CFSA News

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Fire Safety is Everybody's Business

President's Message

We work in a service industry, an industry that provides for safety in the buildings we live in, work in, are entertained in, receive treatment in and are educated in. Each of us plays a role in this important industry.

The success of an industry is usually measured by the dollar profit margin. A service industry cannot do this, we have to look at estimating financial savings should there be a fire. For example, we can look at the history of fires in buildings and say "the cost of the fire was $x but if the building had not been sprinklered the cost would have been $xxxx" or "if the building had not been equipped with a fire alarm system and occupants not educated and practiced in emergency procedures there would probably have been loss of life". We can look at the reduction of deaths in fires in Ontario from approximately 240 per year to about 100 per year and show how this saving of lives can be contributed to the introduction of smoke alarms in the home.

We have come along way from notifying the Fire Department of a fire by activating the fire alarm call box on the street, the department attending at the box and then being directed to or searching the area for the fire. Now we have addressable devices (pull stations, smoke detectors and heat detectors) and communication systems that will direct the Fire Department to the fire location in the fastest time possible, however the most modern system is no better than the call box on the corner if we do not install it properly and maintain it as required.

Our business needs high ethical standards in all persons involved including the manufacturer, the installer, the maintenance person and the Inspector. The life of a building occupant could depend on a job being properly fulfilled by any one of the aforementioned. Building maintenance personnel and the security officer who carry out the daily, weekly and monthly Fire Code requirements have to be diligent in their work. The task of working on life safety equipment should not be a routine matter but carried out with the knowledge that someone's life could depend on the work being done. The technicians carrying out the annual inspection of the fire alarm system must also remember the importance of their work.

We set, and must continue to achieve a high professional standard. We are right in being proud of the industry we work in, but we cannot rest and must continue to progress. While people are still dying in fires we have to ask whether, there is the room for improvement in our standards and how we implement them. While there is the threat of terrorism we must continue to examine the emergency evacuation procedures for all types of occupancies.

Will Rogers said "Even if you are on the right track, you'll get run over if you just sit there", and W.J Bryan said "Destiny is not a matter of chance; it is a matter of choice. It is not a thing to be waited for; it is a thing to be achieved." The industry will continue to research for improvements and will continue to ask high ethical standards of all persons involved. The CFSA will continue to provide forums where changes can be discussed and learned.

Alan Kennedy
CFSA President

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Craig Cunningham
Toronto Fire Services (416) 338-9475

CFSA ADMINISTRATOR
Sherry Denesha

CFSA Event 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

Editorial

Editor's *Note*

A hot topic for discussion this year, and the feature presentation at the Annual Education Forum is residential sprinklers brought to the forefront by Bill 141, "An Act to amend the Building Code Act, 1992 respecting home fire sprinklers Residential sprinklers are nothing new to our industry, but trying to pass mandatory installation in new homes in Ontario is.

In this Newsletter we have articles on nuisance smoke alarms from the Office of the Ontario Fire Marshal, attracting and hiring top candidates, a recent Fire Code conviction in Brampton, ON, new cone calorimeter testing at Underwriters' Laboratories of Canada, emergency preparedness week and a CFAA press release regarding fire alarm system verification.

Also featured in this edition are the January and March Dinner Meeting overviews, "HiFOG® Water Mist Sprinkler Systems" presented by guest speaker Daniel Dye, Marioff Inc., Canada and "Flammability Standards for Consumer Product" presented by Wendy McNalley, Product Safety Officer, Federal Department of Health Canada. In addition, the March Technical session overview, "The 2004 Update of ULC S536 and S537 Standards and What You Need to Know" presented by Ken Baird, VP Systems Engineering, Leber/Rubes Inc., is also included.

The CFSA will continue to provide you with updated information as the industry in Ontario (and across Canada) progresses to push for the installation of residential sprinkler systems. Join us at the Education Forum on April 20, 2005, for up to date information on Bill 141 and residential sprinkler systems. We look forward to seeing you there.

Janet O'Carroll

NEW COMMISSIONER OF EMERGENCY MANAGEMENT IN ONTARIO

The former Toronto Police Chief Julian Fantino was named Ontario's new Commissioner of Emergency Management in early February.

Julian officially retired from the Toronto Police Services on February 28, 2005.

scheduled events

CFSA Events

The CFSA will resume dinner meetings and technical sessions in September 2005. A list of CFSA events occurring in the fall will be available in the Fall edition of the newsletter and on the website.

AGM & Annual Education Forum
April 20, 2005

Other Events

April 24 - 27, 2005
Building Officials Association of BC
50th Annual Conference
Vancouver, BC

April 28 – 29, 2005
New Brunswick Building Officials Association
2005 Annual Conference
NB

May 1 - 5
Alberta Fire Chiefs Association
Conference & Trade Show
Jasper, AB

May 1 – 5, 2005
53rd Annual Ontario Association of Fire Chiefs
Conference & Trade Show
Toronto, ON

May 8 – 12, 2005
International Building Safety Week

THE 2005 CFAA Annual Technical Seminar

When: **Tuesday May 31, 2005**

Where: The Executive Learning Centre, Schulich School of Business, York University

Presentations:

8:45 a.m. Fire Alarm Technician's Role in a Risk based Fire Safety Program
Speaker: Robert J. Cormier, Director Public Safety/Fire Marshal Nova Scotia

9:30 a.m. Speaker Circuits, their layout, sizing, current and voltage drop considera tions, and their effect on audibility
Speakerr: Ralph Coco, Potter Electric Signal & Manufacturing Ltd.

10:20 a.m. An overview of ancillary devices and their impact on Fire Alarm inspections
Speaker: Paul Jewett Technologies

10:40 a.m. Integrity and the Fire Alarm technician
Speaker: Andrew Hewitson, Siemens Building Technologies Ltd.

11:25 a.m. CAN/ULC-S537, "Standard for the Verification of Fire Alarm Systems", what is required in the new 2004 edition
Speaker: Ken Baird, Leber/Rubes Inc.

1:00 p.m. CAN/ULC-S536, "Standard for the Inspection and Testing of Fire Alarm Systems", what is required in the new 2004 edition.
Speaker: Ken Bair, Leber/Rubes Inc.

1:30 p.m. Acceptance criteria for fire alarm systems (regulatory approach to the CEC, NBC and ULC requirements)
Speaker: Ark Tsisserey, Chief Electrical Inspector, City of Vancouver

2:45 p.m. Owner/Facility Manager Expectations of the fire alarm system
Speaker: Steve Clemens, Chief of Fire Prevention, University of Western

3:30 p.m. Requirements for replacing a fire alarm system panel in an emergency and non-emergency situation
Speaker: Allen Hodgson, CFAA Executive Director

For more information on the 2005 CFAA Annual Technical Seminar, visit www.cfaa.ca.

EMERGENCY PREPAREDNESS WEEK

MAY 1-7, 2005

Emergency Preparedness (EP) Week being held May 1 to 7 this year is an annual national event to increase awareness about individual preparedness.

In 1995 the federal, provincial and territorial governments adopted the concept of EP week, with the first EP Week taking place in 1996.

This year, they have release a brochure entitled, "Emergency Planning for Your Family: The 5-Step Guide". The five steps are outlined as follows:

1. **Identify the Risks –** Identify those risks that are most likely to be encountered and how they will affect your family including:
   - Floods,
   - Earthquakes,
   - Tsunamis and storm surges,
   - Tornado's, hurricanes and blizzards,
   - Hail and lightning,
   - Landslides and avalanches,
   - Freezing rain storms,
   - Power outages,
   - Toxic chemical spills or fumes,
   - Terrorism or explosions,
   - Biological, radiological or nuclear incidents.
2. **Prepare your family emergency plan** – It is important to plan prior to event occurring.
3. **Assemble your emergency kits –** Ensuring that essential items are available when needed such as first aid kits, food and water, waterproof matches, manual can opener, flash light, batteries, battery or crank operated radio, etc.
4. **Check emergency plans –** Make sure that where you work and where your children go to school (or daycare) have an emergency plan in place.
5. **Have a family exercise –** Like the old saying "practice makes perfect", conducting an exercise with your family will help you feel more comfortable and become more organized for the real occurrence.

For more information on emergency planning for you and your family, visit www.emergencypreparednessweek.ca.

visit our website at

www.canadianfiresafety.com

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

Attracting and Hiring Top Talent

This article was provided by Bob Cantrell an Executive Recruiter for the Fire Protection Industry.

Attracting and hiring Top Talent is one of the most difficult and challenging aspects of running a fire protection company. This is largely the result of several issues, including the decreasing number of people entering an industry that is seen as less interesting a destination than other fields, in addition to an aging workforce. According to the Segal Special Report: The Aging of Aquarius, the Baby Boom Generation Matures, a maturing Baby Boom Generation and a significantly smaller succeeding generation (Generation X) is causing the aging of America. In 1980 half of America's workforce was under 35 years of age. In 2005, the midpoint will be age 41. The retirement age adult (65+ years of age) population will increase 102% between year 2000 and 2030 (34.8 to 70.3 million).

Additionally, top graduates with industry related degrees are heavily recruited right out of college by larger firms with appropriate leveraging capabilities to do so. This also does not leave enough quality graduates to satisfy the demand. 64% of Generation X workers have an education beyond high school compared to 44% of baby boomers. Attracting experienced designers, estimators, project managers or branch managers who are at the top of their game should therefore be proactively embraced. Having that top talent will have a compounding effect on your overall business plan.

As the economy continues to pick up and most firm's backlog increase, hiring qualified candidates will only become increasingly difficult. It is, however, still possible to find and attract top talent. It just takes a little more work, and you may have to examine some of the methods you're accustomed to using during the hiring process. This process should be thoroughly researched and best practices should be implemented sooner rather than later.

In its most simplistic form, hiring consists of three elements:

1) Finding someone who has the experience and qualifications you need,
2) Attracting them to your opportunity, and,
3) Getting an offer accepted.

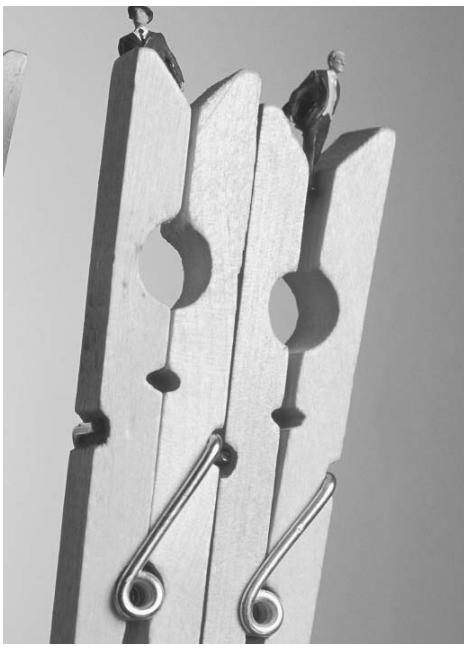
Each of the three elements has their own challenges and have accounted for numerous incidents of hiring the wrong person as well as missing the opportunity to hire the right person. On the other hand, understanding these three elements and using that understanding to your advantage can save time and money while searching for top talent. Having top talent can put you ahead of your competition.

Finding the Right Person

Finding the right candidate for the job is arguably the most important, and often the most difficult part of the hiring process. I have found that the top performers in almost any company are generally satisfied with their positions and are not actively seeking new employment. These top performers are one of your best resources for additional top talent.

The top performers who work for you now, know others like themselves. Use this valuable resource. Your vendors also know people at similar industry related firms and they may be able to lead you to a strong candidate.

Advertise your opportunities properly. Too many times people rely on the big machine to do their work for them. Likewise, too many times this results in responding applicants unqualified for the vacancy. Utilize your industry related sources first. Sources such as FPC Magazine, NICET.org or http://www.FireProtectionJobs.com.



Sources such as these target the market you want to attract with specific and effective results. When all else fails enlist the help of an executive recruiter who specializes in your industry and who can commit to an exhaustive Search on your behalf. Before you put a recruiter to work on a search, check out the recruiter and the firm they are with. Ask for a full description of their search and selection process, client references, and their annual numbers. Other firms typically place less than one professional monthly.

Sell Your Opportunity

Once you have identified a strong prospective candidate, you have to put an effort into sell-

ing your opportunity. Gone are the days where the candidate needs the client more than the client needs the candidate. In those cases, be cautioned of the unhappy, unqualified types who will tell you anything you want to hear.

Your selling of the opportunity should start during your first communication with the candidate. This is often the most poorly handled and frequently overlooked element of the entire process. This is a shame too, as selling the opportunity consists mostly of asking questions about career interests of the candidate and showing how your company can fulfill those interests. It is important to look at these candidates as long-term career employees instead of someone to fill an immediate need and to convey this to the candidate.

The truth is that if a candidate does not leave a first communication with more interest then they had when they walked in, you have wasted your time. I've seen the whole process die during this first interview with a candidate who could have excelled with a potential new firm if the hiring authority would have done a better job of selling their opportunity.

It is critical to remember that a top prospect is not desperate for a job. The good ones almost never are regardless of market conditions. In this market, a sharp designer, estimator/sales or project manager with a track record of success has countless options. Sometimes an employer will tell me, "I don't have to do any selling, either they want to work for me or I am not interested in them." That option is ok if you are satisfied with settling on a candidate who is a B or C level player. We have all seen examples of poor work ethics and job hoppers. Besides, while you sell the opportunity, you gain valuable insight into how the prospect thinks and whether or not you want to hire them. Bottom line is, as the hiring authority, you are in that position as a result of your own ability to sell your own attributes and your firm. Remember when you were selling on a bid, or to current / future clients. Use this same approach when selling to candidates.

During the course of this process, it is also critical to check out the candidate's work. If you are trying to hire a designer, have them bring in or send you some drawings. For an estimator, have them do a take-off test of show some projects they closed or were a part of. You will gain a lot of knowledge about the thought process and expertise of the candidate this way.

If you are looking for a project manager, ask questions about specific jobs the candidate has worked on, or involved with, and exactly what their duties were on the project. Look for those jobs that were on time and under budget. The ones turned from losers to winners and how that happened. Most successful candidates will be able to demonstrate one or the other of the following: Saving their company money, or making their company money. The candidates that can successfully understand how to do one or the other, or even better, both, and have a track record of success in this effort are the ones worth investing into.

A thorough interview process lets a potential prospect know that you are serious about putting together a competent and successful team, and that you intend to make it a long term career opportunity for the right person. Don't expect to accomplish all of this in one interview. Typically, two to three interviews are appropriate for most top candidates. More interviews than that, and you will probably miss out on the attracting them. It is also critical to keep the momentum flowing during the interview process and not to leave the top talent in limbo while you are making a decision.

Closing the Deal

Closing the deal is the final component of making a great hire. Handled properly, this step can ensure that your newest addition starts off with a satisfied feeling and a genuine excitement about beginning their new career. Handled improperly, you may end up with someone starting with a less than enthusiastic demeanor, or worse.

In 1985 a study by the Saratoga Institute claimed that the average expense of a Mis-Hire cost a company $15,000.00. More precise studies conducted by Bradford Smart, Ph.D author of Topgrading: How leading Companies win by hiring, coaching and keeping the best people, Prentice Hall Press 1999 and Geoff Smart, show that over a two-year period, a typical mis-hire for a person earning $62,000.00 base Salary can cost a firm $840,000.00, or a return on investment of – 300 percent (that's right, negative 300%). This includes: cost in hiring, compensation (all years), cost of maintaining the person in their job, severance, mistakes/failures/wasted and missed opportunities and the cost of disruption.

If you have the indication that a candidate is motivated only by money, then extending a formal offer of employment will be only a waste of time, unless the candidate is grossly underpaid. Most career moves are based on growth opportunities within their current company. This common or consistent culture /environment provides for a less stressful advancement than that of an external move. If you believe the candidate has the expertise and personality you need, then your need to prevent the "all things being equal" rule needs to be recognized. An improved salary, normally within a five to fifteen percent, is an acceptable guideline based on your need and the candidates comparative qualifications.

Successful hiring has become more difficult and will get worse before it gets better. Knowing now that this is due to demographics as much as it is to the fact that today's fresh graduates have many career options that appear more glamorous. As long as you are willing to put forth the effort to find quality candidates, attract the candidates to your opportunity, and make a competitive offer in a reasonable time frame, you can still close the deal!

This article was provided by Bob Cantrell an Executive Recruiter for the Fire Protection Industry. In January 2005, Bob developed and launched a new powerful tool for the fire protection industry http://www.FireProtection-Jobs.com - the Fire Protection industry's very own job board. You can contact Bob at: 877-Job Board (562-2627) or via e-mail at info@fireprotectionjobs.com.

Residential Smoke Alarms

Nuisance Alarms Status Report

This report was provided by the Office of the Ontario Fire Marshal.

Regulatory Changes

This report provides an overview of the issues, related research, and suggested recommendations to deal with nuisance smoke alarms that occur in homes.

- The existence of non-working smoke alarms is a problem, in Ontario, elsewhere in Canada and in the United States. It is recognized that reducing the number of non-working smoke alarms may produce further reductions in fire deaths, as could public education initiatives and increased use of smoke alarms that have convenience features. Nuisance alarms are a significant factor related to non-working smoke alarms.
- Nuisance alarms can be attributed to such conditions as inappropriate device placement (being too close to cooking activities, steam or moisture), lack of maintenance (which may increase sensitivity), and lack of occupant understanding (low battery warning 'chirp' is often misunderstood as a nuisance alarm).
- A common reaction to repeated nuisance alarms is to remove the source of power, often a battery, or otherwise disable the device and not restore its operation afterward. Then, should a fire occur, the device is not able to function.
- As a result, there is a strong need to educate the public on smoke alarms: sensor types, appropriate placement, maintenance, enhanced device features, such as a hush feature, tamperproof design and battery removal indicator, and legislative requirements.
- As regulatory agencies, we need to work with the smoke alarm industry to encourage innovative smoke alarm enhancements, and with the Standards writing and approval agencies to ensure Standard relevancy. Related to this, we have a responsibility to ensure that legislation is responsive to evolving technologies, standard revisions, or as circumstances dictate.
- Finally, we need to advocate enforcement of code requirements as an integral part of any smoke alarm initiative.

Background

A smoke alarm is a battery operated or electrically connected device that senses the presence of visible or invisible particles produced by combustion and that is designed to sound an alarm within the room or suite in which it is located.

Because the majority of fatal fires in the home occur at night while people are asleep, a working smoke alarm can provide an early warning of fire and the time needed to evacuate to safety. Installed and maintained properly in the home, a smoke alarm is an economical fire detection device.

Smoke Alarm Data and Research

Ontario fire data shows that fewer people die in home fires when a smoke alarm is present and activates. However, even when the smoke alarm is present, it does not always activate. In preventable fatal residential fires in Ontario 1995 to 2003, smoke alarms were present but did not activate 25% of the time. Where the smoke alarm did not activate, 60% had no battery, and another 7% had dead batteries.

As valuable as the OFM smoke alarm information is, the data has very specific context - the OFM only collects data related to fire occurrences. However, when specific information that we have in Ontario for preventable residential fires is compared to more extensive and detailed work undertaken by other agencies, it is clear that the smoke alarm experience in Ontario is consistent with the experience in other parts of Canada and in the United States.

This affords us the opportunity to review and learn from the in-depth studies and research of other agencies. From this, it is apparent that the installation of smoke alarms in homes has increased, and the number of home fire deaths has decreased. The merit of having home smoke alarms has been established.

Regrettably, the existence of non-working smoke alarms is a problem in Ontario, elsewhere in Canada and in the United States, and there are common circumstances associated with nuisance alarms. It is recognized that reducing the number of non-working smoke alarms may produce further reductions in fire deaths, as could public education initiatives and increased use of smoke alarms that have convenience features.

Defining the problem of Nuisance alarms

Why is it that a smoke alarm does not work? Too frequently, a smoke alarm is disconnected.

Why is it disconnected? Often the occupant wants to stop the annoying noise.

Nuisance alarms can be attributed to conditions such as inappropriate device placement (being too close to smoke generated by cooking activities, steam or moisture), lack of maintenance (which may increase sensitivity), and lack of occupant understanding (low battery warning 'chirp' is often misunderstood as a nuisance alarm).

A common reaction to nuisance alarms is to remove the source of power, often a battery, or otherwise disable the smoke alarm, and not restore its operation after the initiating incident. Then, should a fire occur at some future date, the device is not able to function.

Solutions to Nuisance Alarms

There are numerous ways to minimize nuisance alarms.

1. Properly locate alarms.
2. Properly maintain alarms.
3. Install new alarms that incorporate new, better technologies, such as:
   a. Pause or hush feature.
   b. Tamper proof alarms.
   c. Long-life batteries.
   d. Combination hardwired/battery backup unit.
   e. Indicator/cover plate to identify that battery has been removed.
4. Provide education on proper installation and maintenance of smoke alarms.

It is unreasonable to believe that there is one "solution" to nuisance alarms. In the ideal world one could require the installation of combination technology smoke alarms, appropriately located on all levels of the home or in each bedroom, hardwired with battery back-up, interconnected, with a hush feature, with on-going maintenance in all residential occupancies.

In the real world, however, many existing buildings already have smoke alarms, in compliance with current legislation, and there is a cost associated with any existing installation upgrades. Harmonization with other Codes also needs to be considered.

Pertinent Legislation and Standards related to Smoke Alarms

In Ontario, smoke alarm requirements are addressed in several documents. The Ontario Building Code (OBC) spells out smoke alarm installation requirements for new construction. The Ontario Fire Code (OFC) requires retrofit installation of smoke alarms in existing dwelling units (in Section 2.13, and also in Part 9 Retrofit for residential occupancies to which Sections 9.5, 9.6, and 9.8 apply). Both Codes specify compliance with CAN/ULC ULC S531, "Smoke Alarms".

The smoke alarm standard relates to standalone alarms, and interconnected alarms. The second edition of this Standard, adopted in 2002, and not yet referenced in either the OBC or OFC, identifies basic construction and operability requirements, without restricting or prohibiting the existence of convenience features where minimum criteria to address the fire safety component are met.

Of particular note, the Standard has been rewritten as three Standards:

- Construction and operability requirements astated in CAN/ULC S531-02.
- Maintenance operation and testing must be as set out in CAN/ULC –S552-02, Standard for the Maintenance and Testing of Smoke Alarms. Maintenance requirements were included in the Appendix in the earlier version of the Standard.
- Installation requirements of CAN/ULC-S553-02, Standard for the Installation of Smoke-Alarms are cited. Installation requirements were included in the Appendix in the earlier version of the Standard.

Recommendations

There are advantages and disadvantages to any particular suggested solution to deal with nuisance alarms, as detailed in Appendix 3*. No single option stands alone. However, several recommendations are offered.

1. Provincial and local public education programs about smoke alarms are critical to reducing nuisance alarms. In turn, this will help reduce the number of non-working smoke alarms and the number of fire deaths. Topics to be addressed include:
   - Understanding smoke alarm sensing (photo-electric versus ionization sensors)
   - Understanding smoke alarm sounds (alarm sound as opposed to battery "chirp")
   - Properly locating smoke alarms (placement on all levels, where within each level)
   - Properly maintaining smoke alarms (cleaning the chamber, testing operation, replacing batteries etc.)
   - Upgrading smoke alarms, to take advantage of certain features
     - Hush feature
     - Tamperproof casing
     - Combination hard-wired/battery back-up power
     - Dual sensor smoke alarms, etc.
   - Legislative requirements and responsibilities.
2. The OFM, as a respected leader in the fire safety business, strives to work collaboratively with our industry partners. We need to continue to encourage the industry to come up with innovative smoke alarm enhancements that deal with nuisance alarm issues and are cost effective.
3. Our collaboration with fire safety partners also extends to our continued participation in the standards writing process, to ensure standard relevancy. The Standard is not intended to dictate how a smoke alarm must work. Rather, it needs to be objective, and ensure acceptable performance. Balancing the demands of the regulators, users and manufacturers that are represented on the committee, the 2002 smoke alarm standard includes minimum requirements and optional smoke alarm enhancements.
4. As legislators, we have a responsibility to ensure currency of the Codes.

In Ontario revisions are needed to both the OBC and OFC to recognize new installation and maintenance standards, CAN/ULC-S552-02, Standard for the Maintenance and Testing of Smoke Alarms and CAN/ULC-S553-02, Standard for the Installation of Smoke-Alarms.

A proposed change to the OFC, to require the installation of smoke alarms on each level of the home, is in process.

5. Enforcement of code requirements should be an integral part of any smoke alarm initiative. Building owners and occupants need to carry out their legislated responsibilities. Strict enforcement of these requirements is too often seen by the fire service as counter to the helping culture of these organizations. This mindset needs to change. Building owners/tenants who put occupants (e.g., children, the elderly) at risk should be penalized.

As well, educating Crowns and the judiciary may achieve increased fines for contraventions of the Fire Code.

* Appendix 3 has not been included in this article.

For more information, visit the Office of the Ontario Fire Marshal's website at www.ofm.gov.on.ca.

Flammability Standards for Consumer Products

On March 16, 2005, Wendy McNalley, Product Safety Officer for the Federal Department of Health Canada presented an overview of the flammability standards for consumer products including the *Hazardous Products Act*.

The *Hazardous Products Act* controls the sale, advertising and importation of hazardous products used by consumers in the workplace. The *Act* covers consumer products which are poisonous, toxic, flammable, explosive, corrosive, infectious, oxidizing and reactive; workplace hazardous materials; products intended for domestic or personal use, gardening, sports or other recreational activities, for lifesaving or for children (i.e., toys, games and equipment) which pose or are likely to pose a hazard to public health and safety because of their design, construction or contents.

The *Act* consists of three parts:

- Part I – Prohibited and Restricted Products,
- Part II – Controlled Products,
- Part III – Administration and Enforcement.

Part I – Prohibited and Restricted Products

There are currently 40 items that Health Canada has banned from being sold, imported or advertised within Canada. This section consists of such items as:

- General consumer textiles – including clothing and house wares exhibiting a flame spread rating of 3.5 seconds or less or a flame spread rating for raised fibres of 4.0 seconds or less.
- Tightly fitted children's sleepwear – exhibiting a flame spread rating of 7.0 seconds or less.
- Bedding made of textile fibres – exhibiting a flame spread rating of 7.0 seconds or less.
- Relight candles.

Part II – Controlled Products

In addition to the list of prohibited and restricted products, there are 46 controlled products including:

- Matches,
- Carpets – large & small,
- Tents,
- Mattresses,
- Cigarette lighters,
- Loose fitting children's sleepwear,
- Consumer chemical labeling and packaging,
- Cellulose insulation,
- Toys,
- Smoke detectors,
- Charcoal.

Each controlled product must meet certain performance, labeling, flammability and mechanical testing and requirements.

Health Canada also has voluntary standards for fire logs and upholstered furniture.

Health Canada will investigate complaints submitted by the general public but typically the majority of complaints are submitted by the Office of the Ontario Fire Marshall (OFM). Investigators will identify the problem, obtain a sample product and test the product to reproduce the problem. Items that are electrical based or explosives (classed under the *Explosives Act*) are not investigated.

What's New?

Health Canada is currently working on regulations for candles including labeling and performance standards (as candles and candle holders are currently an item of concern), utility lighters (i.e. lighters used to ignite barbeques) and reduced ignition propensity cigarettes.

For more information visit Health Canada's website at www.hc-sc.gc.ca.

The CFSA would like to thank Wendy McNalley for a very informative presentation on the *Hazardous Products Act* and the initiatives of Health Canada.

tyco Fire & Security
ADT

Tony Barbuzzi, C.E.T.
Integrated Systems Consultant

ADT Security Services Canada, Inc.
2815 Matheson Boulevard East
Mississauga, ON
Canada L4W 5J8

Tele: 905-792-4018
Fax: 416-226-5302
email: tbarbuzzi@tycoint.com

FIRE & LIFE SAFETY CONSULTANTS
INNOVATIVE FIRE INC

Mike Lupo, C.E.T., CFPS
President

35 The Links Road, Suite 205
Toronto, ON M2P 1T7
E: lupo@innovativefire.com
Web: www.innovativefire.com

Tel: 416.221.0093
Fax: 416.221.9908

The Canadian Fire Safety Association (CFSA), Education and Scholarship Committee for a 2nd year, has secured funding for five (5) substantial scholarships. These scholarships are given to the top fire protection students in their category as follows:

CFSA Peter Stainsby Award ($1000.00)
Presented by the CFSA to the TOP GRADUATE of a three-year Fire Protection Technology course, who has excelled with outstanding leadership, motivation and technical skills and an overall academic proficiency.

CFSA Fire Safety Award ($750.00)
Presented by the CFSA and funded by Leber/Rubes Inc., Randal Brown & Associates and Nadine International Inc. to the TOP STUDENT having completed year 2 of a 3 year Fire Protection Technology course with outstanding leadership, motivation and technical skills and an overall academic proficiency.

CFSA Leber/Rubes Inc. Award ($750.00)
Presented to a TOP year 2 student of a 3 year Fire Protection Technology course with exceptional overall skills in Fire Alarm Technology and an academic proficiency of 3.25/4.00.

CFSA Randal Brown & Associates Award ($750.00)
Presented to a TOP year 2 student of a 3 year Fire Protection Technology course with exceptional overall skills in Codes/Standards Technology and an academic proficiency of 3.25/4.00.

CFSA Nadine International Inc. Award ($750.00)
Presented to a TOP year 2 student of a 3 year Fire Protection Technology course with exceptional overall skills in Fire Suppression Technology and an academic proficiency of 3.25/4.00.

The CFSA would also like to thank the many corporate and individual sponsors who donated funds when renewing their membership fees or submitting donations, including:

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Terry Leonard, Sru Safety Inc.
Gordon J. Wood, Toronto Rehabilitation Centre
Marc Denis, University of Ottawa

The CFSA has and will continue to support the top students in the field of fire protection who show leadership, motivation, technical skills and an overall academic proficiency. In order to create a fire safe environment for Canada in the future, we must encourage those students to one day become leaders in their field.

Code Corner

Fire Code Conviction

Two years ago, on February 18, 2003, 21 people were crushed to death while attempting to escape from a Chicago nightclub. Two days later, 100 people perished in a fire in a nightclub in West Warwick, Rhode Island.

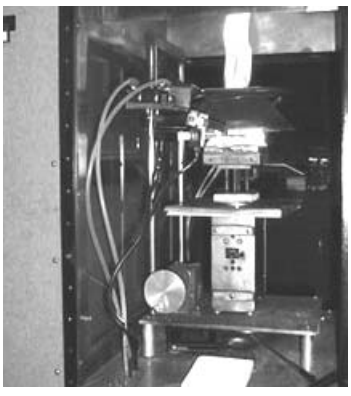
These two major incidents prompted Brampton Fire and Emergency Services to initiate a programme whereby Fire Prevention Officers attend similar type occupancies in the evening hours, accompanied by members of Peel Regional Police and the Alcohol and Gaming Commission of Ontario, so as to assess basic fire safety provisions. Among other things, Fire Prevention staff check for a working fire alarm system, over crowding and accessible exits.

On March 21, 2004, Fire Prevention staff attended a local assembly occupancy and found that a required exit door was not operable. In taking a zero tolerance position, the Fire Prevention Officer initiated charges under the Ontario Fire Code.

The ensuing trial ended with a conviction of the owner on February 9, 2005, and in the penalty phase of the trial, the defendant's agent proposed that a fine of $500 be fitting, given that this was the first conviction of the defendant. The City of Brampton prosecutor countered that a fine of $12,500 dollar was more appropriate, given the significance of the impact that the violation could have on the safety of the patrons and staff of the facility, and in light of the incidents in Chicago and West Warwick two years ago. The Court imposed a fine of $9,500, with the intention that the penalty would serve as a punitive measure to the owner and a general deterrent to other owners' of assembly occupancies, thereby sending the message that fire safety violations, including improperly maintained exits, will not be tolerated.

This article was submitted by Brian Maltby, Division Chief of Fire Prevention for the Brampton Fire and Emergency Services.

What's New @ ULC? The Cone Calorimeter



Underwriters Laboratories of Canada provides a credible and cost-effective means to predict real world fire behavior. The Cone Calorimeter is an analytical instrument that can accurately measure heat and smoke output from a product sample.

This dynamic small-scale test apparatus can be used to determine product fire characteristics such as ignition time, weight-loss, heat and smoke release rates, heat of combustion and the average specific extinction area.

For more information on the Cone Calorimeter and ULC's Analytical Services please contact Kevin Sawyer at 416-988-4087, sales@ulc.ca or Sandy Leva at 416-757-3611 or 1-866-9373-ULC, customerservice@ulc.ca.

Carleton and NRC team up to expand fire research facilities

Carleton University, in partnership with NRC, the Ottawa Fire Services and the Toronto Transit Commission, with resources obtained from the Canada Foundation for Innovation and the Ontario Innovation Trust, has just completed construction of full-scale fire research facilities adjacent to existing NRC facilities in Almonte, Ontario. The new facilities, combined with the capabilities of the existing ones, provide a unique world-class resource for the Canadian construction and transportation industries.

The new facilities include:

- a 10-storey atrium with approximate dimensions of 20 x 20 x 26.5 m high. The atrium shares a wall with the existing 10-storey tower facility. The expanded facility will provide new opportunities for investigating smoke management in high-rise buildings and large-volume spaces,
- a new burn hall with dimensions of 20 x 20 x 12 m high. This hall can be used to investigate fire scenarios involving large fires,
- a tunnel measuring 10 m wide, 5.5 m high and 37 m long for conducting tests that realistically simulate fires in roadway and mass-transit tunnels.

Smoke produced in all three new facilities can be collected and exhausted through a high-capacity fan system (160 m3/s) to measure the heat-release rate. This exhaust system can also be used to simulate smoke-management systems used in atrium applications and in the emergency ventilation systems used in tunnels.

"The expanded test facilities will provide new opportunities for research that can improve fire safety in residential and commercial buildings, as well as in transportation facilities," said Prof. George Hadjisophocleous, Carleton University. "They will also provide a unique opportunity for training students."

For more information on the Carleton University program in fire-safety engineering, please visit the Web site at http://www.carleton.ca/~ghadjiso/.

For further information on the full-scale fire research facilities, please contact Mr. Bruce Taber at (613) 256-4464, fax (613) 256-1309, or e-mail bruce.taber@nrc-cnrc.gc.ca.

CFAA Press Release – Fire Alarm System Verification Procedures

On January 1, 2005, The Canadian Fire Alarm Association (CFAA) released the following information regarding fire alarm system verification procedures.

Background:

Building Codes reference CAN/ULC-S537 Standard for the Verification of Fire Alarm Systems, which therefore makes compliance with the standard a legal requirement. The Standard tells what to do and how to do it, however it does not (being a standard it cannot) state who must do it. The Preface to the Standard contains references as to who should (and who should not) perform the work – but we know that the contents of the Preface are only guidelines. Because of the lack of definitive requirements, this question has become a serious problem for Authorities Having Jurisdiction across Canada.

Policy Statement:

The Canadian Fire Alarm Association therefore issues this Policy Statement:

1. Verifications are to be performed by, and/or supervised by, Fire Alarm Technicians registered by, and in Good Standing with, the Canadian Fire Alarm Association.

Notes:

a) One-person Verifications are not acceptable.

b) Trainee Technicians (maximum of two per Technician) may assist the Supervising Technician.

c) If the system is of conventional design, the Supervising Technician must be knowledgeable on the specific equipment to be Verified.

d) If the system is of addressable design, or is software driven, or is a networked system – then the Supervising Techniciamust have received factory-authorized training, and must be current on that training, related to the specific equipment to be Verified.

2. Verification procedures must be performed in accordance with the applicable edition of CAN/ULC-S537 Standard for the Verification of Fire Alarm Systems.

3. A Verification Report is to be issued upon successful completion of the Verification. The Report is not to be issued to the Authority Having Jurisdiction until the system is clear of all deficiencies. The Report is to be signed by the Supervising technician. (Note that Partial Occupancies/Verifications may occasionally be necessary).

4. Because the system was installed under an Electrical Permit, the Municipal Electrical Authority is to review the system installation and issue a clearance Certificate.

5. The Installing Contractor is to issue a Certificate (or letter) stating that they installed the system (materials and methods) in accordance with the applicable requirements contained in CAN/ULC-S524 (applicable edition!) Standard for the Installation of Fire Alarm Systems, and in accordance with the applicable Electrical Code.

As part of the Building Permit application process, the engineer who designed the system shall provide periodic inspection and final site review, in accordance with the Professional Engineers Guideline for General Review of Construction. The engineer shall provide a letter confirming that the installation has been completed in general conformance with the project specification and drawings.

Editor: Janet O'Carroll

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

New 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	500
Full Page	200	400
1/2 Page	100	200
1/4 Page	50	100
Business Cards	25	50

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

For more information regarding advertising in the CFSA Newsletter, please contact Sherry Denesha at 416.492.9417 or cfsa@taylorenterprises.com.

Closing dates for submissions are as follows:

Issue #1 – May 20 Issue #3 – Nov. 19
Issue #2 – Aug. 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: The Editor
Canadian Fire Safety Association
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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.

CFSA Chapters

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

Hi-Fog® Water Mist Sprinkler Systems

This article was provided by Geoff Bretzler, Fire Protection Technologist with Randal Brown and Associates Ltd.

The following is a synopsis of the Hi-Fog® Water Mist Sprinkler System presentation conducted by Daniel Dye of Marioff Inc., Canada at the CFSA Dinner Meeting on January 19, 2005. The Hi-Fog® Water Mist System is a proprietary fire suppression system developed by Marioff Corporation Oy of Finland.

After being introduced, Mr. Dye presented a short film involving Hi-Fog® Water Mist Systems. The film that Mr. Dye screened was produced by Royal Caribbean Cruise Lines, and was both compelling and informative. The film revolved around two separate fires aboard Royal Caribbean cruise liners. The fires were similar in that both occurred within their respective ship's Engine Room. Yet what distinguished these fires from one another was the manner in which these fires were extinguished.

The first fire proved difficult to extinguish and did significant damage to the ship's engine. The costs associated with this fire proved considerable, and the losses suffered by the cruise line included not merely the expenses associated with making the necessary repairs to the engine, but also the lost time at sea and subsequently the income lost during the duration of those repairs. The Engine Room aboard this ship was not provided with a Hi-Fog® Water Mist System.

The second fire occurred on a ship which was provided with a Hi-Fog® Water Mist Systems in its Engine Room. The circumstances surrounding this second fire were identical to those that surrounded the initial fire, save for the presence of a Hi-Fog® Water Mist System. Where the first fire proved exceptionally difficult to extinguish, this second fire was extinguished within a minute by the Hi-Fog® Water Mist System. Furthermore, the fire did little damage and required little repair time or costs. Royal Caribbean attributed the remarkable reductions in time and repair costs due to the presence of the Hi-Fog® Water Mist System.

Mr. Dye made a point of mentioning the following features of the Hi-Fog® Water Mist System:

- Superior fire suppression (when compared to traditional sprinkler systems and chemical extinguishing systems),
- Smoke scrubbing/cleaning capabilities,
- Minimal water damage,
- Low refill costs,
- Environmentally-friendly,
- Suitable for wide-ranging applications.

Fire Suppression

Hi-Fog® extinguishes fire in two separate ways. First, the water mist cools the fuel, which prevents the evolution of flammable gases that sustain combustion. Second, the water mist surrounds the fire creating a hypoxic (oxygen deficient) environment. The Hi-Fog® Water Mist droplets evaporate rapidly when subjected to the heat of the fire. This evaporation leads to the development of a steam-rich, oxygen-poor envelope around the burning material which suffocates combustion.

The combination of the cooling and the oxygen displacing characteristics of the Hi-Fog® water mist results in efficient extinguishment. Mr. Dye suggested that the Hi-Fog® Water Mist System, because it interferes with two aspects (heat and oxygen) of the fire tetrahedron (heat, fuel, oxygen, and chain-reaction), will extinguish fires more rapidly than traditional sprinkler systems.

Smoke Scrubbing

An unanticipated, but welcome side-effect of Hi-Fog® is its smoke-scrubbing ability.

Marioff did not intentionally design a smoke scrubbing component into the Hi-Fog® System, but the inherent properties of the water droplets produced by the sprinkler heads leads to such a welcome condition. The minute water droplets bind to the polarized smoke particles created during combustion, the smoke particles then drop to the floor, rather than remaining suspended in the air and obscuring vision. This side-effect significantly reduces clean-up time and expense, allowing a building, or ship, to return to its intended use more rapidly.

Minimal Water Damage

The Hi-Fog® system releases a small amount of water when compared to traditional sprinkler systems. As a result, the amount of water damage that ensues from the activation of such a system is small. This minimizes clean-up times and costs, and increases the amount of material that can be salvaged in the aftermath of a fire.

Low Refill Costs

The costs associated with refilling the system are low. Following discharge, only the water cylinders require refilling. For those Hi-Fog® Systems which utilize nitrogen as the pressure source, the nitrogen cylinder also requires to be refilled following a discharge of the system.

Environmentally-Friendly

The small amount of water released by the system reduces the amount of run-off following activation when compared to a typical sprinkler system; thereby preventing harmful products of combustion form entering the water system and damaging the environment. Furthermore, the system does not use chemicals that are environmentally destructive.

The system also poses no threat to human life; meaning, humans can remain in a room that experiences a Hi-Fog® System discharge without ill-effect.

Applications

According to Mr. Dye, the Hi-Fog® Water Mist System is ideal for a variety of applications, including:

- Turbines,
- Machinery spaces,

- Computer rooms,
- Transformers,
- Television stations,
- Heritage buildings,
- Museums,
- Deep fat fryers,
- Flammable liquid storage rooms,
- Train/Subway Tunnels.

Additional Benefits

In addition to the benefits already cited, the Hi-Fog® Water Mist System:

- is a good choice for retrofit projects because of the small diameter of pipe required for the system, making it easy to use on tight job sites,
- is easy to test, and during testing (actual discharge) the entire system is exercised,
- blocks radiant heat, and has been used to protect car accident victims trapped in burning automobiles.

Disadvantages

The primary disadvantage associated with Hi-Fog® Water Mist Systems, according to Mr. Dye, is the initial installation expense. When asked how the Hi-Fog® Water Mist System compares when priced against a traditional sprinkler system installation, Mr. Dye estimated the cost to be approximately five times higher for the Hi-Fog® Water Mist System.

Summary

Hi-Fog® Water Mist Sprinkler Systems are efficient fire extinguishing systems. These systems extinguish fire by both cooling the material(s) fuelling the fire and by creating a hypoxic environment around the fire source. In addition to rapidly extinguishing fire, Hi-Fog® Water Mist Sprinkler Systems reduce the amount of smoke that is present in the air. This smoke-scrubbing characteristic of Hi-Fog® Water Mist Sprinkler Systems reduces the time and expense associated with the clean-up which follows a fire.

The relatively small amount of water that these systems release upon discharge (when compared to traditional sprinkler systems) also greatly reduces the time and expense associated with post-fire clean-up. Furthermore, water damage is minimized and the amount of property that can be salvage is maximized where Hi-Fog® Water Mist Sprinkler Systems are employed.

Hi-Fog® Water Mist Sprinkler Systems are suitable for a variety of applications, and upon discharge these systems pose no threat to human life.

To learn more about Marioff and Hi-Fog® Water Mist Sprinkler Systems, please refer to: www.marioff.com.

The CFSA would like to thank Dan Dye for a very informative presentation on Hi-Fog® Water Mist Sprinkler Systems.

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The 2004 Update of ULC S536 and S537 Standards and **What You Need to Know**

On March 2, 2005, Ken Baird, VP Systems Engineering for Leber/Rubes Inc. presented an overview of the changes to the 2004 Editions of CAN/ULC-S536, "Inspection and Testing of Fire Alarm Systems" and CAN/ULC-S537, "Verification of Fire Alarm Systems".

The new objective based National Building and Fire Codes of Canada (to be issued mid 2005) will identify that verification and test of fire alarm systems must be performed in accordance with the 2004 editions of CAN/ULC-S536 and S537.

Changes to Both Standards

CAN/ULC-S536 and S537 have been redeveloped with consistent changes occurring in both documents, which include:

- following a similar format and using similar language and forms,
- updates to reflect current codes and standards,
- improvements to clearly identify required testing and inspection,
- improved report and details forms,
- a coordinated "glossary" of terms,
- control panels and transponders are subject to the same tests,
- tests and inspections indicate "as applicable".

Changes to CAN/ULC-S537

There are changes throughout many of the sections in CAN/ULC-S537 including:

Section 3.1 – General

- Clauses have been added requiring each field device and component of the fire alarm system must be verified and tested.
- Partial and staged occupancy must be completed in phases as work is finished and the system must be retested in accordance with CAN/ULC-S536 once fully completed.

Section 3.2 – Documentation

- A new section with clauses moved from other sections.
- Provides requirements for preparing the verification report.

Section 3.3.1 – Wiring – Supervised Circuits

- Requirement added to test Class A circuits with conventional devices for full operation on both side of the break when an open is created.

Section 3.3.4 Operations Tests for Data Communication Links (DCL)

- Addition for operational tests where fault isolation is provided in DCL serving devices or serving transponders or control units.

Section 4.1 – Verification Procedure – General

- Addition for device testing, confirming output function including:

  - One (1) conventional field device in each circuit, one (1) conventional field device in each circuit monitored by a supporting field device or one (1) active field device in each zone* to be operated to confirm output operation. Other devices can be tested with the outputs inhibited.

  *Provided a printout of the input to output correlation is included as part of the documentation

Section 4.2.4 - System Response Time Test

- Addition of testing system response times for audible and visual signals, remote connection, releasing device, required annunciation, required CACF operation, and ancillary circuits.

Section 4.2.5 – Control Unit or Transponder Inspections

- Inspections have been added to verify transponders with stand alone capability serve same area for inputs and outputs and have control switches and indicators for control while in degraded or stand alone operation. Also included in this section is operating instructions for each transponder or control unit.

Section 4.3 – Large Scale Networks

- Where large scaled networks are used, additional tests and inspections are required, including:
- Verify transponders with stand alone capability serve same area for inputs and outputs and have control switches and indicators for control while in degraded or stand alone operation.
- Confirm that a single open ground or short between any nodes provides a continued alarm capability and a trouble indication.
- Test stand alone capability for each node by disconnecting from the network and confirming output operation in the area served.
- Where large scaled networks are used, test degraded mode capability testing for:
  - alarm signals to operate as per the operating sequence,
  - alert and alarm signals to remain synchronized,
  - output relays to operate as required,
  - control switches and indicators function for each network segment.

Section 4.5 – Annunciators

- Modified requirement for inspection and testing where multiple annunciators are provided, confirming operation of individual alarm and supervisory indications.

Section 4.6 – Printers

- This section has been revised to include basic testing requirements to see if the printer operates as per design and specification, that the zone of each alarm initiating device prints correctly and the rated power is present.

Section 5.4 – Smoke Detectors

- A clause has been added to identify acceptable methods for determining smoke detector sensitivity
  - manufacturer's recommend test instruments, equipment or method,
  - control units designed to display sensitivity,
  - third party calibrated test instruments.

Section 5.10 – Signal Devices

- Addition of requirement for measuring sound pressure level for each fire alarm zone at the acoustically most remote location.
- Additional requirements in residential occupancies to:
  - measure and record sound pressure levels for one of each typical suite,
  - confirm silencing switch for in-suite device is accessible, marked, operational and resounds after the 10 minute silence period,
  - confirm operation where signal circuit fault isolation modules are used.

Section 6.1 – System Modifications

- Addition of verification where field devices have been added to a system to confirm compatibility with control unit and other devices, loading of circuit has not been exceeded, sufficient emergency power capacity for addition and input to output operation tested for correct operation.
- Addition of verification of devices connected where a data link is added.
- Addition of requirement to verify all devices where an existing control unit or transponder is replaced.

Appendix C – Verification Reports

- Detail pages and the cover pages have been modified.

Changes to CAN/ULC-S536

There are changes throughout many of the sections in CAN/ULC-S536 including:

Section 3 – General Requirements

- The requirement for initial test and inspection for systems where verification data is not available has been removed.
- Addition of requirement to describe the system as installed (including sequence of operation) at the time of inspection and test.

Section 5.1 – Documentation – Yearly

- Addition of this section to mandate requirement for yearly inspections and tests to be recorded on the report forms (provided in Appendix D and E).

Section 5.2.1 – General – Control Unit and Transponder

- Section moved to 4.2.5 of CAN/ULC-S537.

Section 5.2.2 – Control Unit and Transponder Tests

- Additions including:
  - automatic transfer from alert to alarm signal cancel, operates on 2 stage system,
  - alarm signal manual silence operation,
  - audible and visual alert and alarm signal programmed to operate as per design and specification of the documentation (Appendix C),
  - ancillary circuit bypass results in trouble signal,
  - status change confirmation verified,
  - requirement to confirm receipt of trouble and supervisory signals at signal receiving center (as applicable),
  - confirmed operation of the disconnect for the signal receiving centre causes specific trouble on control unit and transmit trouble to the receiving centre.

Section 5.2.3 – Power Supply – Batteries

- Section defines two (2) acceptable test procedures for batteries; a battery capacity meter or replace the batteries.

Section 5.4 – Annunciators

- Addition of requirements to ensure displays are visible in installed location and operates under emergency power.

Section 5.5 – Printers

- Same requirements as noted under section 4.6 of CAN/ULC-S537

Section 5.7.1 – Field Devices General

- Addition of requirement to inspect each field device to confirm protective dust shields or covers have been removed.
- Addition of requirement to test all field devices on a yearly basis, except if the device cannot be reasonably made accessible due to safety considerations (which must be recorded and test at least every 2 years).

Section 5.7.6.4 – Supervisory Devices – Other Types

- Addition of requirement to ensure devices are installed correctly and tested in accordance with the manufacturer's requirements or an appropriate test means to ensure audible and visual trouble.

Section 5.7.9.2 – Audible Signal in Residential Suite

- New section requiring inspection and testing of audible signal devices in residential suites for proper installation, intelligibility of voice messages, audibility of alert and alarm, silencing means, accessible and identified, operation of the switch silences in suite signal.

Section 5.7.11 – Conventional Circuit End of Line

- Test each input and output circuit end of line for open, short and ground and record the results.

In summary, CAN/ULC-S536 and S537 have been updated to reflect changes in other codes and standards as well as to format the documents to ensure consistency and easier use.

The CFSA would like to thank Ken Baird for excellent presentation, keep us up to date on the standards for inspection, testing and verification of fire alarm systems.

Canadian Fire Safety Association
2005 Annual Seminar

Wednesday, April 20th

Toronto Fire Academy
895 Eastern Avenue, Toronto, ON M4L 1A2
Tel: (416) 338-9599 • Fax: (416) 338-9584

Program

8:00 am - 8:15 am	Annual General Meeting
8:15 am - 9:00 am	Registration
9:00 am - 9:05 am	Welcome
9:05 am - 10:20 am	**RESIDENTIAL SPRINKLERS: VISION AND REALITY**

Will Ontario legislate mandatory residential sprinklers? Our keynote speaker, Brampton Centre MPP Linda Jeffrey, introduced private members Bill 141 – the *Home Fire Sprinkler Act* – which passed second reading in November 2004. MPP Jeffrey will update us on the status of the Bill. Other presenters will discuss the benefits and challenges of residential sprinkler design and installation, that affect this important subject.

PRESENTERS:

Linda Jeffrey
MPP Brampton-Centre

Brian Maltby
Chief Fire Official, City of Brampton

Matthew Osburn
Regional Manager, Canadian Automatic Sprinkler Association

10:20 am - 10:40 am	Coffee Break
10:40 am - 11:40 am	**TRENDS AND EVOLUTION OF JOINT AND PENETRATION FIRESTOPPING**

This presentation will provide a thorough overview of many firestopping related issues including review of current and upcoming Building Code requirements, testing and qualification requirements, and field recognition of approved materials and systems. North American trends for joint and penetration firestops will also be discussed.

PRESENTER:

Tony Crimi, P.Eng.
President, A.C. Consulting Solutions Inc.

11:40 am - 12:00 pm	CFSA Scholarship Awards Presentation
12:00 pm - 1:00 pm	Lunch
1:00 pm - 2:30 pm	**INDUSTRIAL EXPLOSION PROTECTION**

This session will review industrial explosion fundamentals. Subjects discussed will include equipment at risk, explosibility of dusts, explosibility testing, explosion venting, explosion suppression, explosion propagation concerns and explosion isolation.

PRESENTER:

Ed Chovanec, C.E.T., C.S.P.
Central Regional Manager, Fike Canada Inc.

2:30 pm - 2:50 pm	Coffee Break
2:50 pm - 3:50 pm	**FIRE RATED DOOR HARDWARE ISSUES**

This presentation will review hardware requirements for fire rated doors installed in required fire separations, including exits. Hardware information and options will be discussed for hinges, locks and latchsets, exit devices, doors closers, smoke seals and protective hardware including maglocks, electric strikes and other security devices. The seminar will also consider common errors frequently encountered in site installations.

PRESENTER:

Gerald Atkin, AHC
Corporate Specifications, Yale-Corbin Canada Ltd.

3:50 pm - 4:00 pm	Closing

Canadian Fire Safety Association
2175 Sheppard Avenue East, Suite 310, Toronto, ON M2J 1W8
Tel: (416) 492-9417 • Fax: (416) 491-1670
Website: www.canadianfiresafety.com

Member's forum

Please use the Member's Forum to submit your thoughts and comments on CFSA Programs and events or to let us know what you would like to see as future dinner or technical session topics. Please use the form below to update the CFSA office of any change in address or member information. Don't forget to let us know your e-mail address and website URL (if applicable). We look forward to hearing from you. **Send your comments and suggestions to: 2175 Sheppard Ave. East, Suite 310, Toronto, ON M2J 1W8 or fax to: (416) 491-1670 or by e-mail: www.cfsa@taylorenterprises.com Website: www.canadianfiresafety.com**

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	Fee	+7% GST	Total
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○ Individual	$ 65.00	$ 4.55	$ 69.55
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CFSA Policy Statement

The Federal Government has introduced new privacy legislation effective January 1, 2004. CFSA respects your privacy and has included their privacy statement on the CFSA website at www.canadianfiresafety.com for your review.

CFSA does not share your information with any other organization. Paying your membership renewal with CFSA indicates that you wish to continue receiving Association information.

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