Correctional Services website: [http://www.mcscs.jus.gov.on.ca/english/publications/FireSafetyConsultation/fire\\_safety\\_consultation.html](http://www.mcscs.jus.gov.on.ca/english/publications/FireSafetyConsultation/fire_safety_consultation.html)

### Consultation on Fire Safety for Vulnerable Residents in Ontario

The 'Consultation on Fire Safety for Vulnerable Residents in Ontario' was initiated by the Ontario government in the fall of 2010 to determine what next steps can be taken to improve fire safety in occupancies housing vulnerable Ontarians.

The Ontario government is now reviewing and considering all of the input from the consultation.

### Overview of the Consultation Process

The fire safety consultation was conducted between November 2010 and July 2011 to obtain feedback from fire safety partners on how to improve fire safety in occupancies housing vulnerable Ontarians. The consultation focused on several key fire safety areas, including:

- Fire Prevention and Education;
- Fire Protection and Inspection;
- Legislation and Regulatory Tools;
- Enforcement and Penalties; and,
- Implementation.

The consultation was open for public comment with a focus on 'care' and 'care and treatment' occupancies that provide housing or other accommodation to vulnerable Ontarians. The Ministry of Community Safety and Correctional Services' online consultation, held from November 2010 until March 2011, received a total of 238 completed consultation responses from the following respondent groups: fire community; retirement homes; other occupancies 1; Municipalities; and, advocacy groups/agencies/associations.

The online consultation process identified key themes and trends that required further investigation. Follow-up discussions were held with key fire safety partners in June 2011 to provide clarification and additional input with regard to the identified issue.

This group includes respondents for occupancies housing vulnerable Ontarians, other than seniors.

### Key Findings

Input and feedback received through the consultation is presented below. This summary reflects key findings which relate to the focus of the consultation.

There was a wide range of responses both within and between groups. For many consultation questions, the responses split into two polarized response patterns.

The summary of these trends should be considered with this in mind.

### Improved Fire Safety Inspections

Respondents indicated a need for regularly scheduled inspections, inspections upon request, and consistency of inspection services across the province.

Overall, 74 % of respondents disagreed that the current framework/practice for fire safety inspections by municipal fire departments is sufficient and 96% of respondents agreed that establishing a prescribed frequency of fire safety inspections for occupancies housing vulnerable residents is an important tool for fire safety and prevention.

The following suggestions emerged for improvements to fire safety inspections:

- The development of a provincial standard for inspections and compliance tools;
- Provincial standards and inspection requirements should be reflective of the size and
- type of facility and/or vulnerability of residents
- Increased fire department resources to conduct inspections; and,
- Need for legislated inspections.

### Training/Ontario Fire Code

A lack of knowledge of the current requirements under the Ontario Fire Code was highlighted across many responses. There was also support for changes to the Ontario Fire Code.

Percentages given for agreement include the responses 'agree' and 'strongly agree' and for disagreement include the responses 'disagree' and 'strongly disagree'. All results expressed in percentages are restricted to the online consultation process and not the subsequent discussions with key fire safety partners.

### Furthermore,

- 56% of respondents agreed that owners/operators are currently complying with the regulatory requirements of the Ontario Fire Code, while 31% of respondents remained neutral, selecting neither agree nor disagree;
- 45% of respondents remained neutral, selecting neither agree nor disagree, pertaining to whether the existing Ontario Fire Code requirements for 'care' and 'care and treatment' occupancies are sufficient, while 40% of respondents disagreed; and,
- 48% of respondents remained neutral, selecting neither agree nor disagree, pertaining to whether the enforcement of the existing Ontario Fire Code, including existing retrofit requirements, is adequate, while 32% of respondents disagreed.

Respondents indicated a need for standardized training of owners/operators and staff pertaining to fire safety and obligations under the Ontario Fire Code. It was noted that training should include staff obligations as they relate to evacuations involving vulnerable individuals. In conjunction with an enhanced inspection regime, it was suggested that owners/operators should provide staff training records at the time of inspection.

## Public/Occupant Role

Respondents indicated that owners/operators have the responsibility to educate their occupants on the contents of the fire safety plan, conduct regular fire drills and retain records to aid in inspection procedures.

In addition, 95% of respondents agreed that residents have a role to play in terms of fire safety and prevention. Respondents indicated that occupants have the responsibility to participate in fire safety education sessions to the extent that they are able and also to ensure they do not engage in unsafe practices (e.g., smoking, hoarding, cooking in rooms, and using unauthorized appliances such as space heaters).

Other issues were identified regarding occupant responsibility including ensuring that occupants can report fire safety violations without fear of retribution from owners/operators, as well as imposing fines on the occupants for engaging in unsafe practices.

Public education pertaining to fire safety was highlighted as 42% of respondents agreed and 47% of respondents disagreed that municipalities are currently meeting their obligations regarding public education and fire prevention programs within the community.

## Fire Safety Plans

A common theme from respondents was the need for comprehensive fire safety plans, developed with and approved by the municipal fire department. Respondents indicated that the plan should also be posted, all staff should be fully trained on it, and occupants should be educated on the contents of the plan. It was suggested that the establishment of best practice guidelines for owners/operators to follow in the development of fire safety plans and fire drills may be helpful.

## Enforcement/Fines/Compliance Rebates

Respondents provided varied responses pertaining to enforcement of the Ontario Fire Code and fines. Some respondents were supportive of higher fines to increase compliance, while others indicated the current system is sufficient.

There were suggestions that facilities in violation should be given the opportunity to improve and then be reassessed before fines are levied, and collected fines be used to fund retrofits and improve the safety of the homes.

Respondents indicated that there is a need for consistency in enforcement both from inspectors and the...

court system. Additional education of fire safety issues for the court system was suggested to improve enforcement consistency across the province.

Another theme that emerged was the potential to provide tax rebates to owners/operators found in compliance with the Ontario Fire Code.

## Resources/Staffing

Views on the need for additional resources to improve fire safety were identified by respondents across all areas. Specifically, the need for additional staff was a strong theme. Respondents indicated a need for additional staff at municipal fire departments with some suggesting a legislated and funded position and others a legislated staffing ratio for residences housing vulnerable Ontarians.

## Retrofits Other Features for Retrofit

Views on the need for other retrofit features varied depending on the respondent. Themes that emerged included the need for retrofit features such as strobe light alarms, self-closing doors, and features that address the safety needs of those who are deaf or hard of hearing.

More than 80% of respondents agreed that changes to the Ontario Fire Code in terms of features such as zone fire separations, self-closing hardware for suite doors, remote connection for fire alarm safety, emergency lighting upgrades, and voice communication for buildings more than three stories high should be required on a retrofit basis in existing buildings housing vulnerable residents that were constructed before 1998.

However, there was also a concern that some retrofits could be hazardous to occupants (e.g. self-closing doors are too heavy for some individuals) or may make a group home feel like an institution. It was suggested that, whenever possible, retrofits be done in such a manner as to minimize aesthetic impact on the facility.

Overall, 42% of respondents disagreed and 53% of respondents agreed that, should the above retrofits become mandatory for existing occupancies housing vulnerable residents, some occupancies should be exempt from this requirement due to the circumstances cited above.

## Automatic Sprinklers

Overall, 50% of respondents agreed and 41% of respondents remained neutral that the installation of fire sprinklers should be required on a retrofit basis in existing buildings housing vulnerable residents that were constructed before 1998.

As with the other retrofits outlined above, 43% of respondents disagreed and 53% of respondents agreed that should the installation of fire sprinklers become mandatory for existing occupancies housing vulnerable residents, some occupancies should be exempt from the requirement.

Such exemptions would be reflective of the number of residents and alternate fire safety retrofits in place in the facility.

## Operational and Financial Impacts of Retrofits and Exemptions

There was broad agreement across respondents that there will be operational (79%) and financial (98%) impacts on owners/operators and residents associated with the installation of fire safety features/retrofits.

There was also broad agreement across respondents that there will be operational (77%) and financial (98%) impacts on owners/operators and residents associated with the installation of fire sprinklers.

## Summary of Key Findings

Overall, respondents were supportive of changes in the following areas:

- Enhanced inspections with clear mandate and parameters;
- Training for owners/operators and staff, as well as for the court system;
- Consistency in enforcement and application of fines/penalties;
- Public/occupant responsibility;
- Need for comprehensive fire safety plans
- Enhanced public awareness;
- Increased staffing resources;
- Additional municipal resources; and,
- Installation of automatic sprinklers and other fire safety retrofits.

However, respondent groups had varied positions on the need for changes related to funding, exemptions and increases in fines.

## Muskoka Heights Inquest

by Sandy Leva

On June 21, 2012 the CFSA held a Breakfast Meeting at the Delta Markham Hotel, with guest speaker Dirk Huyer, MD, the Regional Supervising Coroner for Muskoka. Dr. Huyer's presentation shared some of the findings from the investigation into the 2009 Muskoka Heights Retirement Home Fire. The contents of this article are based on Dr. Huyer's presentation.

The purpose of the investigation was to establish all of the facts surrounding the event, such as who died, when and where the death(s) occurred and the medical cause of death. As well, the circumstances that might have contributed to the deaths were examined and documented. The reason for documenting this information is that if an inquest is determined to be appropriate, the jury will have a basis from which to make recommendations to prevent future deaths in similar situations.

Dr. Huyer listed 8 cases between 1980 and 2012 in which there were fire related fatalities in homes for the aged, including the case involving 4 fatalities at Muskoka Heights Retirement Home.

The Muskoka Heights Retirement Home was an old two-storey wood framed building, (built around 1914) with multiple additions and no sprinkler system. The facility was managed by a Registered Nurse (RN) following its most recent purchase in 2004, and later by a Personal Support Worker (PSW) who had not been given any management training and minimal fire safety training. Fire drills had only been conducted during daytime hours.

Of the 20 residents, 10 required the use of walkers or wheelchairs. Two of the deceased used a walker or a wheelchair. The fire broke out in the medications room. All four of the deceased had cognitive challenges.



A number of Provincial Offences were identified, including not keeping records of testing, exits not clearly marked, lack of training of supervisory staff, inadequate fire drills, no post-emergency plan, fire extinguishers not maintained, fire alarm not tested. In addition to the charges, fines were assessed on both individuals and the corporation.

The recommendations that were made included requiring proof of compliance with the Ontario Fire Code prior to granting a license, mandatory fire safety training course for at least one staff and additional fire safety training for all staff as a condition of licensing.

The tragic loss of life could have been prevented had appropriate competencies and equipment been on hand. It would be even more tragic if we fail to learn from this incident and allow a similar occurrence in the future.

## UL's Fire Research Program

provided by Carla Slawson (UL)

As part of UL's fire research program, several members of the UL Fire Research Staff are working with Fire Department of New York (FDNY) and National Institute of Standards and Technology (NIST) on Governor's island in New York City this week conducting research tests on fire behavior. This research will allow FDNY members hands-on opportunities to realize and respond to the fire science research through various scenarios and experiments. Additionally, the research will be utilized to teach and train the more than 11,000 FDNY members utilizing the most up-to-date fire research available.

As a result of much collaboration amongst Corporate Marketing, UL's research team and the Commercial department, UL was featured in a front page news story of the New York Times on July 1. One of our Fire Research Engineers, Stephen Kerber was quoted twice and did a great job of positioning UL's expertise and thought leadership in pushing forward the science of firefighting. Click here to read the article. A second article in the New York Times appeared on July 2. Click here for that link: [http://www.nytimes.com/2012/07/03/nyregion/governors-island-buildings-burn-in-fire-department-experiments.html?\\_r=1](http://www.nytimes.com/2012/07/03/nyregion/governors-island-buildings-burn-in-fire-department-experiments.html?_r=1)



Additionally, reporters from NBC's "Nightly News with Brian Williams" aired a national news segment that featured the research back in July.

## Scholarships



CFSA and scholarship recipients are very thankful for the outstanding support of the CFSA Peter Stainsby Award, CFSA Fire Safety Award, CFSA LRI (Leber/Rubes Inc.) Award, CFSA Randal Brown & Associates Award, CFSA Nadine International Inc. Award, CFSA Underwriters' Laboratories of Canada Awards, and CFSA Stanley T. Murray Award for Continuing Education in the Field of Fire Protection.

We are very happy to announce that in 2013 we will be adding two additional Scholarships:

CFSA - Town of Markham,  
Building Standards Department Scholarship

CFSA - A Siemens Canada scholarship

If your organization or business is interested in creating a scholarship please contact us for information:

Canadian Fire Safety Association  
2012 Scholarship Initiative  
2175 Sheppard Avenue East  
Toronto, ON M2J 1W8

We are confident that together we can support future professionals who will embrace the challenge to make this world a safer place to live and work through fire protection and life safety.



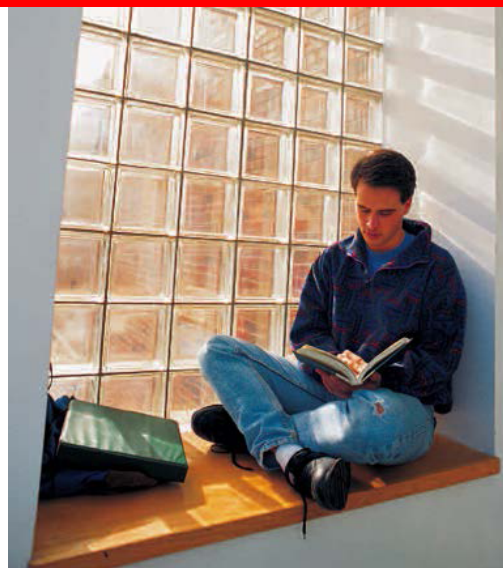


# CANADIAN FIRE SAFETY ASSOCIATION 2012 SCHOLARSHIP ENTRY FORM

## \$ 6,400.00 in Scholarships

### THE SCHOLARSHIPS:

- **\$1,000.00 CFSA Peter Stainsby Award**  
Presented to the TOP GRADUATE of a 3 year full-time Fire Protection Technology Course, who has excelled with outstanding leadership, motivation and technical skills and an overall academic proficiency  $\geq 3.3$  GPA.
- **\$1,000.00 Stanley T Murray Continuing Education Award**  
Presented to a full-time post graduate or part-time continuing education course STUDENT in fire safety and/or fire protection systems, codes or engineering, successfully completed with an overall academic proficiency  $\geq 3.3$  GPA. Course tuition cost or maximum of \$ 1,000, which ever is less.
- **\$850.00 CFSA Fire Safety Award**  
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  $\geq 3.3$  GPA.
- **\$850.00 CFSA Leber Rubes Inc. Award**  
Presented to a TOP YEAR 2 STUDENT of a 3 year fulltime Fire Protection Technology Course with exceptional overall skills in Fire Alarm System Technology and an academic proficiency  $\geq 3.3$  GPA .
- **\$850.00 CFSA Randal Brown & Associates 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  $\geq 3.3$  GPA
- **\$850.00 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  $\geq 3.3$  GPA
- **\$500.00 CFSA Underwriters Laboratories of Canada Award**  
Presented to a TOP YEAR 2 STUDENT of a 3 year fulltime Fire Protection Technology Course, with exceptional academic skills in Codes and Standards and an overall proficiency  $\geq 3.3$  GPA
- **\$500.00 CFSA Underwriters Laboratories of Canada Award**  
Presented to a TOP 1ST YEAR STUDENT of a 3 year full-time Fire Protection Technology Course, with exceptional academic skills in all subjects and an overall proficiency  $\geq 3.3$  GPA



### QUALIFICATIONS AND RULES:

- 1) The recipients must be enrolled in a Fire Protection Technology Course at a Canadian college or university.
- 2) All CFSA Scholarship Award entries (c/w academic grades) must be submitted by March 14th to:  
Attention: 2012 Scholarship Form  
Canadian Fire Safety Association,  
2175 Sheppard Avenue East, Toronto, ON M2J 1W8
- 3) 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.)
  - c. Any experience you have in fire safety either work related, attendance at conferences, CFSA functions etc. and a statement on your extracurricular involvement (ie student clubs, mentoring, tutoring, athletics & community volunteering)
- 4) All entries become the property of the Canadian Fire Safety Association. Awards Ceremony will take place on April 4, 2012 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 it's distinguished Scholarship Sponsors.



# CFSA

# Membership Application Form

### 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.

### Corporate Plus

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

### Individual Member:

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](http://canadianfiresafety.com)

## CFSA Application for MEMBERSHIP

**HOW TO APPLY:** You can either apply by mail/fax or simply by downloading our printable registration form (PDF format).

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Business Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Please indicate in the appropriate box the category that best describes your vocation:

- |   |   |
|---|---|
| <input type="radio"/> Architect                             | <input type="radio"/> Engineer                          |
| <input type="radio"/> Building Official                     | <input type="radio"/> Fire Service                      |
| <input type="radio"/> Insurance Industry                    | <input type="radio"/> Fire Consultant                   |
| <input type="radio"/> Fire Protection Manufacturer/Supplier | <input type="radio"/> Building Owner/ Developer/Manager |
| <input type="radio"/> Other (please specify)                |   |

## 2012 Membership Fees

	Fee	HST	Total
<input type="radio"/> Corporate	\$ 398.23	\$ 51.77	\$ 450.00
<input type="radio"/> Corporate Plus	\$ 774.34	\$ 75.66	\$ 850.00
<input type="radio"/> Individual Member	\$ 80.00	\$ 10.40	\$ 90.40
<input type="radio"/> Student Member	\$ 25.00	\$ 3.25	\$ 28.25
<input type="radio"/> Associate Member	\$ 53.10	\$ 6.90	\$ 60.00
<input type="radio"/> Provincial/ Territorial Chapters	\$ 176.99	\$ 23.01	\$ 200.00

Cheque Enclosed \$ \_\_\_\_\_      

Card # \_\_\_\_\_ Exp Date / \_\_\_\_\_

Name on Card  
(please print) \_\_\_\_\_

Signature \_\_\_\_\_

Please make cheques payable to:

**Canadian Fire Safety Association**

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

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Canadian Fire Safety Association is pleased to announce the 2013 Annual Education Forum

\*\*\* We are returning to the Paramount Conference Centre, and have already booked many of our popular regular speakers. Please mark the date on your calendars and stay tuned for updates.

<b>Date:</b>	Wednesday April 3, 2013	<b>Theme:</b>	to be announced shortly!
<b>Venue:</b>	Paramount Conference & Event Centre 222 Rowntree Dairy Road, Woodbridge (Hwy 407 and 400)	<b>Registration:</b>	to be announced shortly!
		<b>Sponsorship Opportunities:</b>	to be announced shortly!

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