

# CFSA News

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*Fire Safety is  
Everybody's Business*

## President's Message

I would like to thank you for electing me as President of the Canadian Fire Safety Association. It has been an honour and privilege to serve on the board for the last 6 years and I look forward to the challenge of my new position for the upcoming year.

I would also like to thank all of the Board of Directors for their continued support and efforts on behalf of the CFSA. Also, on behalf of all CFSA Members and the Board of Directors I wish to extend thanks to Jon Winton for his excellent work as President over the last 2 years. Fortunately, we are pleased that Jon will continue on the Board as immediate Past President.

It is with regret that the Board has accepted the resignation of Stu Evans, Seneca's Fire Protection Program Co-ordinator. Stu has been on the board since April 2000 and has been an advocate of Fire Safety, especially in the Education sector.

We wish to welcome Mark Regimbald, Fire Chief of the Greater Toronto Airport Authority as a new CFSA Director. We are sure that he will be a valuable asset to our Association.

The CFSA hosted its Annual Education Forum on April 24, 2002. This event, held for the second time at Seneca College (Newnham Campus), was an great success and an excellent way to conclude our program year. The focus of the day-long seminar was on High-rise Building Fire Safety. Several speakers delivered informative presentations on all aspects of high-rise fire safety ranging from Emergency Management to Progressive Collapse to Fire Alarm and Emergency Voice Communication sys-

tems. A presentation on Toronto's Heavy Urban Search and Rescue (HUSAR) Team was also provided by Chief Alan Speed. NFPA's newly appointed Assisted Vice –President of Building and Life Safety Codes, Robert Solomon delivered a keynote address pertaining to NFPA's response to the September 11, 2001 terrorist attacks. I would like to thank all of our speakers, sponsors, participants and the Forum Committee who all, once again, made the Education Forum a tremendous success.

The mission statement of the CFSA is to disseminate fire and life safety information and create a fire safe environment in Canada. Working toward this, the CFSA Board of Directors has met in early summer in order to begin planning for the fall program year. On a trial basis, our September, October and November Dinner meetings will be altered to a Luncheon format and a new venue (The Toronto Police Association) is slated. Look out for our brochures and e-mails for these sessions. Please feel free to contact any one of the Directors if you have a suggestion for a luncheon meeting or technical session topic. While the Board strives to select balanced and topical program content, it is you that we are serving and your input and constructive feedback is always appreciated.

I look forward to the opportunity to network with all of you, over the next year and wish you a safe and enjoyable summer.

David Johnson C.E.T.  
President



part of your team

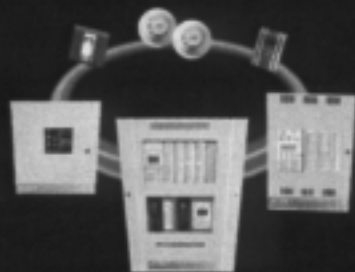
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**Mark Regimbald**

Greater Toronto Airport Authority (905) 676-4515

**CFSA ADMINISTRATOR**

**Sherry Denesha**

2175 Sheppard Avenue East, Suite 310

Toronto, Ontario M2J 1W8

(416) 492-9417

Fax: (416) 491-1670

E-mail: [cfsa@taylorenterprises.com](mailto:cfsa@taylorenterprises.com)

# *A Fire Chief's Prayer*

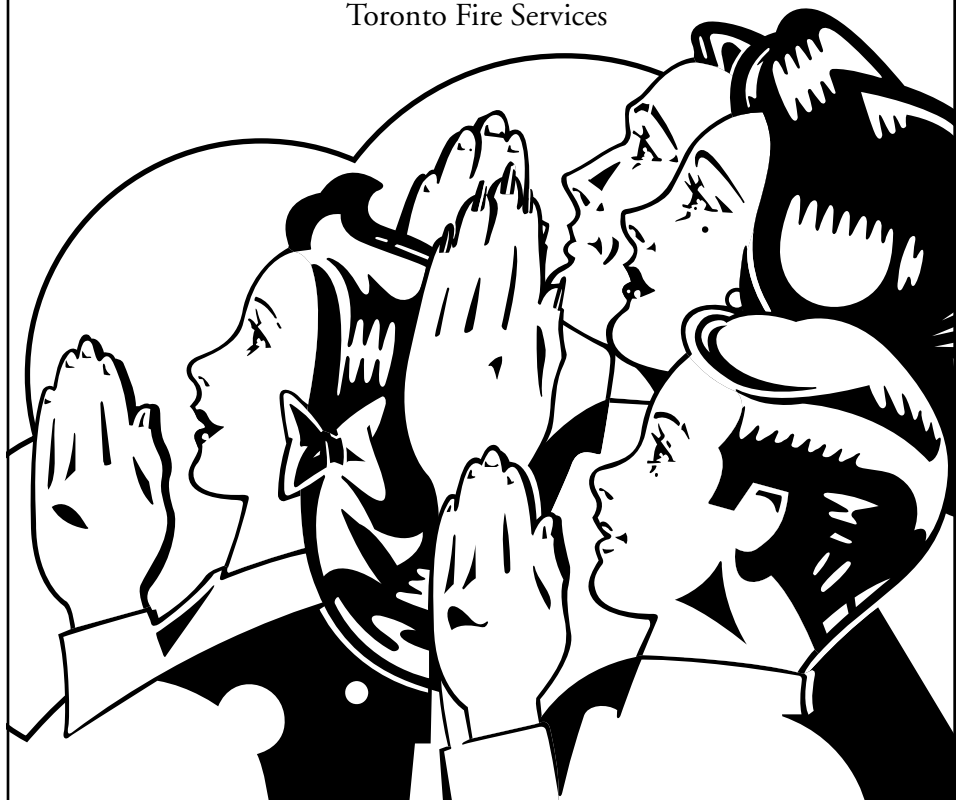
I ask for strength and wisdom, God, to prepare for every day, to be an effective Fire Chief and good mentor along the way. I am required to make decisions with passion and honesty, please keep me true and focused, never to compromise integrity.

Give me the vision I require to implement the plan, to create a safe community for every woman, child and man. I want to understand, with love, the things that others fear, and when the hurting gets too bad, to wipe away each tear.

When I respond and lead the team to mitigate the fire, to know success, and keep all safe, is my genuine desire. There seems too little time with so much knowledge to impart, help me to find a way to share the passion from my heart.

I want to make a difference in this world that we all share, they will not care how much I know until they know how much I care. Help me to leave it better than when the badge was given to me, and when I move aside, give me grace and time, to enjoy the memory.

Alan F. Speed  
Toronto Fire Services



# Highrise Building Fire Safety

CFSA Annual Education Forum and Tradeshow  
April 24, 2002

Since the events of 9-11, building safety has been a key issue on everyone's mind, especially those who work or reside in high-rise buildings. For those of us in the fire protection industry, it is always an issue, regardless of building size.

This year's Annual Education forum was dedicated to high-rise fire safety. Topics presented included high-rise safety issues, progressive structural collapse, Toronto's new HUSAR (Heavy Urban Search and Rescue) team, fire alarm voice communication, property management perspectives regarding high-rise building safety, and emergency management of highrise and high risk buildings.

## High-Rise Safety Issues Robert Solomon, P.E.

*Robert Solomon, from NFPA presented an overview of High-Rise safety issues.*

Robert began his presentation by describing some of the factors or issues that had an impact on the collapse of the World Trade Centre on September 11, 2001. Such factors included aircraft security, building security and design, large mass impact, hydrocarbon fires and multiple ignitions.

High-rise buildings are among the safest type of building when designed to recognized codes and when properly maintained. However, they can also be the most dangerous if that criterion is not met.

Lessons are learned and improvements are made after catastrophic fires or events, such as:

- The Asch Building, NY 1911
- The Ritz Tower, NY 1932
- Hotel Lasalle, Chicago 1946
- Tae Yon Kak Hotel, Seoul 1971

This also includes improvements made to the World Trade Centre stemming from the 1993 bombing.

## Property Management for High-Rise Building Safety, Moshe Wertheim, Ted Alcroft and Tom Watson

*Moshe Wertheim, Ted Alcroft and Tom Watson of O & Y shared their perspective of Property Management within First Canadian Place.*

First Canadian Place is located in the heart of Toronto's business district (King and Bay Street) and is the tallest office tower within Toronto, at 72 stories. The building encompasses a seven-acre block containing shopping, a food court, banking and professional services, medical and dental clinics, spas, fitness club, Toronto Board of Trade, underground parking and offices within.

There are many additional life safety features installed within the building such as a one of a kind fire alarm system that includes an unconventional portable command centre and a modern access control centre, self illuminating signs located half way down the walls and additional cameras installed.

Prevention is also a key issue addressed within First Canadian Place by providing:

- A tenant safety video,
- The Fire Safety Plan and other materials on their website,
- Posted instructions throughout the building,
- Life safety equipment such as: an evac chair, stretchers, wheelchairs, splints and Personal Protection Equipment,
- Response training, such as Hazmat, crisis management, tactical and communication,

To increase safety within the building, First Canadian Place has created new loading dock procedures which includes prescreening of vehicles and verifications of deliveries with the tenant, new parking procedures, additional training to include suspicious packages and the holding of full building evacuations.

## New Realities, Toronto Fire Service's HUSAR Team, Fire Chief Alan Speed

*Fire Chief Alan Speed of the Toronto Fire Services presented information regarding Toronto's new HUSAR team.*

Our world is ever changing with increased population density, aging infrastructure, inclement weather and domestic terrorism. We have recognized the need to improve our chemical and biological response, nuclear response, information gathering, joint emergency management including the addition of a Toronto based HUSAR team.

To date the Toronto Fire Services has confirmed and equipped 35 staff members as part of Toronto's HUSAR team. HUSAR is an acronym for Heavy Urban Search and Rescue.

### The trained staff members:

- Use heavy equipment to remove debris
- Move structural components
- Treat/remove victims
- Secure structures

The Team Management consists of a team leader, safety officer, external and internal li-

aison as well as five vital components: Search, Rescue, Medical, Technical and Logistics.

An old recovered salt barn is used to train staff and is appropriately named the "Rescue Dome". The Rescue Dome consists of confined space simulators, a five-storey tower, an interior collapsed trench simulator, a ravine rescue area, a structural collapse rubble pile, an exterior trench collapse and landslide, an auto extrication area, a subway station simulator and hazmat simulators. Future planned simulators include a tower crane, hazmat rail and tanker cars and swift water & ice rescue pond.

This team will be using some of the latest equipment out such as a snake eye fibre optic search camera, Delsar Acoustic search Listening device, Global Positioning system, canines for search, holmatro power shores and hand power pump, concept breaching and breaching hammer to name a few.

## Fire Alarm and Voice Communications Systems, Ken Baird

*Ken Baird of Leber/Rubes Inc. presented information regarding high-rise fire alarm and voice communications systems.*

In fire alarm life safety systems, high-rise buildings require additional features, which include:

- Display Control Centre (DCC) located in the Central Alarm Control Facility (ACF)
- Emergency voice paging capabilities
- Emergency two way communication
- Fire protection rating for main riser

High-rise buildings are not created equal, yet the Building Code does not differentiate between them regardless of height, occupant load or complexity.

Fire alarm and life safety requirements prescribed in the building code should be used as a minimum only. An appropriate design and additional features and redundancy

should be incorporated based upon the risk involved.

The fire alarm system plays an extremely important role in the life safety of a high-rise building by:

- Detecting fire and providing warning to occupants,
- Initiating response of fire service,
- Provide paging messages to direct and inform occupants,
- Provide alarm details to emergency response team members.

To be effective, the fire alarm system must remain fully operational and effective for the duration of any alarm event.

## Progressive Collapse Provisions for the Design of High-Rise Structures, Barry Charnish, P. Eng.

*Barry Charnish of Yolles Partnership Inc. presented progressive provisions for the design of high-rise structures.*

In some high-rise buildings such as the former World Trade Centre in New York and First Canadian Place in Toronto, extra columns were installed to create redundancy and allow for the removal of a column without structural failure.

The exterior of any building takes the lateral forces such as wind, etc. A large airplane represents 90% to 95% of the maximum wind force designed for a building.

Each building regulating authority develops their own standards or requirements for all buildings including high-rise, based on factors affecting their area and past experiences. For example:

- Israel Secure Area Design – requires a bomb shelter on each floor with its own air conditioning.
- German Smoke Compartment Design – requires areas on stairs capable of holding 2 wheel chairs.
- Chinese Code Refuge Design – requires one floor of refuge
- Russia Perimeter Stair Location – requires stairs to be located on the outside of the building.
- British Tie Force Design and Key Element Design – increased exit widths, eliminated the use of scissors stairs and parking below the tower, use of entry security and board fireproofing.

Mr. Charnish summed up his presentation with many detailed structural photos taken three days after the World Trade Centre event in New York.

## Emergency Management of High-Rise and High-Rise Risk Buildings, Ed Gulbinas, P.Eng.

*Ed Gulbinas of the Office of the Ontario Fire Marshal presented emergency management of high-rise and high-risk buildings.*

The Solicitor General requested that the Office of the Ontario Fire Marshal (OFM) to provide guidance to building owners to strength their emergency procedures for high-rise and high-risk structures.

In order to provide guidance, the OFM first needed to approach their target audience (building owners) and identify the needs and products required. From there, they received input from Consultants in the Government, Fire & Emergency Procedures, building owners and insurers.

The Guide is composed of seven sections:

- Purpose and Scope,
- Background,
- Building Vulnerability Assessment,
- Security Measures,
- Develop Emergency Plan

- Emergency Measures Due To Human Act
- Emergency Measure Due to Natural Disasters.

The human activities section consists of fire/explosions, bomb threats, biological and chemical threats, suspicious packages/devices, physical threats, hazardous materials, radiological accidents, CO, natural gas leaks, elevator malfunctions and medical emergency. The natural disasters section consists of Earthquakes, Severe Storms, Floods, major electrical power failures and roof collapse.

Sample procedures for offices, high-rise buildings, shopping centers, stadium/arenas, industrial buildings, warehouses and stages (theatre) are available from their website [www.ofm.ca](http://www.ofm.ca).

## In closing...

We would like to thank all the speakers who participated in this years Annual Education Forum for their exceptionally knowledgeable and educational presentations, as well as for their time and dedication.

We would also like to thank everyone who attended and hope this years forum was well received. If there are any comments or suggestions regarding this years Annual Education Forum and Tradeshow, please submit your comments to [cfsa@taylorenterprises.com](mailto:cfsa@taylorenterprises.com).

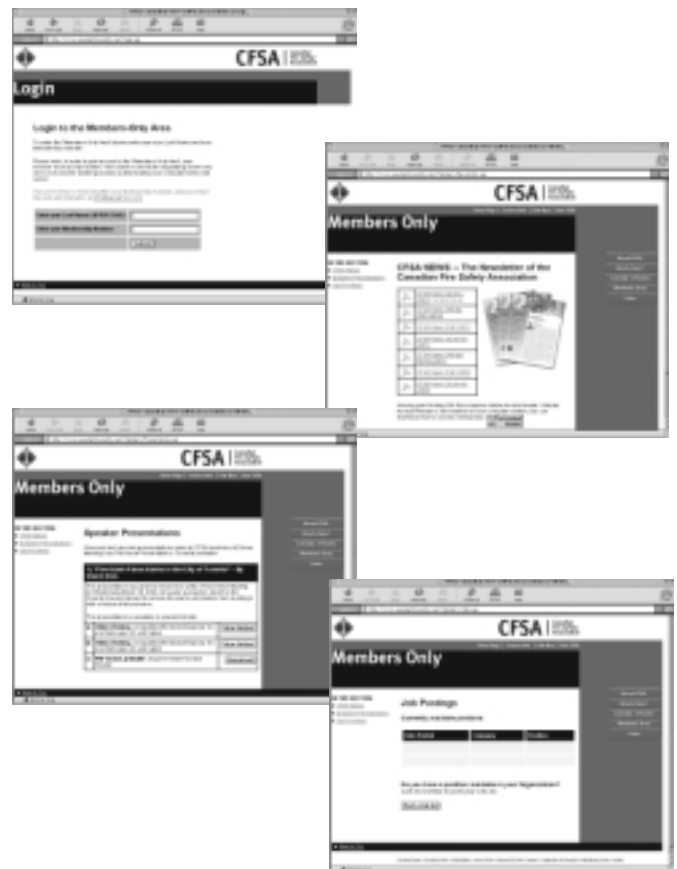
# New!

## Membership has its Benefits!

The Canadian Fire Safety Association is proud to announce the new Members Only Area on our website.

Members can now read or download current and past issues of the CFSA quarterly newsletter, view speaker presentations from past dinner meetings and technical presentations and post job openings (currently FREE OF CHARGE!)

If you are currently a member and do not know your Membership number please email [info@lsgraphics.com](mailto:info@lsgraphics.com). If you are not currently a member, what better way to keep abreast of current issues within the industry than by joining the Canadian Fire Safety Association?



# Fire Simulation

(CFSA February Dinner) Speaker Chris Williams

*On February 20, 2002, Chris Williams, a fire investigator for the Office of the Fire Marshall, addressed the Canadian Fire Safety Association on the topic of 'Fire Simulation'. This summary was graciously provided by both CFSA Board Members Alan Kennedy and Janet O'Carroll, members of Leber/Rubes Inc's, Emergency Planning Group.*



On March 25, 2001 at approximately 6:57 a.m. the Camp Borden Fire Department received a call regarding a house fire on the base. The fire department arrived in 2 minutes and 59 seconds of the call, only to find the house fully involved and venting from the main floor doors and windows.

Two adults and their three year old child managed to escape the fire, however their five year old son Brendan did not. The fire department's initial search of the house for Brendan was unsuccessful and they later found him on his parent's bed, covered by drywall.

Brendan had gone into his parent's room and alerted them of the fire; the same time the 2nd floor smoke detector sounded. The mother went to the three year old's room and lifted the child out of bed and the stepfather grabbed Brendan's hand and they all went down the stairs. As they were reaching the

ground floor, they noticed that the flames were licking the ceiling and upon opening the front door to exit the house, flashover occurred. Everyone made it outside the house except for Brendan who went missing somewhere between the bedroom and the front door.

The parent's story as to the cause of the fire was that the mother had seen flames coming from the toaster, however the investigations lead by the Office of the Fire Marshall told another story. The heat and smoke patterns lead to the area of origin at the computer alcove in the living room, where they found a BIC lighter and two candles. There was a wicker chair draped in clothing adjacent to the computer, which was ignited by open flame and the surrounding walls were layered with paint (10 to 12 layers). The fire department also found an empty gas can located beside the front door.

Since the information obtained by the Office of the Fire Marshall and the story told by the parents were not compatible and the disappearance of their son, the Ontario Provincial Police requested to recreate the events of the fire. As such, they invited the Ontario Fire Marshall's office, military police, military base engineers, the Camp Borden Fire Department, the Canadian Forces Fire Marshall and the Centre of Forensic Science to attend.

The simulation was performed in the adjoining house (which had a similar layout to the original) using similar furnishings. Four cameras were placed throughout the house, one outside and three inside in order to create a timeline of events during the fire. Two smoke detectors, an ionization and a photoelectric type were installed above the wicker chair and one ionization detector was installed on the 2nd floor. There were also 14 heat sensors and 1 gas analyzer installed throughout the house.

The simulation fire was started in the wicker chair in the living room alcove. At 43 seconds after the fire was started, the ionization smoke detector sounded and 17 seconds later, 60 seconds into the fire, the photoelectric detector sounded. The 2nd floor ionization smoke detector sounded at 1 minute 21 seconds into the fire and at 1 minute 57 seconds the front door was opened at which time flashover occurred. After 3 minutes the house was engulfed in flames.

By recreating such a scenario the Office of the Fire Marshall was able to test their hypothesis and time lines for the actual event and test the difference between ionization and photoelectric smoke detectors.

We would like to thank Chris Williams for his insight and knowledge into the events of this tragic fire as well as an analysis of the simulated fire.

# OFM Emergency Building Measures

Recently, the Office of the Ontario Fire Marshal released their "Guide to Strengthen Emergency Management of High-Rise and High-Risk Buildings".

The guide was developed to help building owners and operators of large and high-risk buildings, improve occupant safety and security.

Building owners can access their website (<http://www.ofmem.ca/>) and download sample emergency procedures, by answering a series of questions in context to their building which will produce a set of sample emergency instructions. Building owners and others can also participate in a discussion forum where questions can be posted and are answered by engineers within the Office of the Ontario Fire Marshal.

# NFPA Announces Exciting Changes

*The National Fire Protection Association (NFPA) has seen some exciting changes within the last few months and the following announcements are just a few that can be obtained from [www.nfpa.org](http://www.nfpa.org).*

## **James M. Shannon elected President and CEO of NFPA**

James M. Shannon was unanimously elected by NFPA as their president and chief executive officer, effective June 1, 2002.

Shannon has served as NFPA Senior Vice President and general counsel since 1991, and succeeds George D. Miller, who will retire from NFPA after 10 years of service.

## **White Paper of Post Fire Analysis – Now Available**

A white paper on post fire analysis has been issued by the Research Advisory Council on Post Fire Analysis of NFPA's Fire Protection Research Foundation.

The paper reviews that status of the techniques and knowledge base of post fire in-

vestigations and presents recommendations addressing the research and development needs identified by the council consisting of 14 members from industry, research, insurance, government and fire services.

The white paper is available in hard copy by contacting the Research Foundation at: (617) 984-7283 or in .pdf format by logging on to NFPA's website at: [www.nfpa.org](http://www.nfpa.org).

## **Sparky the FireDog®**

On February 22, 2002, NFPA unveiled an improved and rejuvenated website for their safety mascot Sparky the FireDog®, who turned the half century mark.

Learn more about the website by visiting it at [www.sparky.com](http://www.sparky.com).



# Fireworks Safety First

On Canada day, everyone loves a fireworks display, especially children. Follow these 'at home' firework safety tips, for a fun and safe holiday fireworks display:

- Watch from a safe distance and never let children light fireworks!
- Always read instructions
- Before igniting fireworks, place firmly in a bucket of sand/dirt or directly into the ground.
- Always have a garden hose ready!
- Light fireworks at arms length and never relight those that fail.
- Douse sparklers with water or cool in a safe location.
- Keep fireworks out of reach of children.
- Return all unused fireworks...as they are only permitted on holidays!

*This information was supplied by the Toronto Fire Services website [www.city.toronto.on.ca/fire](http://www.city.toronto.on.ca/fire)*



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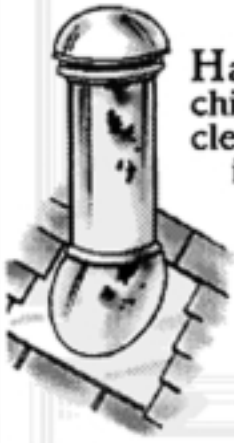
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School of Mechanical & Fire Protection  
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# Congratulations to our Scholarship Winners



## **Algonquin College**

Gregoire Billette

## **Lambton College**

Michael Bamvury

## **Seneca College**

Jeff Murray

Patrick Leach

Russ McRae

Kim Trinh

Welcome to the following

# New Members



## Corporate

City of Toronto – Hostel Service

## Individual

### **Brad Swainsbury**

City of Burlington

### **Joyanne Beckett**

Locke Mackinnon Domingo  
Gibson & Associates

### **Ken Harris**

Office of the Fire Marshall

### **Russell Thorne**

Associated Preventions Group Inc.

## Associate

### **Guy Harvey**

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### **Clifton Furrow**

Chief Canterbury Fire Department

### **Gilles Lemieux**

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# 2002 Scholarship Donations



Leber/Rubes Inc.

Open Access

Randal Brown & Associates

Rick Florio

Gary Taylor

Michele Farley

Michael High

Paul Harding

Richard Morris

# schedule of events

## CFSA Lunch Meetings & Technical Sessions

Lunch meetings and technical sessions will resume in September.

Please check our website for upcoming dates to be announced.

[www.canadianfiresafety.com](http://www.canadianfiresafety.com)

Starting in September, CFSA will be changing the regular dinner meetings to **LUNCH** meetings on a trial basis (September, October and November) to better accommodate professional and personal time.

Also, the regular venue location, the Ramada Inn on Yorkland Blvd. is being relocated to the Toronto Police Association on Yorkland Blvd. (directly across the street from the Ramada Inn).

We hope these changes will serve our membership more efficiently. Please submit any comments to: [cfsa@taylorenterprises.com](mailto:cfsa@taylorenterprises.com)

## Other Events for 2002

### July 6-10

Maritimes Fire Chief Association  
Halifax, N.S.

### September 22-25

Canadian Association of Fire Chiefs  
Calgary, AB

### September 29 – October 2

Ontario Building Officials Association  
Windsor, ON

### LUNCH MEETINGS

**September 18**

**October 23**

**November 20**

### TECHNICAL SESSIONS

**October 16**

**November 6**

**December 11**

visit our Web site at

**[www.canadianfiresafety.com](http://www.canadianfiresafety.com)**

for all the latest news and events, including online reservations for:  
Dinner Meeting reservations, technical sessions,  
and much more.



**Editor:** Janet O'Carroll

The CFSA Newsletter is published 4 times per year – June, September, December, March

### **Advertising Rates** (per issue, GST extra)

Back cover	\$250
Full page	\$200
1/2 page	\$100
1/4 page	\$50
Business Cards	\$25

10% discount for CFSA Corporate Members.

All advertisements are required to be camera ready.

**Closing dates** for submissions are as follows:

- Issue #1 – May 20
- Issue #2 – Aug. 19
- Issue #3 – Nov. 19
- Issue #4 – Feb. 17

**All general enquiries** and advertising materials should be directed to the CFSA office at  
2175 Sheppard Ave. E., Suite 310,  
Toronto, Ontario M2J 1W8

Your comments, suggestions and articles are welcome. Please send them to the attention of:

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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 CFSA.

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# New CFSA Meeting Times

In September, October and November 2002, CFSA will be altering the current evening Dinner Meeting format to a luncheon meeting timeslot. The Board has voted to reschedule the meetings on a trial basis as a result of requests from CFSA members in the recent member mail-in survey.

**Mark your calendars, daytimers  
and Palm Pilots now.**



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# Emergency Circuit Cables

## The Spirit of the Code

*This article was provided by Barry O'Connell, P.Eng., Marketing Manager for Tyco Thermal Controls/Pyroteanax.*



### Synopsis:

New materials and new technologies drive a continuous flow of new products. Often, these products provide previously unavailable benefits. But occasionally, they also introduce new problems – for example when a new-technology product creates a new hazard that cannot be detected by established compliance testing methodology.

It looks like an ordinary cable type, yet qualifies as a "System #" in the UL Fire Resistance Directory. As such, it's apparently equal to any of the two dozen or so other fire rated System #'s, but it installs like a conventional electrical cable, (a perceived gain for electrical contractors because of their familiarity with conventional cables). So, there is no reason to avoid specifying it or using it, - right?

Maybe not. The "ordinary" cable is not quite as ordinary as it looks. It uses a new concept to achieve the fire-resistance - a new concept that carries with it a degree of hazard that should be unacceptable in the cable's intended application. The application? As a critical circuit conductor in an emergency life-safety application.

The NEC deals with critical circuit conductors in Articles 695 and 700 - Fire pumps and Emergency systems. These two articles deal with all of the minutiae of critical circuit design and protection, in exhaustive detail. The sole purpose of spelling out every detail is to ensure that no matter what happens, in a fire emergency, there will be sufficient guarantee of system reliability to ensure time for safe evacuation, and time for firefighting efforts to be effective. The implication of loss of, say the fire pump, during a fire is easy to imagine: no water to help contain the fire. Or imagine loss of smoke evacuation or air pressurization fans in stairwells.

The requirement for emergency generators, fire pump controllers and other components of the system is that they be located in a fire-protected room. A room that has a two-hour fire rating, for example, will keep the fire from the emergency equipment for two hours. A one- or two-hour rating is required based on the perceived time span needed for evacuation of a building.

The requirement for the electrical cable that carries the power to the fire pump (for example is – Article 695-6(b) - that they be kept entirely independent of all other wiring, be protected to resist potential damage by fire, structural failure, or operational accident, be encased in 2 in. (50.8 mm) of concrete or within enclosed construction dedicated to the fire pump circuit(s) and having a minimum of a 1-hour fire resistance rating, or be within listed electrical circuit protective systems with a minimum of 1-hour fire resistance.

There are about 25 fire-resistive systems in the Fire Resistance Directory, [excluding, incidentally the time-honored system of embedding pipe and wire in concrete]. These systems depended, until now, on maintaining the cable's electrical insulation intact throughout the required one- or two-hour period (with the exception of MI cable, which has no organic insulation and is relatively impervious to heat).

Enter a new concept - a cable with an insulation structure that is intended to be exposed to the heat, and in the process to decompose to an ash that is sufficiently cohesive (referred to colloquially as "ceramified") that it preserves the electrical insulation properties. The ash is contained in a metal cladding, or conduit, which allows it to remain intact during the UL 2196 fire-hose stream test. So far, so good.

In a fire, all sorts of materials are burning in the fire zone, and smoke is everywhere. The safety features in a modern building all come into play; fire-rated doors keep the heat from occupants of rooms in the fire zone; sprinklers operate; firefighters use the firefighter's elevator to gain access to an adjacent floor; fire alarm signals, warnings and voice communication take place. Smoke is evacuated from stairwells to allow egress. Smoke, the result of organic materials burning in the fire zone, is everywhere. None of it is flammable: It is the result of a burning process, and any flammable gases produced were burnt off in the fire.

But there may be another type of smoke being produced in this scenario - if the fire-rated emergency conductors are in the fire zone, and are of the type that allows the insulation to ceramify. This smoke is different for two important reasons:

1. It is not a product of combustion, since the insulation has been decomposed without direct exposure to flame; therefore, volatile elements have not burned off.
2. The smoke is not released in the fire zone, but channeled along inside the metal cladding or conduit to the emergency equipment to which it is connected.

As a result, flammable gases are being brought to precisely where they shouldn't be, and at precisely the time they shouldn't be there, in the middle of an emergency. So what does this mean? The volatiles in the "smoke" (which is produced in prodigious quantities from even small amounts of insulation) are readily ignitable, and a simple spark is enough to cause them to burst into flames - flames that can destroy the very equipment whose functioning the cables are intended to ensure.

Now imagine for a moment that a consumer product suffered from a parallel problem, and consider what would happen. Suppose, for example, the eyes (small glass beads) on a child's doll are normally held in place by a strong fiber - to prevent them from coming off and creating a potential choking hazard for a child.

Now imagine another similar doll, with the glass beads glued in place - a cost saving measure, apparently effective. However, there's a flaw; when moistened, there is a propensity for the glue to dissolve, therefore giving rise to the potential choking hazard. What would happen, once it was known? Two things - and very swiftly. The product would be removed from shelves, a recall issued, and a better glue found that would not suffer from the problem. In the consumer world, market forces have

very efficient mechanisms to deal swiftly with products that fail to meet standards that are fundamental.

In the business-to-business world of mandated safety standards, this consumer induced momentum for positive improvement is sorely lacking. Mandated by codes, and verified by test standards, minimum safety requirements are listed, and tests developed to ensure these minimum requirements are met. Changes happen slowly - and this is often a good thing. There is always pressure to reduce safety standards, and changes should be carefully thought through. However, the downside is that when a new hazard develops, it can take years for standards to catch up, and the damage done can be permanent in terms of reduction of safety margin. Does this mean the codes and standards are delinquent? No, it does not. Codes and standards evolve with change, and what has been perfectly adequate up to a given point in time, always has to be adapted to new circumstances.

There is a tendency in the marketplace to try to relax standards. In safety issues, it shouldn't happen. The codes and standards we enjoy in North America testify to our commitment to fire safety. Under no circumstances should safety standards be reduced. Therefore, it is imperative that when hazards are detected - circumstances for which existing codes and standards are not designed to assess but which pose safety concerns - it is imperative the immediate action be taken to assess the situation by bringing attention to it in order to safeguard the public.

Without such vigilance or responsible action in the spirit of public safety, disastrous consequences can occur. It has happened in other countries; it can happen here.



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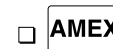
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