

CFSA NEWS

CANADIAN FIRE SAFETY ASSOCIATION

 *Fire Safety is Everybody's Business*

WINTER/SPRING 2014

Industry News



Inside This Issue

- 3 President's Message
- 4 CFSA Annual Education Forum
- 6 Scholarship Opportunities
- 7 2014 Scholarships
- 8 Board of Directors
- 9 Sponsorship Opportunities
- 10 Understanding the importance of Conformance with ULC Listed Fire Resistant Designs
- 14 The "Secret Sauce" in Mass Notification Systems - Part 3 of 3
- 17 Vulnerable Occupancies: an opportunity for building & fire officials to improve fire safety
- 19 Safety Tips: From the Ontario Fire Marshalls Office
- 21 CFSA Membership Application
- 22 Corporate Members
- 23 ULC Standards Bulletin 2013-18
- 23 Upcoming Events

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.

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 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



We are nearing the beginning of Spring (although you wouldn't be able to tell by looking out the window!), which always reminds me that the CFSA Annual Education Forum is also just around the corner.

Preparations are well under way for this year's CFSA Education Forum. This year's Annual Education Forum is entitled "The Changing Face of Fire Safety" and consists of an array of topics and speakers from across the fire and life safety industry, expertly assembled by our Annual Education Forum chair, Susan Clarke. Registration information can be found in this edition of the CFSA News as well as online at www.canadianfiresafety.com.

Other recent CFSA activities include hosting a workshop on applying the OFM Guideline for staffing levels in vulnerable occupancies and providing representation on the OFM Carbon Monoxide Alarms technical advisory committee.

The CFSA continues to promote a fire safe environment in Canada by disseminating fire and life safety information to our members and the community. Thank you to all the members whose active participation in the fire and life safety industry allows us to succeed at this objective.

If you are reading this Newsletter and are not yet a member of the CFSA, I urge you to consider one of our memberships; we offer a variety of membership categories which can be reviewed in more detail by visiting our website. And once you've enjoyed our Newsletter, feel free to pass it on to others.

There are currently some vacant positions on the CFSA Board of Directors. If you would like to become more active in the CFSA please contact myself or any member of the CFSA executive for further information.

This will be my final message as President of the Canadian Fire Safety Association.

During my two year term in office, I have had the opportunity to experience firsthand the monumental task that has been undertaken by my predecessors and I hold nothing but awe and admiration for their past hard work. The amount of energy and time it takes to pilot the CFSA is intimidating at first, but it is well worth the effort. That said, I have served with a very dedicated Board members who over the past years have been instrumental in the success of the CFSA. I wish to thank each and every Board member for their friendship, dedication and support.

I look forward to seeing you at the Annual Education Forum on April 2, 2014.

Matteo Gilfillan
President

A handwritten signature in black ink, appearing to read 'Matteo Gilfillan', written in a cursive style.



CANADIAN FIRE SAFETY ASSOCIATION
ASSOCIATION CANADIENNE DE SÉCURITÉ INCENDIE
Annual Education Forum - Wednesday April 2, 2014
 Paramount Conference & Event Venue 222 Rowntree Dairy Road, Woodbridge

“The Changing Face of Fire Safety”

2175 Sheppard Avenue East, Suite 310, Toronto, Ontario M2J 1W8 Tel: (416) 492-9417 Fax: (416) 491-1670 Website: www.canadianfiresafety.com

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?

Wed April 2, 2014
 7:45 a.m - 4:15 p.m

Where?

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

Inquiries

Please contact Mary Lou Murray
 maryloum@taylorenterprises.com
 416-492-9417



**Grand Draw
 at Closing
 Ceremonies!!!**

Early-Bird Discount
\$25 OFF Per Person if
 registered by
 February 28, 2014

Early-Bird Draw
 Register by Feb 7th, 2014 & be
 eligible for an early bird draw
 - an iPad, sponsored by DHI



- Sponsorship Opportunities available
- Advance Table Booking
- Donating Door Prizes (*mention in CFSA News*)
- Please advise if special dietary needs

Keynote Speaker: Fire Marshal Ted Wiclewak, Office of the Fire Marshal & Emergency Management

Program at a Glance (Tentative)

<p>7:30am.–8:00am. Registration and Breakfast</p> <p>7:45am.–8:00am. Annual General Meeting Speaker: Matteo Gilfillan, CFSA President</p> <p>8:00am.–8:15am. Welcome Address Fire Chief Larry Bentley, Vaughan Fire & Rescue</p> <p>8:15am.–9:00am. Keynote Speaker: Fire Marshal Ted Wiclewak “The Changing Face of Fire Safety”</p> <p>9:00am.–9:45am. Community Safety Enhancements Speaker: Pierre Yelle, Executive Director Office of the Fire Marshal and Emergency Management</p>	<p>9:45am.–10:15am. Refreshment break & door prizes Visit Exhibit booths</p> <p>10:15am.–10:45am. Ontario Fire Code Update Speaker: Al Suleman, P.Eng., Assistant Deputy Fire Marshal, Office of the Fire Marshal and Emergency Management</p> <p>10:45 am.–11:15am. Ontario Building Code Updates Speaker: To be determined Ministry of Municipal Affairs and Housing</p>
--	--

CANADIAN FIRE SAFETY ASSOCIATION

ANNUAL EDUCATION FORUM • April 2, 2014

Program at a Glance (cont'd.)

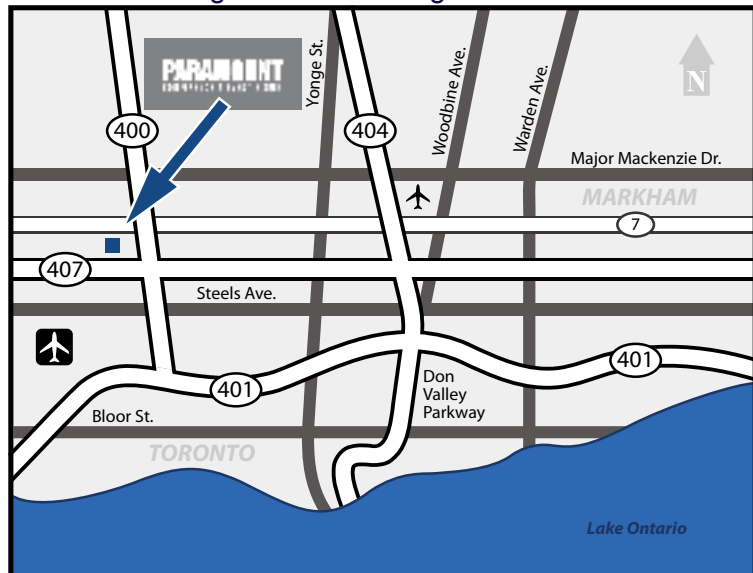
- 11:15am – 12:00pm **Renovation and Construction - "Are you ensuring the safety of occupants and contractors?"**
Speaker: Fred Leber, CEO
LRI Fire Protection and Building Code Consulting Engineers
- 12:00pm – 1:30pm **LUNCHEON**
Awards

Outdoor Display – Molly the Fire Dog
Whitby Fire Department

Visit Exhibit Booths
- 1:30pm – 2:15pm **Electrical Fire Safety**
Speaker: Joel Moody, MD, PhD, MPH
Electrical Safety Authority
- 2:15pm – 3:00pm **ULC Certification**
Speaker: Emmanuel Sopeju,
Underwriter Laboratories
- 3:00pm – 3:15pm **Refreshment break & door prizes**
- 3:15pm – 4:00pm **Code Compliance and Enforcement - Inspection Orders, and Prosecution**
Speaker: Nancy Madonald-Duncan,
Program Specialist - Office of the Fire Marshal & Emergency Management

Cathy Robertson,
City of Toronto Fire Department, Legal
- 4:00pm – 4:15pm **Closing Comments & Grand Draw**

This symposium qualifies for professional development towards NFPA/CFPS Recertification. This Symposium also counts for Self-Directed Learning Points under the OAA Continuing Education Program.



www.canadianfiresafety.com

Registration Form

HOW TO REGISTER:

By mail/fax simply download our printable registration form or Pay online using PayPal at canadianfiresafety.com.

Name: _____

Title: _____

Company: _____

Address: _____

City: _____

Province: _____ Postal Code: _____

Business Phone: _____

Fax: _____

Email: _____

Would you like your confirmation sent by:

Email Fax Regular Mail

REGISTRATIONS FEE TOTAL

WEDNESDAY, APRIL 2, 2014

REGISTRATIONS	FEE	TOTAL
MEMBER RATE		
Early Bird	\$175.00	_____
After February 28, 2014	\$200.00	_____
NON-MEMBER RATE		
Early Bird	\$225.00	_____
After February 28, 2014	\$250.00	_____

OTHER OPTIONS

Sponsor a table for the day (6 seats)	\$900.00	_____
Lunch only	\$70.00	_____
Students	\$60.00	_____
HST Registration #12620 8610 RT0001	+ 13% GST	_____

Cancellations will be accepted until March 26, 2014. After March 26, 2014, only substitutions will be permitted.

Total \$ _____

Please send me membership information on the Canadian Fire Safety Association.

Cheque Enclosed \$ _____   

Card # _____ Exp Date / _____

Name on Card (please print) _____

Signature _____

Please make cheques payable to:

Canadian Fire Safety Association
2175 Sheppard Ave. E., Suite 310, Toronto, ON M2J 1W8
Telephone (416) 492-9417 Fax (416) 491-1670



CANADIAN FIRE SAFETY ASSOCIATION
ASSOCIATION CANADIENNE DE SÉCURITÉ INCENDIE

Scholarship Opportunities

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

Scholarships funded through membership contributions:

- Peter Stainsby Award:
Founding member, and President 1972 - 1973
- Stanley T Murray Continuing Education Award:
Founding member
- CFSA Fire Safety Award:
2013 honouring the memory of Rich Morris
Founding member, Director for 35 years, President 1975/78

Corporately-funded Scholarships:

- CFSA Leber Rubes Inc. Award
- CFSA Randal Brown & Associates Award
- CFSA Nadine International Inc.
- CFSA Underwriters' Laboratories of Canada Awards (2)
- CFSA City of Markham, Buildings Standards Department Award
- CFSA Siemens Canada Ltd. 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@taylorenterprises.com.

For Individual Donations

Please fill out the form below and mail in to:

Canadian Fire Safety Association
2175 Sheppard Avenue East Suite 310,
Toronto, Ontario M2J 1W8

Telephone: (416) 492-9417
Fax: (416) 491-1670
E-mail: cfsa@taylorenterprises.com

www.canadianfiresafety.com

Name _____
 Company/Affiliation _____
 Address _____
 City _____
 Prov. _____ Postal Code _____
 Phone # () _____ Fax # () _____
 e-mail _____

Method of Payment

Cheque Enclosed \$ _____

Account # _____

Expiry Date _____

Signature _____

Contribution Level:
 \$25 \$50 \$100 Other _____

A tax receipt will be mailed for donations of \$25.00 or higher



\$1,000.00 CFSA Peter Stainsby Award

Presented to the TOP GRADUATE of a 3 year fulltime Fire Protection Technology Course, who has excelled with outstanding leadership, motivation and technical skills and an overall academic proficiency ≥ 3.3 GPA. Winner: Anna Mielnik



\$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 ≥ 3.3 GPA. Course tuition cost or maximum of \$1,000, whichever is less. Winner: Patrick Mulherin



\$1,000.00 CFSA Fire Safety Award 2014 In Memory of Rich Morris

Presented to the TOP STUDENT having completed year 2 of a 3 year fulltime Fire Protection Technology Course with outstanding leadership, motivational and technical skills and overall academic proficiency ≥ 3.3 GPA. Winner: Richard Webster



\$1,000.00 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 ≥ 3.3 GPA. Winner: Kailee Houter



RANDAL BROWN & ASSOCIATES
ENGINEERS ARCHITECTS LTD.

\$1,000.00 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 ≥ 3.3 GPA. Winner: Matthiew Bonnin



\$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. Winner: Samantha Awad



\$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 ≥ 3.3 GPA. Winner: William Underwood



\$500.00 CFSA Underwriters' Laboratories of Canada Award

Presented to a TOP YEAR 1 STUDENT of a 3 year fulltime Fire Protection Technology Course, with exceptional academic skills in all subjects and an overall proficiency ≥ 3.3 GPA. Winner: Susana Inthavivanh



\$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. Winner: Damiano Ottavian



\$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. Winner: Wei Ning

Recipients will be honoured at the CFSA Awards Lunch

New Members

Associate Member

Dominique Allen

Individual Member

Rodger Reiswig

Student Members

Matthew Bonnin
Leo Chung

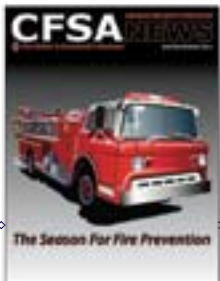
CFSA NEWS

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.



CANADIAN FIRE SAFETY ASSOCIATION
ASSOCIATION CANADIENNE DE SECURITE INCENDIE



Board of Directors

Executive

President Matteo Gilfillan
Randal Brown & Associates
(416) 492-5886

Past President Susan Clarke
Office of the Fire Marshal and Emergency Management
(416) 325-3224

1st Vice President Nick Webb
Whitby Fire & Emergency Services (905) 668-3312

2nd Vice President David Morris
Firetronics 2000 Inc. (905) 470-7723

Treasurer Allison McLean
Atomic Energy of Canada
(613) 584-3311 x42996

Directors

Randy de Launay

Nadim Khan, Ministry of Municipal Affairs & Housing
(416) 585-6453

Jim Stoops, Toronto Fire Services
(416) 338-9050

Sandy Leva, Underwriters Laboratories of Canada
(416) 757-5250 x61521

Janet O'Carroll, Innovative Fire Inc.
(416) 221-0093

Dean Brown, City of Vaughan
(905) 832-8510

Zahid Rashid, Leber-Rubes Inc.
(416) 515-9331

Anthony Van Odyk, Seneca College of Applied Arts & Technology
(416) 491-5050 x26148

Lesley-Anne Coleman
(416) 904-3625

Karim Gebara, Nadine International
(905) 602-1850

CFSA Administrator, Carolyne Vigon
Events Coordinator, Mary Lou Murray

2175 Sheppard Avenue East, Suite 310
Toronto, Ontario M2J 1W8
(416) 492-9417
Fax: (416) 491-1670
E-mail: cfsa@taylorenterprises.com

PLEASE VISIT
WWW.CANADIANFIRESAFETY.COM FOR
UPDATES TO ALL UPCOMING EVENTS.



CANADIAN FIRE SAFETY ASSOCIATION ASSOCIATION CANADIENNE DE SÉCURITÉ INCENDIE

2014 Annual Education Forum




“The Changing Face of Fire Safety”

SPONSORSHIP OPPORTUNITIES

EMERALD (\$3000*)	PLATINUM (\$2000*)	GOLD (\$1000*)	SILVER (\$500*)	BRONZE (\$250*)
* +13% tax - HST # is : 12620 8610 RT0001				
Availability: 3	Availability: 4	Availability: 7	Availability: Unlimited	Availability: Unlimited
Sponsorship Includes: <ul style="list-style-type: none"> ▪ Six (6) registrations to the AEF ▪ Full page ad in the AEF program ▪ Promotional material/ item in registration package ▪ Recognition in the CFSA news ▪ Logo on event brochure ▪ Signage at the AEF ▪ One (1) year website recognition ▪ One (1) table top display 	Sponsorship Includes: <ul style="list-style-type: none"> ▪ Four (4) registrations to the AEF ▪ Full page ad in the AEF program ▪ Promotional material/ item in registration package ▪ Recognition in the CFSA news ▪ Logo on event brochure ▪ Signage at the AEF ▪ Six (6) month website recognition ▪ One (1) table top display 	Sponsorship Includes: <ul style="list-style-type: none"> ▪ Two (2) registrations to the AEF ▪ Half page ad in the AEF program ▪ Promotional material/ item in registration package ▪ Recognition in the CFSA news ▪ Logo on event brochure ▪ Signage at the AEF ▪ Three (3) month website recognition ▪ One (1) table top display 	Sponsorship Includes: <ul style="list-style-type: none"> ▪ One (1) registration to the AEF ▪ Quarter page ad in the AEF program ▪ Promotional material/ item in registration package ▪ Recognition in the CFSA news ▪ Logo on event brochure ▪ Signage at the AEF ▪ Three (3) month website recognition 	Sponsorship Includes: <ul style="list-style-type: none"> ▪ Promotional material/ item in registration package ▪ Recognition in the CFSA news ▪ Logo on event brochure ▪ Signage at the AEF ▪ Three (3) month website recognition
And Select one of the following: <ul style="list-style-type: none"> ✓ Scholarship Awards Luncheon ✓ AEF Program ✓ AEF Delegate Portfolio* 	And Select one of the following: <ul style="list-style-type: none"> ✓ Breakfast ✓ AEF Delegate Notebook ✓ Umbrella ✓ Stainless Steel Coffee Mug 	And Select one of the following: <ul style="list-style-type: none"> ✓ AEF Coffee Break (2) ✓ Delegate Name Badge ✓ Delegate Bag ✓ Dual Ballpoint Stylus ✓ USB Car Charger ✓ Eco Golf Adverttees 		
* your company logo screened on each				

Company: _____ Contact Person: _____
 Address: _____ City/Town: _____
 Province: _____ Postal Code: _____
 Tel:() _____ Fax:() _____
 Email: _____

Payment Method:

Cheque Visa  Mastercard  Amex 

Card #: _____ Expiry Date: _____
 Name on card: _____ Signature: _____



CFSA

Please return this completed form (make cheques payable) to:
Canadian Fire Safety Association
 2175 Sheppard Ave. East, Suite 310 – Toronto, On, M2J 1W8
 Tel: (416) 492-9417, Fax: (416) 491-1670
 Email: cfsa@taylorenterprises.com
www.canadianfiresafety.com

Understanding the importance of Conformance with ULC Listed Fire Resistant Designs

- Article by Frank Donati

When “Based on...” doesn’t meet the Mark.

Understanding the importance of conformance with ULC Listed Fire Resistant Designs



More and more Underwriters Laboratories of Canada (ULC) is finding that building designers who are submitting plans to approving authorities with fire resistant rated assemblies have presented these as being ‘based on the Design No. XXXX’

instead of using the actual listed design when submitting the assemblies for approval. A Design that is submitted as being ‘based on’ is not the Design that is listed by ULC. Seeing this qualifier on a design of it being ‘Based on...’ should signify to an Approving Authority that in some way the design has been changed from that which is contained in the listing to that which is being presented for approval. These designs are therefore not what ULC has listed as a Fire Resistant Design. But how can an Authority know that a design is accurately reflecting the exact design of the assembly as tested and listed by ULC?

Introduction to Fire Resistance Handbook & Designs

Most if not all Building, Fire and related field Officials know that Underwriters Laboratories of Canada (ULC) publishes a Fire Resistance Directory on an annual basis. Does each and every one of them sufficiently know how it works, how to use its contents and what it means when a Fire Resistance Rated Design is Listed?

The Fire Resistance Directory and the subject of resistance ratings, categories, and assemblies are not an easy task to cover. Different categories in the directory have to be treated differently. What may be applicable to wall assemblies may not be applicable for spray applied materials. Wall assemblies are treated very differently from columns, beam designs, floor and roof assemblies. This article and the examples used will provide for a general explanation on the challenges of accepting a ‘based on ...’ design versus the actual design assembly as tested.

The ULC Fire Resistance listings, available for free on-line or the complete Fire Resistance Directory which can be purchased in electronic or softcover format, contains important information to aid in selecting and applying fire resistant assembly designs and includes floors, walls, roofs, beams and columns. These assemblies are designed to prevent a fire from spreading beyond its zone of origin. Underwriters Laboratories of Canada can create fire-exposure conditions that represent either a fully developed interior or exterior building fire or a hydrocarbon pool fire. The duration of the fire exposure may last up to 4 hours.

Once a product is Listed, it appears in the directory which is then able to be referenced by hundreds of AHJs, code officials, and architects annually. A “Listing” by ULC is intended to provide data with respect to the ability of a product – in these cases a fire rated assembly design – to perform its required protective function. Review of such data enables the inspection authority to “approve” a Listed design for the specific purpose under consideration.

A note on the word ‘Approved’, as properly used in the fields of fire protection and accident prevention, is intended to mean ‘acceptable to the authority having jurisdiction’. ULC exists to be of service to inspection authorities by supplying authoritative information on products or services. Its listings are intended to provide data with respect to the degree of hazard present, if any or the ability to perform its required protective function. Review of such data enables the inspection authority to ‘approve’ a Listed product or service for the specific purpose under construction. This is why ULC follows the long established policy of referring to products covered as being ‘Listed’ rather than ‘Approved’, since the two term are not always synonymous.

How a Design Listing works

A manufacturer designs, invents or finds a new type of steel ‘I’ beam, intumescent paint formulation, and fire stop flap ...any of the hundreds of components that could be part of an assembly design. An architect innovates a new way to make a 1hr rated wall that for example incorporates only sustainable products. These individuals bring their design assemblies to our ULC Testing Facilities where ULC staff will work with them to have their products tested to the required National Standards and ensure conformity with the testing requirements and provide the data to support the 1hour, 2 hour etc. rating of the design. The Standard used for Fire Resistant Ratings is CAN/ULC-S101, Fire Endurance Tests of Building Construction and Materials. This Standard is critical for fire resistance rating acceptance in Canada as the National Building Code requires conformance with CAN/ULC-S101.

The ULC listed Design O600 (below) is an example of a specific design that has been tested to the requirements for a fire resistant design by ULC for conformity with the National Building Code of Canada. This Design, when implemented in the construction exactly as it is laid out in the design’s description, will provide a 1h fire resistance rating and the supporting data has been collected...

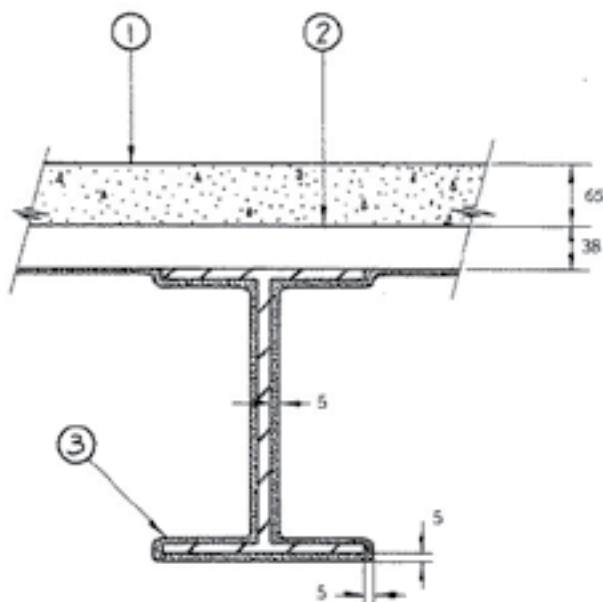
– based on the required testing Standards. The design will show the individual components that are required to bring the assembly together:

- Generic components are those that do have a specific listed product
- Components with a black dot • are a proprietary material(s) that are required to be a ULC listed component(s) and are critical to the assembly. Without these the assembly is not what is listed in the directory and what the test data supports as a fire resistant design

Further to just testing and listing the Design – ULC also ensures that when a design is tested for listing in Canada that the proprietary components that are required to be listed are available in Canada. ULC also provides market surveillance on these required components so that if they change in any way from the samples tested with the design – the design provider will be notified so that it can be retested or removed from the Handbook if no longer able to be constructed.

The example below shows that for Design O600 – the Beam, Sand-Gravel Concrete and Fluted and Cellular Steel Floor Units are all generic so any brand can be used but the Mastic and Intumescent Coating must be the listed Flame Control No. 50-44 by FLAME CONTROL COATINGS LLC. The use of any other Mastic or Intumescent Coating would invalidate this Design as it was not the assembly tested and therefore no way to know if it was in conformance or would perform as indicated for 1hr.

Design No. O600 Nov14, 2002
 Restrained Beam Rating - 1 h
 Unrestrained Beam Rating - 1 h
 Load Restricted — Assembly evaluated in accordance with Working Stress Design methods, for use under Limit States Design methods; refer to information under Guide BXUVC.



Beam - W200x36, Minimum Size.

1. Sand-Gravel Concrete — 2400±50 kg/m³.
2. Fluted and Cellular Steel Floor Units — Welded to beam.
3. Mastic and Intumescent Coating — (CAVNC). The use of Flame Control No. 50-44 requires proper ventilation during application and drying to minimize the possibility of an accumulation of flammable vapours. Such accumulation may be indicated by strong solvent odours. Applied in one coat to design thickness requirements. When fluted steel deck is used, the area between the steel deck and the beam top flange shall be filled.

When a Design Listing no longer works

Seeing how the Fire Resistance ratings work, how is it used to provide unlisted or untested designs in today's construction projects? This is where the matter of "Based On..." enters. The term Based On is being used to misrepresent Fire Resistant Designs by listing the Design without providing for all the listed components critical to the assembly and categorically required for the Design to perform indicated in the listing – whether 1hr, 2hr etc. as listed. Any changes to the design invalidates it and you are left with something that has not been tested or supported by any data to show that it meets the fire resistance rating requirements as laid out in the Building Code.

Design No. F909
 Rev: 11-2011
 Restrained Assembly Rating - 1 or 1-1/2 h (See Item 4)
 Unrestrained Assembly Rating - 0 or 1 or 1-1/2 h (See Item 4)

1. **Sand - Gravel Concrete** — Normal density concrete of 2400 ± 50kg/m³ density and nominal 30 MPa compressive strength. Minimum concrete topping of D as measured from the top plane of the Steel Floor Units (See Item 4).
2. **Wire Fabric** — 5.2 by 15.2 - Min wire thickness MW18.7/MW18.7 welded steel wire mesh.
3. **Rib Reinforcement** — Steel reinforcing bar having a minimum yield strength of 400 MPa sized in accordance with deck manufacturer's load tables to meet structural requirements. Rebars to be adequately supported during construction to provide a 40 mm concrete cover.
4. **Steel Floor Units** — (CHWCC), Composite galvanized steel fluted units, with minimum design thickness of 0.95 mm and yield strength of 280 MPa. Adjacent units fastened at the bottom of common ribs at 250 mm OC with side lap washers and 32 mm long self-drilling fasteners as per manufacturer's instructions. Shearing of the units and end connection to independently rated concrete beams as per manufacturer's instructions. Loading of the units to be in accordance with manufacturer's load tables based on simply supported conditions.

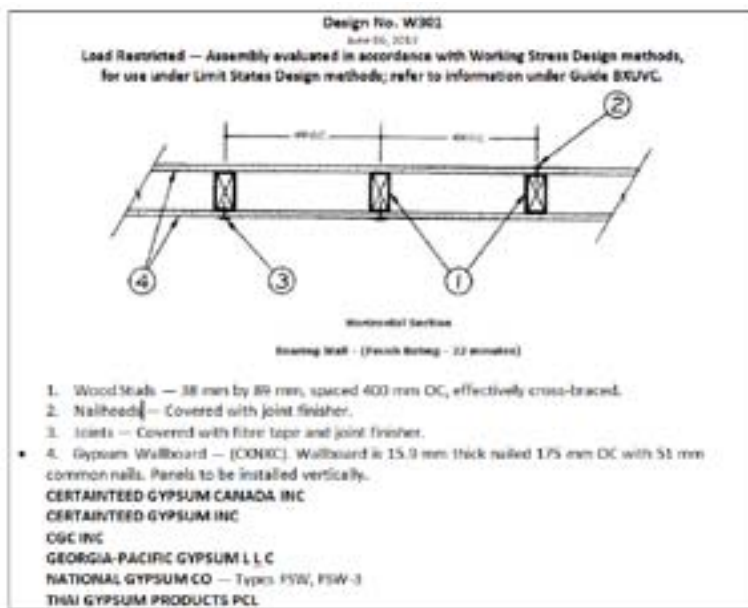
	Concrete Topping Ø = 64 mm	Concrete Topping Ø = 90 mm
Restrained Assembly Rating, h	1	1-1/2
Unrestrained Assembly Rating, h	1	1-1/2
(Steel Deck Span ≤ 10 m)		
Unrestrained Assembly Rating, h	0	0
(Steel Deck Span > 10 m)		

BAILEY METAL PRODUCTS LTD — Type COMSTAR™ 210 and COMSTAR™ 225

Commentary

Using the example listed below, Design F909 requires either COMSLAB™ 210 or COMSLAB™ 225 a listed steel flooring unit by Bailey Metal Products LTD for this specific design to meet the requirements for Fire Resistance as indicated on the design specification sheet. This, like any ULC listed Designs, is required to have all the components – generic AND Listed – otherwise it is not a ULC listed design, has not been tested to CAN/ULC-S101 and therefore does not conform to Canadian Code requirements.

The following Design No. W301 shows us an example of where a choice of different proprietary components that are independently listed can be used and thereby provide a designer or builder with choice of product for this listed Design. Design No. W301 has been individually tested with each of the specific gypsum wallboards listed under component #4 for the design and all have passed the required testing (CAN/ULC-S101). Any other gypsum used outside of the parameters and listing set for component #4 means you're not looking at listed Design No. W301 but rather an untested and therefore a non-ULC listed Fire Resistance Design and NOT the Design No. W301 that is listed in the Fire Resistance Handbook.



Changing a component?

Now, if a designer wanted to use another product as one of the required components and it is not listed to that design – they be required to have this now altered design tested and listed by a Standards Council of Canada Accredited Certification Body to ensure conformity with Canadian Code requirements. ‘Based on’ can’t be accepted as it’s not been tested to conform and close enough isn’t good enough when looking at Fire and Life Safety. If a specific product for a component is required on a construction – anyone can check the ULC Online Directory to verify if there is a design that uses it so as to meet their needs. When a ‘Based on’ design is accepted by an Authority - who will certify that the changed design will behave the same as the listed?

There are conditions that allow one to change a design but the requirements are listed under ULC/ORD-C263E, “Criteria for Use in Extension of Data from Fire Endurance Tests”. This is used when a design such as the No. O600 (first example) which is a beam design is preferred to be used as a joist design. ULC/ORD-263E uses criteria based on generally accepted principles involving the extension of test data using simple considerations and requires supporting documentation from a Structural Engineer when presented to Authorities for approval. ULC/ORD-C263E does not cover assemblies obtained by substitution of one proprietary material for another proprietary material or for materials for which no fire test data is available. The requirements for proposed Alternate Solution would have to be applied to any such design changes for AHJ approval.

So, the difficult question in this situation becomes:

“Who holds the liability for an approval on a ‘based on...’ design that does not have any listing, certification or supporting documentation such as approval for Alternate Solutions as our Objective-Based Codes require?”

Since 2000, the Supreme Court of Canada decision of *Inglis v. Tutkaluk* is the leading authority on the duty of care owed by municipalities that conduct building inspections in which the Court held that: “municipalities owe a duty of care to all who it is reasonable to conclude might be injured by the negligent exercise of their inspection powers.”¹ ULC can only recommend that Authorities direct this and any other questions of this nature to their legal counsel or representatives.

To Wrap Up

To further summarize a few key points regarding ULC listed Fire Resistance Rated designs and the Handbook:

- Designs are listed as they were tested – with the components that are required listed with the design in the Handbook
- Proprietary materials that are required for the design AND listed cannot be substituted by another component that is not explicitly indicated in the Design
- Those individual components that are proprietary materials and are required to bear a listing mark are always indicated with a • (bullet).
- The ULC Online directory is the most current listing of any design. If a design has been updated, or removed – checking online will provide you with the most current listing of that Design

Always remember that construction of the Fire Resistant Rated Design must duplicate the illustrated design and the details included in the associated test in order to achieve the indicated fire resistance rating.

Resources to help

To assist with finding and reviewing ULC listed Fire Resistance Rated designs online – ULC has provided several avenues for support of AHJs, Designers and any member of the public. First, we have all of the designs listed online at the links below..

ULC Online Directory

<http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/index.html>

ULC Online Fire Resistance Directory

<http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/gothernbr.html>

UL Online Directory (for US listed designs)

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.html>

Second, all of our publications can be purchased at our online store,

ULC Online Store – Fire Resistance Handbook, Standards, Publications

<https://smp.gilmore.ca/RunCmd?cmd=UserLoginCmd&custId=871&userId=ccuser&password=ulcanada>

And finally, ULC Supports Canadian Authorities Having Jurisdiction (AHJs) by providing technical support and standards interpretation. ULC's Regulatory Services Department staff provides unmatched installation code support. Our Regulatory Services staff members are former regulatory officials — they know and understand your concerns. This means we can quickly resolve code enforcement issues related to installations of cUL and ULC certified products. Read more about our team at <http://www.ul.com/canada/eng/pages/codeauthorities/> or contact us at 1-866-937-3852 or the numbers below.

Frank Donati,

ULC Senior Regulatory Representative

Telephone: 613-751-3404

Toll Free: 1-800-595-9844 Press 1, then 4

Email: Frank.Donati@ul.com

Pierre McDonald,

ULC Senior Regulatory Representative

Telephone: 780-419-3202

Toll Free: 1-800-595-9844 Press 1, then 4

Email: Pierre.McDonald@ul.com

* the subject of the UL Fire Resistance Designs are not covered in this article.

¹ Ingles v. Tutkaluk Construction Ltd., [2000] 1 S.C.R. 298, para. 23

CFSA Scholarships

As a non-profit organization, our objectives are to promote fire safety through the use of seminars, safety training courses, newsletters and scholarships. We annually recognize Students for their achievements in the fire and life safety education area through our scholarship program.

In previous years the CFSA has been able to present approximately 10 students annually (who are enrolled in a Fire Protection Technology Course) at a Canadian College or University with one of the following Scholarship Awards and is actively looking for the opportunity to recognize others.

We continuously look for Individual or Corporate members that would like to support the CFSA Scholarship program. Should you be interested in contributing to the CFSA Scholarship fund or initiating a Corporate Scholarship please contact our membership Chair at cfsa@taylorenterprises.com.

The “Secret Sauce” in Mass Notification Systems

Taken from the Article by Jason Falbo, P.Eng, M.B.A for FSAI India.

Part 3 of 3:

Scope of UL Subject 2572...

“Requirements cover discrete electrical control units, communication units, distributed recipient mass notification control units and dedicated targeted individual receiving equipment, high power speaker arrays, transport products which manipulate the data packets, and accessories for mass notification systems to be employed in accordance with the National Fire Alarm Code, NFPA 72.”

Currently, only four manufacturers have systems that meet the criteria outlined above and therefore can be relied upon to offer the most robust, reliable protection and notification for mass notification applications. The four manufacturers are Mircom, Cooper-Wheelock, Edwards, and Siemens. Clearly, it is important when choosing a mass notification system that you question whether others who claim they are “mass notification ready” really are reliable when an emergency happens. Will they work according to the industry’s best practices, and have they proven that ability with independent testing performed by a 3rd party such as UL?

Mircom is the most recent of these manufacturers to develop a compliant system. Mircom is often considered a junior in the industry, however, with 20 years of experience in life safety design, a focused executive team, and concentration on life safety, code compliance, and cost effective solutions, we feel we are up for the challenge of any project. We are actively involved in promotion of the UL 2572 standard because like you, we expect more from our industry. We are pushing our design teams internally to think differently about our products. The goal is to design and produce what is possible, not only what is already available. We rely on our creativity and unique position as the only manufacturer in Canada to borrow from the experiences across a wide variety of installations in cities, rural areas, military bases, hospitals, industrial parks and much more to constantly improve our offerings to the public.

Mircom has only one design team. The design team is collocated under one roof at our corporate headquarters and we share ideas, constantly prototype new designs, encourage innovation, and pull together resources from some of the top universities and researchers in the country to offer the premier products in the life safety industry.

The Mircom Mass Notification Solution built relied on proven hardware and software from our Flex-Net™ platform, and added features for mass notification based on interviews with customers, code consultants, specifying engineers and especially the regulatory bodies to develop a reliable mass notification solution.

We found our aggressive goal of being an early adopter of the UL 2572 standard properly stressed our solution and allowed us to rethink our design at points in the name of reliability and especially for ease-of-use, and flexibility, in project design.

System Components In-Building Mass Notification Systems

“In-Building” components generally refer to systems that communicate within the perimeter of a protected facility. The most common of these technologies are fire alarm control panels that have been retrofitted to meet the UL 2572 mass notification equipment standard and new peripherals to support advanced messaging.

- Fire voice speakers
- Flat panel displays
- LED displays
- PA / Intercom
- Network PCs
- Phone Systems
- Wired and wireless buttons
- Indoor camera systems

Wide Area Mass Notification Systems

“Wide Area” components are generally installed outside the perimeter of a protected facility. The goal is to keep those nearby an event out of immediate danger and to coordinate activities of first responders on site. University Campus, large governmental facilities and military bases are very common areas for these systems.

- Sirens
- Outdoor PA systems
- High-power speaker array “Giant Voice” systems
- Outdoor strobes
- Electronic signage
- Emergency call stations
- Outdoor camera systems

Distributed Recipient Mass Notification Systems (DRMNS)

“Distributed Recipient” Mass Notification Systems may reach both the interior and the exterior of a protected facility, however, the goal is to provide personalized messaging to an individual that has been registered in a database to receive events in case of emergency.

Some more recent technologies will actually use public cellular networks to locate individuals within a certain geographic area of an emergency (i.e. within 5km of the site).

- Pagers
- Cell phones / Smart phones
- Personal E-mails
- IM (Instant Message) Alerts
- Duress Alarms
- Hand-held Radios
- Mass dialing systems
- Computer pop-ups

Main Features and Components of Mass Notification Systems

According to NFPA 72 – 2010 – Chapter 24 Section 24.4.2.1.2. An in-building mass notification system shall include one or more of the following components:

- (1) Autonomous Control Unit (ACU).
 - ACUs must monitor and display status of all LOCs attached in a mass notification system
 - Provide essential system display and local messaging
 - Must maintain signal status for MNS Alarms, MNS Supervisory, MNS Trouble events
 - Must provide distinctively different annunciation vs. fire signals
- (2) Local Operating Console (LOC)
 - Requires a “has control”/”in-use” indicator
 - Must provide other LOC lock-out when in-use and multiple LOCs are connected on a common ACU
 - Provide indication of which LOC/ACU is in use if system is busy or access is denied
- (3) Fire Alarm Control Interface
 - Must display events by priority
 - Requires segmented Fire and MNS queues to display the number and details of waiting events
 - Viewing of the display must not disrupt system operation
- (4) Notification Appliance Network
 - Must provide distinctive notification for Fire and MNS events
 - Usually notification appliances are shared between both the fire alarm and mass notification system and access to including priority control of the appliances should be coordinated by operating system of the MNS controller

(5) Initiating Devices

- Can be a mixture of fire alarm initiating devices such as manual stations or gas detectors, but additionally these initiating devices can be items dedicated to mass notification such as break glass sensors, access control inputs for secured doors, and/or video camera based intrusion detection systems, etc...

(6) *Interface to other systems and alerting sources (wide area mass notification, distributed recipient mass notification, and regional and national alerting)

Testing of Combination Fire Detection/Mass Notification Systems

Sample Test:

Goal:

To maintain priorities of input events and manage them according to the emergency response plan of the facility

Description:

The combined systems should track events of all priorities and adjust notification based on the highest priority input that is active in the system.

Assumption:

A mass notification event has been programmed to have a higher priority than a fire input event.

1. Activate a low priority (fire) input

Observations: All correlated notification for the fire alarm system should activate. This could include speaker circuits shared between the fire alarm and mass notification system.

2. Activate a higher priority (MNS) input

Observations: Activation of the higher priority MNS input should override the fire evacuation tone with a pre-recorded message relating to the mass notification emergency type (terrorist, weather, other).

3. Resetting the higher priority (MNS) input should return notification appliances to their previous state of playing the fire evacuation tone

Observations: Once the MNS input has been cleared and the system is reset, the mass notification dedicated displays should return to normal while the fire dedicated displays maintain the previously un-cleared alarm and any shared speaker circuits restore fire evacuation tones

Emergency Response Plan Elements

According to NFPA 72 – 2010- Chapter 24 Section 24.4.2.3

The Emergency response plan should include, but not be limited to, the following elements:

1. Emergency response team structure
2. Emergency response procedures as follows:
 - a. Building system related emergencies
 - b. Human-related emergencies
 - c. Terrorism Related emergencies
 - d. Weather-related emergencies
3. Emergency response equipment and operations
4. Emergency response notification as follows:
 - a. Emergency Message Content
 - b. Emergency notification approval process
 - c. Emergency notification initiation process
5. Emergency response training and drills, as follows:
 - a. Classroom training
 - b. Table-Top training
 - c. Live drills

Testability, Programmability, Maintainability, Extensibility

Mass Notification systems need to be flexible for the system environments they are used in. Many options should be available to the end user to ensure the system performs as expected and for its intended use.

A configuration utility should minimally allow for the following settings:

- Ability to correlate system status' and inputs to various indicators, notification appliances and/or messaging mediums
- Ability to determine priority of the paging inputs from the LOCs and ACUs
- Ability to determine priority of the live paging (local or remote) vs. the pre-programmed digital messages
- Ability to program the priority of non-emergency signals
- Ability to quickly edit and test job changes, and an intuitive user interface

The mass notification system, like the fire alarm system, should be monitored daily for faults and tested monthly and verified annually for proper system operation by trained and authorized personnel. A system should be selected such that the manufacturer has multiple authorized technicians that can assist with system commissioning and maintenance such that the facility manager always has cost-effective options to keep their emergency communication system in good working order. Systems should be chosen in addition based on the expertise and experience of the manufacturer and distributor/installer of the system.



Mircom and our MircomES offices are happy to help with any project questions. We're here to help you create and deliver your mass notification solutions. For any further inquiries, contact us at www.mircomgroup.com

About the Author

Jason Falbo, P.Eng, M.B.A., is a professional engineer in Canada and the Vice-President, Engineering, at The Mircom Group of Companies. Jason has a background in Software Engineering and extensive experience in system interoperability, web-based technologies, and various standards for information/data exchange.

Prior to joining Mircom, Jason was heavily involved in the xml-based HL7 standard for electronic health records interchange which will soon transform our hospital networks and provide advance care and accurate patient information to a global network of practitioners.

At Mircom, Jason is responsible for overall R&D, Product Development, Engineering Management and Business Development for the privately-owned family run company.

About The Mircom Group of Companies

<http://www.themircomgroup.com>

The Mircom Group (MGCTM) brings a truly global perspective to the design, manufacture and application of advanced Fire Alarm, Communications and Security systems, devices and accessory products.

Multiple MGCTM product brands, including MircomTM, SecutronTM, and SummitTM allow our company to tailor solutions that address the unique needs of diverse marketing channels, including engineered systems distributors, electrical contractors, system integrators and fire alarm companies.

MGCTM service brands allow us to support the needs of our customers beyond the limits of simple product delivery. Mircom Engineered SystemsTM delivers the highest level of sales and project support while also offering industry-leading field service over the life of the systems we manufacture.

Together, the corporate capabilities of MGCTM encompass the complete spectrum of supply and support and offer our customers a whole new world of life safety and property protection.

Vulnerable Occupancies an opportunity for building and fire officials to improve fire safety

By Susan Clarke, P.Eng., MBA

Fire Protection Engineer

Office of the Fire Marshal and Emergency Management

On January 1, 2014 regulatory amendments related to vulnerable occupancies came into force in both the Ontario Building and Fire Codes. This was a joint effort of the Ministry of Municipal Affairs and Housing (Buildings Branch) and the Ministry of Community Safety and Correctional Services (Office of the Fire Marshal and Emergency Management) to ensure that all buildings in Ontario, new or existing, housing vulnerable occupants met an enhanced level of fire safety.

Background

Over the last 25 years there have been a number of significant fires in occupancies housing vulnerable persons. Coroner's Inquests in 1996, 1999 and 2012 examined the circumstances and generated a number of recommendations to amend the Building and Fire Codes to enhance fire safety features in buildings housing these occupancies, including the installation of automatic sprinklers. In 2010, the Ministry of Community Safety and Correctional Services (MCSCS) initiated a public consultation seeking advice on steps that could be taken to improve fire safety in vulnerable occupancies. Key areas identified through the consultation included:

- Enhanced inspections
- Training for operators/owners and staff
- Fire safety retrofits of existing buildings, including the installation of sprinklers

Following this consultation, MCSCS through the OFMEM established a Technical Advisory Committee (TAC). A Committee of 27 stakeholders represented staff from provincial Ministries; provincial associations including the Association of Municipalities of Ontario, the Ontario Building Officials Association (OBOA) and the Ontario Municipal Fire Prevention Officers Association (OMFPOA); professional organizations including the Ontario Association of Architects; and numerous associations representing vulnerable occupancies. The group met regularly to identify the scope of what occupancies would be included as vulnerable occupancies and to discuss changes to improve fire safety. Through a negotiated consensus process, twenty recommendations were developed and an official report was released in January 2013. This report was used as the basis for regulatory amendments to the Building and Fire Codes filed on May 9, 2013.

Scope

The TAC recommended that vulnerable occupancies include the following:

- retirement homes regulated by the Retirement Homes Act
- care occupancies
- care and treatment occupancies

Regulatory Amendments

In both the Building and Fire Codes, it was determined that the definition of a care occupancy should be amended for design and enforcement clarity to read:

Care occupancy means an occupancy in which special care is provided by a facility, directly through its staff or indirectly through another provider, to residents of the facility

(a) who require special care because of cognitive or physical limitations, and

(b) who, as a result of those limitations, would be incapable of evacuating the occupancy, if necessary, without the assistance of another person.

A new definition was also introduced in the Fire Code:

Retirement home means a retirement home regulated under the Retirement Homes Act, 2010, regardless of whether it is a care occupancy or a residential occupancy

Although not introduced as a defined term in the Building Code, specific provisions intended for retirement homes include the phrase "...retirement home regulated under the Retirement Homes Act, 2010" to ensure clarity of application.

Building Code

Other changes to the Building Code (O. Reg. 151/13) include:

- fire safety enhancements for new retirement homes
 - sprinklering (in Part 9 and Part 3 of Division B)
 - signals to the fire department where single stage fire alarm systems are used
 - voice communication, where applicable
- fire safety enhancements for retirement homes where there has been a change of use without construction proposed (Part 10); performance level is reduced if any of the following is not provided:
 - sprinklering of building;
 - voice communication, if applicable;
 - suite/sleeping room doors are not equipped with self-closing devices and deficiencies must be upgraded if change of use is to proceed

Industry News

- fire safety enhancements for retirement homes where construction is proposed (Part 11):
 - Basic Construction – permitted only if proposed construction will be in conformance with the Fire Code:
 - Extensive Renovation – the following requirements must be applied:
 - sprinklering of building
 - voice communication, if applicable:
 - suite/sleeping room doors equipped with self-closing devices
- fire safety enhancements for change of use where construction is proposed (Part 11); performance level is reduced if any of the following is not provided:
 - sprinklering of building:
 - voice communication, if applicable:
 - suite/sleeping room doors are not equipped with self-closing

Fire Code

Changes to the Fire Code (O. Reg. 150/13) are broader, and can be found in three key categories:

- fire safety planning
- fire safety enhancements
- qualifications

Enhancements to fire safety planning requirements include the need for sufficient numbers of trained supervisory staff [building occupants who have some delegated responsibility for the fire safety of other occupants under the fire safety plan] to carry out duties described in the fire safety plan. An annual fire drill representing the lowest staffing level complement is to be carried out and observed by the Chief Fire Official, to validate that adequate staffing is provided to carry out all duties in the fire safety plan including evacuation of the occupants within the fire zone.

This requirement has been further supported by additional Regulations and Fire Marshal's directives to include mandatory annual fire inspection of vulnerable occupancies based on a standardized checklist, and establishment of a registry of vulnerable occupancies.

Fire safety enhancements include changes to Section 9.4, Division B for mandatory sprinklering of licensed health care facilities such as long-term care homes and homes for special care that are care and treatment occupancies or care occupancies. Care facilities, previously regulated in Sections 9.5 or 9.6 as residential occupancies, will now be regulated in Section 9.7, a new retrofit section of the Fire Code which will also regulate retirement homes.

Care facilities, previously regulated in Sections 9.5 or 9.6 as residential occupancies, will now be regulated in Section 9.7, a new retrofit section of the Fire Code which will also regulate retirement homes. Requirements will build on those in Sections 9.5 and 9.6, and include self-closing devices on suite/sleeping room doors, emergency lighting, fire alarm monitoring, notification of sprinkler system activation to fire departments, suite/sleeping room smoke alarms, voice...

communication, and sprinklering. The changes include design options and exemptions to reflect small buildings and low occupant load, particularly for sprinkler requirements. As well, the changes incorporate a phased compliance schedule. Qualification requirements apply to anyone with overall responsibility to implement a fire safety plan, and Chief Fire Officials responsible for approving fire safety plans. These "prescribed" persons have to complete a training program/course acceptable to the Fire Marshal.

Building and Fire Officials Working Together

Under the Building Code Act, an owner is responsible for obtaining a permit when new construction, renovations or change of use are proposed. Building permits are also required when construction is undertaken to comply with Fire Code requirements, and to comply with Inspection Orders issued by a fire inspector.

Issues may arise when compliance with the Fire Code or Inspection Orders appears to contradict the Building Code Act and/or the Building Code. If an owner applies for a permit to comply with the Fire Code or an Inspection Order for a care occupancy, an issue may arise if municipal records indicate a different occupancy type and zoning restrictions apply. This would be in contravention of applicable law, as referenced in the Building Code Act. To address this conflict, Sentence 1.3.1.5.(3), Division C of the Building Code states

"for the purposes of issuing a conditional permit under subsection 8(3) of the Act, a person is exempt from the requirement in clause 8(3) of the Act of compliance with by-laws ... where the construction in respect of which the conditional permit is issued is required in order to comply with an order issued under subsection 21(1) of the Fire Protection and Prevention Act, 1997 or under subsection 15.9(4) of the Act."

Issuing a conditional building permit with a requirement to satisfy zoning restrictions is a way to comply with the Fire Code in the short term and zoning in the longer term. It also gives an owner time to revert back to original use if a zoning amendment isn't successful.

Another circumstance that often creates confusion is when compliance with the Fire Code is to a "lesser standard" than required in the Building Code for the same occupancy type and size. This can include fire separation ratings, and sprinkler standards, for example. Retrofit requirements in Part 9 of Division B of the Fire Code apply to existing buildings often where the building or use predates the application of the Building Code. Upgrading of fire safety features may be necessary to comply with the Fire Code. To satisfy this apparent conflict, subsection 22(2) of the Fire Protection and Prevention Act states that "if repairs, alterations or installations are carried out in compliance with an order made under subsection 21(1), or for the purposes of complying with the fire code ... shall be deemed not to contravene the building code". This provision effectively provides the building official the basis to issue a building permit without having to enforce Building Code standards.

There is merit in local building and fire officials working together to properly address the safety of vulnerable occupancies by determining occupancy type, and identifying which code application prevails when there is an apparent change of use. A written policy may help to determine roles and responsibilities for different scenarios, to ensure appropriate compliance is achieved. Another opportunity for enhancing public safety is for building and fire officials to take advantage of training opportunities provided by the OBOA and the OMFPOA, to gain an enhanced understanding of the two companion Acts and Regulations.

Ongoing projects

To address other recommendations made by the TAC, two implementation committees were formed. The “Registry and Inspection Working Group” provided input on the development of regulatory requirements that mandate annual inspections of vulnerable occupancies by fire departments. A registry of all vulnerable occupancies, intended to be updated following the mandatory annual, is also part of this initiative. One important step in updating the registry will be to confirm the occupancy type of a facility. It is at this point that interaction between building and fire officials may be necessary – to ensure that all municipal records accurately reflect the use of the building, the dates of any changes, and that appropriate building permits were obtained.

It is intended that the fire department will enter information into the registry when a facility owner contacts the fire department for an annual inspection. Some fire departments are taking a proactive approach to populate the registry by initiating contact with facility owners to advise them of their responsibility to undertake an annual fire drill. The drill must be a scenario that represents the lowest staffing level complement for the facility. Before this fire drill is undertaken, the scenario must be approved by the Chief Fire Official. In addition to observing the fire drill, the fire department will also undertake a mandatory inspection. As this is an annual requirement, the initial fire drill observations and inspections should be completed before the end of 2014. “Utilizing local building department records to assist in identifying/locating vulnerable occupancies could prove to be one option that expedites the process, thus saving time and resources” (Mike Seiling, OBOA President)

The “Training Advisory Committee”, a second committee established to continue implementation of the TAC committee, continues with its work to guide the development and delivery of training programs for owners/operators and supervisory staff of vulnerable occupancies and Chief Fire Officials who review and approve fire safety plans for vulnerable occupancies. This work is almost complete, and both online and in-class courses will soon be available for the “prescribed persons” to meet their mandatory qualification by January 1, 2017. A web portal has been created on the OFMEM website, titled “Care Occupancies, Care and Treatment Occupancies and Retirement Homes” to provide a single point of access to key information and resources, including links to regulations, directives, guidelines, fact sheets, and Q & As. This will be...

of use to building and fire officials, facility owner/operators, and the public

Outcome

The vulnerable occupancy initiative created an opportunity for Ministries including MMAH and MCSCS; and Associations including OBOA and OMFPOA, to work together as partners to achieve common goals to address fire safety in vulnerable occupancies. Ultimately, across Ontario, occupant safety will be improved in both new and existing facilities.

Important fire safety tips during power outages!

To reduce fire risk during a power outage, the Office of the Fire Marshal offers the following safety tips:

- Electrically-connected smoke alarms and carbon monoxide alarms will not work when the power is out unless they have battery back-ups. Make sure your home has battery-operated smoke alarms and carbon monoxide alarms.
- Everyone should know how to get out immediately if there is a fire. Plan and practice your escape plan before emergencies happen.
- Use flashlights or battery-operated lanterns instead of candles or hurricane lamps. If using candles, place them in a secure holder and cover them with a glass chimney, away from children and pets.
- Propane and charcoal barbecues are for outdoor use only. Do not bring them inside.
- Purchase generators with recognized approval labels. Make sure the unit has proper connection receptacles and circuit breakers.
- Portable generators should only be used outdoors and carefully located to ensure that exhaust fumes do not enter the home. Allow the generator to cool before refuelling. Refuel the generator outside, following the manufacturer’s instructions. Store fuel for the generator in approved containers, outside the home.
- Use only portable space heaters that have been designed for indoor use and follow the manufacturer’s instructions. Provide adequate ventilation by opening a window slightly while the heater is in use. Before refueling, turn off the heater, wait for it to cool and take the heater outside to refuel.
- Make sure electric stove elements and small appliances are OFF or unplugged to prevent fires from occurring when the electricity is restored.
- Cordless phones will not work when the power is out, so it is recommended to have at least one phone that does not require electricity to operate.
- Use extreme caution during flood emergencies and power outages. Electrical equipment impacted by flood water can be extremely dangerous. For more important information about electrical safety during floods, please visit the Electrical Safety Authority’s website: www.esasafe.com/
- Further information on emergency preparedness can be found at www.emergencymanagementontario.ca/english/home.html.

Dual it yourself.

Cut costs, speed installation, and improve aesthetics on your emergency communication applications by combining the functions of two to three devices on a single mounting plate and back box.

SpectrAlert® Advance Amber Lens Expander Plates for Strobes and Speaker Strobes provide dual strobe or speaker strobe functionality that's easy for a single person to wire and install.

Learn more at systemsensor.ca

Réduit les coûts, facilite l'installation et améliore l'esthétique pour les applications de communications d'urgence, en regroupant les fonctions de deux ou trois appareils sur une même plaque de montage et boîte arrière.

Les plaques d'extension SpectrAlert Advance permettent de disposer des fonctions de deux stroboscopes et d'un haut-parleur et peuvent facilement être raccordées et installées par une seule personne.

En savoir plus au www.systemsensor.ca



advanced ideas. advanced solutions.™

8 0 0 / 7 3 6 - 7 6 7 2
www.systemsensor.ca





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

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

2014 Membership Fees

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

2175 Sheppard Ave. E., Suite 310, Toronto, ON M2J 1W8
Telephone (416) 492-9417 Fax (416) 491-1670

Corporate Members

Aon Fire Protection Engineering

Mike Norris
Lui Tai
Toronto, ON
(416) 229-7213

Atomic Energy of Canada Limited

Allison McLean
Gerry Johnston
Shahina Kurien
Chalk River, ON
(613) 584-3311

Barrie Fire & Emergency Service

Tracy Stevenson
Judith A. Myddelton
Samantha Hoffman
Barrie, ON
(705) 739-3199

Brampton Fire & Emergency Services

Chantelle Cosgrove
Andy MacDonald
Brian Maltby
Brampton, ON
(905) 874-2741

Carlton Fire Equipment Limited

Mike Phillips
Markham, ON
(905) 294-5400

City of Markham

John Wright
Chris Bird
Tony Boyko
Markham, ON
(905) 477-7000

City of Markham, Building Standards Department

Tim Moore
Markham, ON
(905) 475-4719

City of Toronto, City Hall, East Tower

John Humphries
Toronto, ON
(416) 392-2690

D. Goodyear Fire Consulting

Dave Goodyear
Oakville, ON
(905) 815-9293

Durabond Products Ltd

Guido Rapone
Toronto, ON
(416) 759-4474

Electrical Safety Authority

Scott Saint
Mississauga, ON
(905) 712-5363

FCS Fire Consulting Services

Ari Finewax
Nathan Breton
Trisha Ashworth
Innisfil, ON
(800) 281-8863

Fire Detection Devices Limited

Patricia Duggan
Gordon Duggan
David Duggan
Markham, ON
(905) 479-7116

Fire Monitoring of Canada Inc.

Chad Asselstine
Kevin Allison
Jim Asselstine
St. Catharines, ON
(800) 263-2534

Firetronics 2000 Inc.

David Morris
Peter Teolis
Markham, ON
(905) 470-7723

Greater Toronto Airports Authority

Frank Lafond
Dwayne MacIntosh
Toronto, ON
(416) 776-5170

Halsall Associates Limited

Daniel S. Templeton
Toronto, ON
(416) 644-2896

Harding Fire Protection

Grant Petre
Jennifer Gourley
Toronto, ON
(416) 292-0599

Independent Plumbing & Heating Contractors Association

Mauro Angeloni
Toronto, ON
(416) 248-6213

Leber-Rubes Inc.

Eric Esselink
Michael Devine
Fred Leber
Toronto, ON
(416) 515-9331

Ministry of Municipal Affairs and Housing

Nadim Khan
John Gryffyn
Ben Pucci
Toronto, ON
(416) 585-6456

Morrison Hershfield Limited

Judy Jeske
Daniel Dixon
Demir Delen
Toronto, ON
(416) 499-3110

Nadine International Inc.

Ajwad Gebara
Mississauga, ON
(905) 602-1850

National Research Council

Philip Rizcallah
Ottawa, ON
(613) 993-4064

Oakville Fire Department

Gary Laframboise
Jonathan O'Neil
Andrew Pouse
Oakville, ON
(905) 815-2008

Office of the Fire Marshal

Barney Owens
Bev Gilbert
Susan Clarke
Toronto, ON
(416) 325-3100

OFS Fire Prevention

Jeff Ough
Barrie, ON
(705) 728-5289

Pentair Thermal Management

Rick Florio
Woodbridge, ON
(905) 553-1836

Professional Loss Control

Heather Gutowski
Larry Keeping
Daniel Wu
Ghaith Qamheiah
Mississauga, ON
(905) 949-2755

Pro-Firestop

John Sharpe
Toronto, ON
(416) 293-0993

Randal Brown & Associates Engineering Ltd.

Matteo Gilfillan
David Vickers
Randal Brown
Toronto, ON
(416) 492-5886

Richardson Fire Systems Inc.

Jean Howitt
Jacob Russell
Cambridge, ON
(519) 650-8057

Secur Fire Protection

John Lemay
Bernard Seguin
Catherine Chandler
Ottawa, ON
(613) 744-0722

Seneca College of Applied Arts

Derek Gruchy
Scott Pugsley
Anthony Van Odyk
Toronto, ON
(416) 491-5050

Siemens Building Technologies

Manuel Lopes
Jason Baycroft
Don Boynowski
Brampton, ON
(905) 799-9937

System Sensor Canada

Stephen Ames
Bob Nagy
Mississauga, ON
(905) 812-0772

Toronto Fire Services

Bill Stewart
James Stoops
Toronto, ON
(416) 338-9102

Toronto Transit Commission

Ryan Duggan
Toronto, ON
(416) 393-3020

Town of Richmond Hill

Mike Janotta
Richmond Hill, ON
(905) 771-8800

Underwriters Laboratories of Canada

Sandy Leva
Toronto, ON
(416) 757-5250

Vaughan Fire & Rescue Services

Gary Fraser
Vaughan, ON
(905) 832-8585

Simplex Grinnell

Harold Gomes
Mississauga, ON
(905) 212-4600

University of Waterloo

Chris Pringle
Waterloo, ON
(519) 888-4567

Standard Updates

Standards Bulletin 2013-18

Second Edition CAN/ULC-S134-13, Standard Method of Fire Test of Exterior Wall Assemblies.

ULC announced the publication of this Second Edition in August 2013. This new edition provides further clarification on the point of termination of the test and includes the addition of acceptance criteria in accordance to the requirements in the National Building Code of Canada.

Standards Bulletin 2013-25

Fifth Edition CAN/ULC-S537-13, Standard for Verification of Fire Alarm Systems.

ULC announced the publication of the Fifth Edition in October 2013. CAN/ULC-S537 is currently referenced in the National Building Code of Canada

Standards Bulletin 2013-29

Interim Changes to Second Edition of ULC-S545-02, Standard for Residential Fire Warning System Control Units.

Announced in December 2013, the update is to align certain provisions of the ULC-S545-02 as closely as practicable with CAN/ULC-S527-11, Standard for Control Units for Fire Alarm System, where the standards meet the same intent.

This planned interim change was effective immediately at the time of issue until the date of publication of the Third Edition of CAN/ULC-S545 as a National Standard of Canada which has been scheduled into the 2014 work program.

Standards Bulletin 2013-31

Reaffirmation to the Fourth Edition of CAN/ULC-S508, Standard for the Rating and Fire Testing of Fire Extinguishers.

Reaffirmed in December 2013, this includes Amendments 1 through 3 and some editorial changes and clarifications.

Standards Bulletin 2014-04

Third Edition of CAN/ULC-S531, Standard on Smoke Alarms.

Published in February 2014, this edition includes such new areas as Automatic Drift Compensation for Smoke Sensing comprising compensation parameters & requirements, alerting methods and sensitivity requirements. There are also provisions for Smoke Alarms to indicate end of life with unique signaling requirement and Reliability Prediction requirements for compliance of Wireless Alarms. The Standard also covers remote accessories that are to be connected.

For further information please visit www.ul.com or contact 1-866-937-3852.

Mark your Calendars!

June 9th – 12th
NFPA Conference and Expo
Las Vegas

April 2nd – 4th
ISC West
Las Vegas

October 22nd – 23rd
CANASA – Security Canada Expo
Toronto

April 2nd
CFSA Annual Education Forum
Woodbridge

December 3rd – 5th
Construct Canada Show
Toronto

**Life.
Assets.
Business Continuity.
Reputation.**



WHY WASTE TIME WITH SO MUCH AT STAKE?

Xtralis is the pioneer and leading manufacturer of air-sampling smoke detection (ASD) solutions. By being alerted to an impending fire at the start, **VESDA detectors** buy time to protect personnel, assets and business continuity.

Xtralis provides a full range of VESDA detector models to protect a wide variety of applications and environments **delivering the custom protection you deserve.**

- » Provides the earliest possible warning of an impending fire
- » First purpose-built detector for industrial applications
- » Smoke detection without compromise
- » Offers consistent, repeatable performance
- » Option for gas detection and environmental monitoring
- » Centralized or remote detector placement for lower TCO

VESDA is recognized as the industry standard by regulators, insurers and customers worldwide.



VESDA[®]
by  **xtralis[™]**

To learn more about VESDA, visit us at www.xtralis.com/vesda or contact us at 800-229-4434 or 781-740-2223.