AMA Regional SCO Meeting Minutes

Building, Fire, Electrical, Plumbing, Gas & Private Sewage

Red Deer

Wednesday October 19, 2016
8:30 am – 4:00 pm
Red Deer Quality Inn North Hill
7150 50 Avenue
Kentwood Room

Facilitators
Joe Healy,
Building
Inspector, AMA
Mike Hill,
Building
Inspector, AMA

Minutes

Safety Codes Council Updates

Accreditation & Certification updates
- QMP reviewed and updated and approved
- Orders/Variance registry, easy way to make and create orders 3 municipalities working on the pilot project

Training updates
- New building certification. in place Oct.3rd, 200 SCO’s transferred to the new training program
- Fire certification consultation update to come
- 70% of SCO’s completed energy code training
- April 15 student awards application cut-off date for SCO’s were their employer don’t subsidise course and train costs.
- End of 2017 professional development implementation

ACT Project – Accreditation, Certification, and Training

Management Platform
- Sub-Council updates
- Added an HVAC seat
- Fenestration Stadata
- Master electrician program review ongoing, adding code of ethics

ASCA updates
- Oversees permitting in unaccredited areas

Council priorities for 2017-2020
- Safety system performance/QMP ongoing
- Code development/adoption
- New Building and fire certification
- Updating website making it more user friendly
- ACT project improving service
**Question:** Will new electrical training/update be available and when?
**Answer:** Code update training for the Alberta Electrical Utility Code, 5th edition, is expected to be available in mid-2017.

**Question:** Will the orders/variances placed in the online registry be forwarded to the discipline administrators; as it is an ABC code requirement? Requires follow up.
**Answer:** Entering an order or variance into the registry fulfills the requirement for a copy of the order/variance to be sent to a Technical Administrator. Technical Administrators have full access to the Orders & Variances Registry.

**Question:** Is there a concern with APEGGA or other organizations and the transfer of information or plans that could occur through the Orders & Variances Registry?
**Answer:** The registry’s security features protect the information that is entered into the registry. Orders and variances in the registry (along with any uploaded files) can only be accessed by the SCO who created them, the accredited organization’s authorized user (for example, the QMP Manager), Technical Administrators at Municipal Affairs, and the Council.

**Presentation**

_MGA and Codes. Where do they connect?_

- Safety codes presentation to the MGA regional presentation displaying the need to work together
- Development and safety codes working together minimizing future issues
- Development needs to be approved first; building permit should be sure of the development approval before issuing building permit.
- Development permit required changing in use/change in excavation or stockpiling/
- Working on permitting on first nations/ ongoing
- Mandating secondary suites provided or guidance from the province? Affects the new home warranty and may void warranty if developed after the initial construction is completed.

**Question posed to the Group:** Is there value in hosting an hour session on the relationship between MGA/Codes?
**Answer:** The group seemed open to a discussion of this type.

**Question:** Will the Council mandate all municipalities to become accredited?
**Answer:** AMA and the Council are not looking at mandating accreditation for all municipalities at this time.

**Question:** There have been questions asked to municipalities if they are interested in mandating sprinklers, and it is thought this question is coming from municipal affairs? Is MA looking at making sprinklers mandatory?
**Answer:** The Chief Building Administrator is not aware of any initiative regarding making sprinklers mandatory, and confirms that the questions are not coming from MA. The installation of sprinklers is referenced within the ABC, and this is not anticipated to be changed in the near future.

**Question:** If Municipalities would like to add an additional safety measure of sprinkler systems, is there the ability to do so?
**Answer:** The Safety Codes Act does not permit a municipality to develop bylaws or
legislation which regulate something that is already regulated under the SCA. However, if legislation is introduced under other bodies such as the MGA, this could be done.

**Question:** In unaccredited areas that do not have development and safety issue or encroachment are created who is responsible?

**Answer:** If you are accredited or unaccredited you own the safety issue that is created as a municipality.

**Administrative Penalties**

- Update Dec. 1st, 2016 expected to be accepted by cabinet
- Additional tool to gain compliance; not to replace orders or prosecution.
- Administrative penalties team will assist municipality through the process to gain compliance.
- Phased in approach allowing for growth
- Intent is to modify behaviour to gain compliance
- Potential reasons for penalties, sale/installation of uncertified products with no certification. Builder/operator not compiling to the order/multi-storey not requesting occupancy from AHJ before occupancy of completed floors
- Administrative penalties will be subject to appeal
- Factors to consider
  - Severity of contravention: willful non-compliance/degree of negligence, failing to obtain permits, economic gain using non-certified products.
  - Timing of enforcement, within three years
  - Appealed within 30 days of service.
  - All parties involved will be notified of the decision made.
  - Proceeds go to the general revenue fund

**Question:** What public communication will be going out?

**Answer:** Website/QMP managers

**Question:** Who makes up the new home protection board?

**Answer:** MGA board is in consultation

**Question:** Uncertified products and how will it be managed?

**Answer:** There is currently no process for this; however a consultation within admin penalty team will determine how this will be reviewed.

**Question:** Is the new home warranty part of the admin penalty team?

**Answer:** No, the administrative penalties team is not connected to the new home warranty program but legislation is similar.

**Fire Alarm Monitoring as per ULC SS61**

- Provided all attendees with an information package on the ULC-SS61
- ULC-SS61 compliments the ULC Installation standard/verification standard *(see attached notes)*
- SS61 first referenced in the 2016 ABC
- Any two stage system must comply with SS61
- If the system has a flow switch must comply with SS61
- Building code states, monitoring system must have a certificate; fire code states that it must be maintained under SS61
- SS61 Monitoring station must - MUST MAINTAIN AND KEEP RECORDS
• S561 Key Signals- NO fire alarm verification signal needs to be transmitted in 60 sec/ trouble and supervisory signals contact customer within 5 min/ communication issues contact customer within 5 minutes

**Question:** Are there penalties for non-compliant monitoring station?
**Answer:** ULC fee for complaint and investigation conducted on the monitoring station.

**Question:** Are 911 call centers considered to be ULC compliant?
**Answer:** NO, they do not meet the ULC standard for a center.

- Can only issues certificates if ULC certified to do so
- Monitoring stations do not require to be local
- Existing systems approved under S527 may need upgrades such as protected wiring/electrical supply/separate electrical breaker/monitoring station contact info/grounded
- Digital phone service in the works; in development for new standard s561
- ULC certificate must be monitored by approved station and installed by ulc certified installer
- Certificate valid for 5 years/ if certificate is canceled the AHJ/building owner receives notice

**Question:** How are cancelled or expired certificates tracked and who is notified?
**Answer:** ULC mandated the monitoring station to notify the AHJ of cancelled or expiration of the certificate. ULC is currently developing an online database for the municipalities to verify which buildings have a certificate.

**Question:** How does a company become certified?
**Answer:** Competences and 3 complete compliant installations and current contract with ULC monitoring stations. ULC compliant companies are audited annually to maintain ULC certification.

**Question:** When do you need to upgrade existing equipment to the s561?
**Answer:** AMA has a fire Standata that provides guidance on the repair, maintenance, and the upgrading of an existing system. Link: [http://municipalaffairs.alberta.ca/documents/ss/STANDATA/fire/fci/FCI-08-06.pdf](http://municipalaffairs.alberta.ca/documents/ss/STANDATA/fire/fci/FCI-08-06.pdf)

**Overview of Safety Services Discussion Feedback**

**Feed-back Received**

- Affordable means to access the standards referenced in the ABC and other referenced standards.
- When will the professional development of SCO platform be introduced? After the completion and implementation of the sco tracking system.
- Storage tanks and who has the authority? Safety codes or Alberta Energy Authority
- Accredited corp. notifying the AHJ of activity governed by the SCA in their municipal boundaries? The AHJ has the authority to request that information from the accredited corp and a letter should/must be provided displaying that the corp. is responsible for those items.
- SCO mentorship and training, and should the training being provided move into an apprentice or internship to improve enrollment and interest in the safety system?

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**Representative, ULC**

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**David Ramsay**, AMA

**Allison Karch**, Safety Codes Council
ADJOURNMENT ***
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AMA Regional SCO Meeting Minutes

Concurrent Break-Out Session - Building

Wednesday October 19, 2016
1:00 pm – 4:00 pm
Kentwood Room

Facilitators

Joe Healy,
Building Inspector, AMA
Mike Hill,
Building Inspector, AMA

Tina Parker,
Senior Fire Technical Advisor, AMA

Fire Safety Plans & SCO Authority

- Construction fire safety plan now required as directed by AMA Standata
- SCO has an obligation on safety

Question: Smaller municipality what does the fire safety plan need for details?
Answer: The Standata has all the required details of items that are required.
Link for the construction fire safety plan template:
http://www.municipalaffairs.alberta.ca/documents/ss/STANDATA/fire/fci/FCI-09-03.pdf

Updates from Municipal Affairs

AMA

Barrier-free:

- Barrier-free guide has been completed waiting approval and will be available to all stakeholders once approved.
- Provided the draft Standata and mandatory form to consider barrier-free relaxation.
- If you have suggestion or comments on the draft forward to barrier-free administrator.

Question: Please provide clarification on the purpose of the form and its intent. Is or does the form asking for the opinion of the AHJ, and whether or not the AHJ agrees or disagrees with the presented relaxation?
Answer: The purpose of the form is to ensure that the applicants who submit an application for relaxation have met with someone in building permits to a) for the AHJ to list or describe the exact items to possibly be relaxed, b) to ensure that the applicant understands what is to be relaxed and why, and c) to make sure that I have the same plans that have been submitted to the AHJ has – a copy of the plans must have the AHJ’s initials. The Pre-assessment form should eliminate misunderstanding, falsified info on the B-F relaxation applications.

Comment for AMA: The form should provide an explanatory clause clearly stating that the AHJ is not making any decisions on the suggested relaxation.
**Question:** Will you be contacting the SCO for every proposal or only if you need additional clarification?

**Answer:** This form should eliminate the need to contact the AHJ for further clarification but if you want me to call then a note can be made on the form. Permits #’s are on the form and, therefore, duplicate copies of everything including the pre-assessment form (b-f application form is optional) will be in the AHJ’s possession and mine.

**Question:** Is there a way for the SCO to provide their opinion on the proposal should they agree or disagree with the proposal?

**Answer:** The SCO’s opinion can be expressed in the ‘reason’ area. An SCO can put in any information they feel is appropriate for the application.

**Discussion Topics from SCO’s**

Information packages supplied by municipal affairs to all attendees

**Question:** Will the information packages be available on the council’s website with the meeting minutes once they are posted?

**Answer:** Yes the meeting minutes as well as the Agenda and the Information Packages will be available to SCO’s through the Council’s website at: [http://www.safetycodes.ab.ca/SCO/Pages/Regional-Meetings.aspx](http://www.safetycodes.ab.ca/SCO/Pages/Regional-Meetings.aspx)

**Firewall Construction**
- Has been denied by the AHJ; they are currently applying for an alternative solution has any other SCO been involved in similar products?
  - NRC response suggested that under the NBC, yes the system could have combustible components. The ABC and the Standata specify all non-combustible.
  - B.C has approved this wall system by having complex building components, but relying on professional involvement and testing.
  - Key is to show and provide the required testing as listed in the code/Standata

**Question:** With the harmonization should we not be moving in the direction of the NBC?

**Answer:** This question is being reviewed by the CBA. A response will be provided at the next Regional Meeting.

**Ventilation Requirements for “Korean BBQ”**
- More information provided not just a singular flaming meal or drink at each table but cooking facilities at each table.
- Cooking facilities at each table NFPA now applicable at each station/table.

**Ventilation Requirements for “Hookah Bars”**
- 50% of the ventilation requirements of a smoking lounge; municipal consensus between Calgary and Edmonton.

**Question:** Is there merit or direction from the province in regards to water-pipe and a Standata bulletin?

**Answer:** Alberta Health is looking to include smoking related products such as water pipes to the Tobacco Reduction Act.
Air Barrier Poly Hats
- Poly hats create a void in the insulation, not approved for contact with pot-lights.
- Guidance from the province would assist with constancy province wide.
- Suggested 80% of SCO's require poly pans, 20% no.
- Pot-lights will be obsolete with the interdiction of LED lights no need for guidance from the province.
- As of November 1st, 2016 with the enforcement of the 9.36, products used in the air-barrier system will need to be approved to the CAN/ULC-S741.

Stairway Lighting Control
- Not discussed

Openings in Exposing Building Face
- NRC response supplied, maintaining egress at 0.35 m² and allowing slider type windows, with the intent of not allowing too large of a window.

Radon Gas

**Question posed to the Group:** Are radon mitigation systems being permitted?
**Comment from Group:** No permit is required as there is no part of a mitigation system which falls under the scope of the Code. The code speaks to rough-in only.

**AMA Response:** Although the rough-in or full mitigation system pieces may not fall under the scope of the ABC, the installation of a mitigation system will affect other areas of construction which do fall within the scope of the ABC, such as penetrations to a building envelope, flashing requirements for penetrations in an exterior wall, clearances to intake openings, etc. Therefore, it would be reasonable to ask for a permit for a radon mitigation system installation when not covered under the initial building permit application.

- Only the 900mm of clearances for an exhaust of the mitigation system applicable.

Fire Alarm Verification
- SCO receiving letterhead for verification, verification forms must meet the code requirements in appendix C.

9.36. Compliance
- Checklist to be published by Edmonton/Calgary/AMA codes and standards to assist and provide continuity throughout the province.
- Information required by Division C
- Professional schedules are still applicable in regards to NECB.
- Responsibility of the designer to show that the building complies.
- If they are changing schedule will it include part 5 and part 6
- Suggested changes currently sitting with AMA; proposed changes to schedules

Energy Efficiency Application
- Table A-9.36.1.3 energy efficiency compliance options for part 9 buildings.

Pull Stations Lower Floors Update
- NRC explanation/clarification provided intended for the common areas
not residential secondary exit.
  - See document within Information package for additional details.

Garage Wall construction
  - RSI requirements for attached garage walls must meet the same value as the perimeter envelope.
  - No consensus that the walls of an attached garage would not require to meet the 9.36 requirements due to the wording of 9.36.2.1 8) OR/AND
  - Nothing official some responded with the suggestion that it was not the intent of the code to increase RSI value of an unheated space.

**AMA Response:** All exterior walls of an attached heated or unheated garage are required to be provided with the RSI values provided in the applicable Table being used for the design of the house.

Bedroom Egress Windows
  - NRC response, 0.35msq open-able sash slider windows are acceptable as long as the window is not excessively large.

Gender Neutral Washrooms
  - Code only requires a number of washroom facilities per occupant load and care has to be taken in the design meeting all code requirements (eg. full height doors, barrier free.)

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AMA Regional SCO Meeting Minutes

Concurrent Break-Out Session - Fire

Wednesday October 19, 2016
1:00 pm – 4:00 pm

Rotary Room

Facilitators

Tina Parker,
Fire Technical Advisor, AMA
Tom Harnos,
Field Officer, AMA

Minutes

Discussion Topics / Questions

1) How do we treat the tow behind BBQ's and open air BBQ’s on a mobile deck?

Other than ensuring there are spatial distances between the BBQ's and any combustible products/structures, the propane cylinder is certified and the maintenance of the BBQ appears to be clean and maintained, there is nothing under the AFC that would require these types of food vendors to have a fire suppression system. Fire extinguishing device (i.e. fire extinguisher) should be in close proximity to the BBQ.

2) Easy Rock – interior applications:

http://www.easyrock.biz/support/ratings-certifications

The question was, has anyone seen this product being used on the inside of restaurants and does anyone have any information on it.

Intertek Canada's information:

All products certified through Intertek may be found on their website:
Select the company name and it will take you to the product and the standard in which it was certified to.
Easyrock is certified to ULCS102-2007 Surface Building Characteristics of Building Materials and Assemblies.

3) Any municipalities allowing the use of private dry hydrants?

Consensus was most municipalities do not allow for a private dry hydrant nor would any FD’s draft from them.
4) Is there a recognized product(s) for spray foam applications? Municipal Affairs does not endorse products, however, the following are products that have supporting documentation that indicates they meet a 2hr fire resistance rating:


Hilti CP660
https://www.hilti.ca/medias/sys_master/images/hb0/9196227002398/firestop.pdf

5) Are we aware of anyone in the insurance industry that will void insurance if a business does not comply with fire code requirements (i.e. failing to get their annual inspection done on their fire suppression over their deep fat fryer and there is a kitchen fire or failing to get their kitchen exhaust cleaned by a recognized cleaning exhaust company)?

We reached out to one of our contacts in the insurance industry and they provided the following response:

Property wordings can have a Property Protection Systems clause in them that requires the client to advise of any interruption to or flaw in any sprinkler system, fixed extinguishing system, or fire detection system. If the case set a precedent or there was a trend, then an article might be posted in magazines such as Canadian Underwriter.

http://www.canadianunderwriter.ca/

He was not aware of any incidents within the province of Alberta. Typically a denied claim is a private matter between the client and the insurer. In the event the insured disputes the claim and they proceed to court, such proceedings can become public and are searchable.

6) Phil Acklands Training Course.

http://www.philacklandtraining.com/

a. Who offers the program and provides the training in Alberta?

The 5 day program is only offered out of Fort Worth Texas. All other courses are on-line.

b. Who audits this program?

The Chief Fire Administrator (CFA) works with and approves training for commercial cooking exhaust systems. If there are any issues with this program or members working in the industry that have taken this program, SCO’s may contact the CFA with their concerns.
2.2.4. Qualifications

2.2.4.5. Commercial Cooking Equipment Exhaust Systems
1) Only qualified persons shall perform maintenance on commercial cooking equipment exhaust systems when they have obtained a certificate verifying they have completed an approved course of training in duct-cleaning procedures.

7) Tele-warrants:

The process has been set and approved, but with the OFC that is yet to be tested. The suggestion was made that if any municipality was at a point of using a tele-warrant they could share their challenges and successes with the group. The Tele-Warrant information is laid out in the Safety Codes Act section 48.1, but the "playbook" or steps are not. Can that loop be closed and a step by step process with applicable form be put together and made available to everyone.

8) Food Trucks:

There was an ask for a set of provincial standards for food truck operations/guidelines that municipalities could follow and build their own requirements/bylaws, they are looking forward to Kevan Jess's updated (hope to be a STANDATA, possible using the new NFPA 96 standards) on food trucks.

9) Fire SCO Scope of Practice:

Concerns were brought up about the proposed changes to the scope of practice to safety codes officers (fire), what those changes will be and how it will be delivered.

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Concurrent Break-Out Session - Electrical

Wednesday October 19, 2016
1:00 pm – 4:00 pm

Fairview Room

Facilitators
Kevin Glubrecht,
Senior
Electrical
Inspector, AMA
Clarence Cormier,
Chief
Electrical
Administrator, AMA

Minutes

Discussion Topics / Questions

INFO ALL

• Edmonton services: Problem is that houses are so close together that when the next house foundation is being put in, the utilities to the home next door are being exposed. The utilities are being damaged by excavators. The solution is to copy Calgary by piping the utilities to the property line with the pipe being strapped on the footing of the foundation. Landmark Homes wants the pipe installation to be right in the footing.

• Clarence is a member of the CSA Technical committee on the Canadian Electrical Code and attends the SCC / ESC CE Code WG Meetings as a guest. Section 10 is currently being rewritten, possibly adding single point utility ground

• Retrofits to luminaires with recertification contractors are leaving unnecessary parts in fixtures i.e. fluorescent ballast.

• Table 39 cannot be used when there is a service disconnect. Use Table 2 and 4 from service disconnect to panel.

• SCC says only utility companies can have Group B SCO’s

• If Utilities installing street lights to the utility code on private property, then they need to be rewired to the CE Code

• Apprenticeship and Industry Training, when they come to a site to check trade tickets they consider it a conflict of interest for their inspector to be the same trade as the trade they are inspecting. I.e. an electrician to check electrician tickets is not allowed, it could be a plumber or hairdresser checking a electricians tickets.
• A disconnect is not needed when the inverter connects right to the breaker on a PV system.

• Calgary unofficially/officially will be changing its requirements for AFCI in detached garages.

• Issues with light switches tripping AFCI

• Bathroom receptacles that are not located 1m from wash basin require AFCI protection.

Question & Answer Session

Q: Is a standard like, CSA Standard C22.3 No.7-15 Underground Systems, also adopted 1 year after it is published?
A: No, it is not adopted till the code that references the standard is adopted.

Q: What percentages of ESCO have their Group B?
A: Roughly 30%

Q: Are they developing somewhat of a template QMP for utilities?
A: Steve Eagles commented, there are things being worked on that he is not at liberty to discuss at this time.

Q: If a company that is an accredited corporation loses their certification who takes over?
A: ASCA

Q: Is the SCC taking away Group B DOP?
A: No, The Safety Codes Council can take away an organization's accreditation, this does not mean the safety codes officer loses their certification; however, the safety codes officer would no longer have their Designation of Powers with that company as that company is no longer accredited.

Q: Why is there nothing about the limit to approach underground cables in the utility code or other codes?
A: First Call says 1m and consult with your electrical provider

Q: Can you use USEB to run one building to another when the second building houses livestock?
A: Yes, but you require a bond to run with the USEB.

Q: How do we get access to the people involved in amending the Permit Regulation so there won’t be a big surprise when it comes out?
A: Mike from Leduc wants to know.

Q: Can the Errata for the rapid shutdown code rule to be sent out to the SCO’s?
A: See attached information at end of document.

Kevin Glubrecht,
Senior Electrical Inspector, AMA

Clarence Cormier, Chief Electrical Administrator, AMA
Q: Where is everyone taking PV education?
A: - NAIT
   - January 16, 2017, Electrical Conference
   - Randel in Edmonton?
   - SESA

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Concurrent Break-Out Session - Plumbing, Gas & Private Sewage

Wednesday October 19, 2016
1:00 pm – 4:00 pm

Northland Room

Facilitators

Larry Robinson, P&G Inspector, AMA
Joe Petryk, Senior PSDS Inspector, AMA

Minutes

Discussion Topics / Questions - INFO ALL

Plumbing:

Products: Soak Bath Products, products not certified.

Out of country mobiles that are not to code, MA was notified but nothing being done.

Corrugated (CSST) being installed by untrained persons. No striker plates being used.

Grease traps, various calls from SCO’s on dishwasher connections. High temperature chemical systems. Dish washer down stream of interceptor in many cases.

Sinks being drained to floor to a floor drain. Should not be allowed.
Indirect dishwashers designed to drain to a drain pan or hub drain. Not allowed.

Food trucks,

Temporary heat - SCO’s have the tools to enforce compliance.

Separate gas permits vs combined with project gas permit.

Emergency shut off, 25 from the vaporizer. Is the STANDATA out yet.

Venting issues between grease interceptors and oil and gasoline interceptors.
Height of vents above roof or ground level. (Exterior installations)
Pipe standard for inlets, outlet, vents. (ABS vs PVC)

Private Sewage:

Consideration should be made to move to a designer process for systems and not have installers do both.

Require policy and or clarification on easements in regards to PSDS installations.

Require clarification and guidance on work camp permit requirements.

Discussion on At-grade system installation issues.

Status of chief inspector position discussed. MA will be posting an open competition for the position shortly.

SOP HANDBOOK
Should be ready by the end of this year. RFP’s have been submitted and a vendor has been selected.

Development and PSDS. Issues around compliance on existing systems. Variances for compliance. Subdivision of parcels with existing systems. Discussed the idea of having accredited municipalities take a larger role in the review of variance applications within their jurisdiction.

ADJOURNMENT ***

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CAN/ULC-S561

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

By Frank Donati, Brian McBain & Al Cavers

CAN/ULC-S561, Installation And Services For Fire Signal Receiving Centres And Systems is without a doubt one of the most misunderstood standards in the lexicon of the ULC 5500 Series of Fire and Life Safety Standards. Simply stated, CAN/ULC-S561 promotes reliable fire alarm monitoring. This standard has been a Code requirement in Canada for over 10 years and yet every day Authorities find non-compliant systems and ULC, along with organizations like the Canadian Fire Alarm Association (CFAA), field daily inquiries about in conformity to, listing of, requirements for and understanding of CAN/ULC- S561. This article will endeavor to provide for a better understanding of this Standard, its place and requirements, in fire and life safety systems.

Why is it important?
In Canada, fire alarm system installations are required to meet the intent of the applicable National or Provincial/Territory Building Code. The Codes require that signals to the Fire Signal Receiving Centre are received and disposed of in a uniform manner.

NB: For this article, the National Model Codes 2010 shall be referenced.

The CAN/ULC-S561 Standard covers:
• Construction, operation, installation, inspection and tests applicable to fire signal receiving centres for fire protective signalling services utilizing fire signal receiving centre facilities and satellite centres and bridging centres;
• Construction and operation of a proprietary fire signal receiving centre; and
• Installation, inspection and tests applicable to a fire signal transmitting unit and its field device inputs at the protected premises.

Fire signal receiving centres come in two defined types; a Signal Receiving Centre and a Proprietary Fire Signal Receiving Centre. What’s the difference? A Signal Receiving Centre is a facility that receives alarm signals and at which trained personnel and service persons are on duty at all times.
• Think normal commercial businesses like an ADT or Chubb Edwards - these involve the monitoring of multiple properties and/or for multiple owners.
A Proprietary Fire Signal Receiving Centre is a facility, operated by the owner of the protected premises in which services encompassed in this Standard are monitored at all times by trained personnel.
• Think Specific business or facility with one owner, often having multiple sites and no third party monitoring. These are often Hospitals or Universities with large multi-building campuses with their own in-house policing/security service that can provide 24/7 monitoring. Also some national retail chains will provide their own monitoring of their facilities.

Codes and Standards
The National Model Codes govern the requirements for signals to the fire department, for new buildings it’s the National Building Code of Canada (NBC) and for existing buildings is the National Fire Code of Canada (NFC). The occupancies that are generally required to have CAN/ULC-S561 compliance are:
For Single Stage Fire Alarm System
- Group A -Assembly Occupancy - >300

For Two Stage Fire Alarm System
- All Occupancies at the Alert Stage initiation

All Occupancies with a Fire Alarm System that includes Water-flow devices

Note: Certain jurisdictions have added additional occupancies to these requirements.

Note: Alberta requires the owner of a building to provide evidence of compliance to the AHJ by means of a Fire Protective Signalling Certificate from a certified listing agency. This certificate must show the address of the building, the listed fire alarm installation company and the listed fire alarm monitoring company. The ULC Fire Protective Signalling Certificate Program meets these requirements.

The fire monitoring service for a building fire alarm system is mandated in Canada in the NBC Division B, 3.2.4.8 (4) and in the NFC Division B, 6.3.1.3. Further Code references for fire alarm monitoring service and CAN/ULC-S561 conformity are made through three other Code referenced ULC fire alarm standards.

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

2. and CAN/ULC-S537, Verification of Fire Alarm Systems in NBC 3.2.4.5.(2) contains within it the following:
   - CAN/ULC-S537-04 Appendix C2 (G) - Documentation to include the name and number of the Fire Signal Receiving Centre (CAN/ULC-S561), and the And the latest edition of CAN/ULC-S537-13, has expanded this section to impart the importance on fire monitoring:
   - (CAN/ULC-S561-13) NOTE: This standard presupposes that, where provided, the interconnection from the fire alarm control unit or transponder to the fire signal receiving centre shall comply with CAN/ULC-S561, Standard for Installation and Services for Fire Signal Receiving Centres and Systems. (Refer to Items A to I in Appendix C5.13, Interconnection to Fire Signal Receiving Centre.)

3. And CAN/ULC-S536, Inspection and Testing of Fire Alarm Systems in NFC Division B, 6.3.1.2.(1)

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

Fire Monitoring System
So, what is a fire monitoring system? It is a Fire alarm system or a sprinkler riser that is connected to a fire alarm transmitter for the purposes of transmitting fire alarm conditions from the protected property to a fire signal receiving centre in order to dispatch the correct responding authorities.
All 3 parts are required to make up a compliant system. This article focuses on Fire Signal Receiving Centres but will touch on the installation and periodic testing for them.

**Signal Receiving Centre vs. Proprietary**

There are two types of Fire Signal Receiving Centres (FSRC) as defined earlier in this article and CAN/ULC-S561 outlines how to construct, secure, equip and operate each of these types of Centres.

**Fire Signal Receiving Centre**

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

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

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

- Fire Alarm
- Fire Trouble
- Fire Supervisory
- AC Fail
- Communication Failures

**Proprietary Signal Receiving Centre**

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

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

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

**Installation of a Fire Alarm monitoring system**

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

- Transmitter that is CAN/ULC- S559  
(a Proprietary System is eligible to use CAN/ULC-S527 Compliant transmitter)
- Manufacturer’s Installation Instructions.
- Communication Channels
- Metallic raceway for interconnecting wires
- Supervision of circuits
- Installed as per CAN/ULC-S561
- Tested prior to occupancy

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

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

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

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

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

It’s not just the transmitted signals that are required to be accurate for compliance with CAN/ULC-S651 but also that the Contact Lists for each protected premise is up to date, that the proper fire department phone numbers are recorded (and not just 911) and that there is no system of verification of fire alarm signals prior to notification of the fire service to respond. CAN/ULC-S651 provides for the disposition of signals as follows:

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

A note on Standalone Sprinkler Risers

Standalone Sprinkler Risers that are monitored have the same time frame requirements but only transmit the following signals:
- Waterflow (alarm)
- Fire Trouble
- Fire Supervisory (pressure and gate valves)

As the communications systems of fire alarm systems are tested communication, active or passive, CAN/ULC-S561 lays out further required periodic testing which is also referenced in CAN/ULC-S536.
- Fire Alarm System - Annually
- Waterflow - Every two months
- Supervisory- Gate Valves, Pressure -Every Six months

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

What kind of certificate to submit? There are two options,
1. A document that is acceptable to the Authority Having Jurisdiction. Your local Building Official for new construction/installation and your Fire Official for existing buildings/installations. Or
Companies that are certified to CAN/ULC-S561 can be found on our ULC Online Directory at [http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/index.html](http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/index.html)
and using the following ULC Category Codes:
DAYRC- CAN/ULC-S559-04 Equipment
DAYYY- CAN/ULC-S561-04 – Shared Installation Co.
DAYIC - CAN/ULC-S561-03 – Shared and Full Service Fire Signal Receiving Centres

A Final Note
CAN/ULC-S561 is a vital component in the chain of Fire Alarm standards and is mandated by our Codes, yet is possibly one of the highest non-conformity issues with fire alarm systems that require monitoring. Although the National Codes have since 2005 explicitly required CAN/ULC-S561 conformity, for the upcoming 2015 National Codes ULC has submitted an Appendix Note to further clarify the interconnection between it and CAN/ULC-S524 Installation of Fire Alarm Systems so that Code users and enforcement authorities ensure complete conformance with Code requirements. The draft Appendix note submitted (and as of this writing not yet finalized by the Codes Commission) is: CAN/ULC-S561, “Installation and Services for Fire Signal Receiving Centres and Systems,” which is referenced in Sentence 3.2.4.8.(4), and CAN/ULC-S524, “Installation of Fire Alarm Systems,” which is referenced in Sentence 3.2.4.5.(1), go hand-in-hand: conformity to CAN/ULC-S561 entails conformity with the fire alarm system components required in that standard. These components include fire alarm transmitter (signal transmitting unit), interconnections and communication path.

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

ULC Regulatory Services
For additional information or questions ULC Regulatory Services is here to help.
Contact Brian McBain by email at Brian.McBain@ul.com or by Telephone at +1.613.751.3404 or Pierre McDonald by email at Pierre.McDonald@ul.com or by telephone at: +1.780.419.3202

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

ULC...Working for a Safer World
CERTIFICATION BULLETIN 2014-02

UL ENHANCED MARK FOR CANADA

Products today must meet a diverse spectrum of certification and compliance requirements. On May 16, 2013, UL launched the enhanced Certification Mark to help the Authorities Having Jurisdiction (AHJs), manufacturers, retailers and consumers better understand the scope of certification for a given product. All currently existing versions of UL’s Listing and Classification Marks remain valid and should continue to be accepted. This bulletin addresses visual identifiers of the enhanced Certification Mark in the Canadian marketplace.

This enhanced Mark is a modular design that acts as a singular identifier describing product’s scope of Certification, Country Code and unique identifier (also known as the UL file number). The enhanced Certification Mark utilizes the familiar “UL in a Circle” Mark as the central unique design element consistent to all UL’s marks to which the information module(s) are added. In compliance with the Standards Council of Canada CAN-P-1500-2013, clause 4.2.2, UL has introduced the “CA” Country abbreviation code provided in ISO 3166 to identify products evaluated to Canadian standards. As inspectors across the country are very familiar with the “c” at the 8:00 o’clock position, this bulletin is to provide some additional guidance regarding the enhanced Certification Mark’s use of the “CA” Country identifier.

The Marks Hub is UL’s official source of information about the enhanced mark and is free to use. We encourage you to utilize the resources there for the latest and most up to date information. For additional information or for answers to specific questions, please contact: Mr. Pierre McDonald, Senior Regulatory Representative
T: 780.419.3202, M: 780.236.0131, Email: pierre.mcdonald@ul.com

The following examples illustrate the enhanced Certification Marks and the “CA” Canadian Identifier. Country Identifiers will appear within the module right after the Attributes describing the scope of Certification.

Yours truly,

Underwriters Laboratories of Canada Inc.

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Notes:
(1) For information about the Standards Update Service, go to shop.csa.ca or e-mail techsupport@csagroup.org.
(2) Terminology corrections in Update No. 2 to the French version of the Canadian Electrical Code, Part I do not apply to the English version.

Title: Canadian Electrical Code, Part I, Twenty-third Edition — originally published January 2015

Revisions issued: Update No. 1 — November 2015

The following is a list of errata that have been identified in the 2015 edition of the Canadian Electrical Code, Part I:

Rule 10-602 — “... in Rule 2-112(2),” should read “... in Rule 2-116(2),”.

Appendix A — The title of this Appendix should read “Safety standards for electrical equipment”.

Appendix B Note to Rule 64-218 — Revise the title to read “Rule 64-060(12)”; and delete “[see Rule 64-060(12)]” at the end of this Note.

Move this Note to follow Appendix B Note to Rule 64-060(10).

Appendix C, Annex C, Item(2)(l) — Insert “?” at the end of the second sentence.

Index — “Hazardous locations”, “Class II” — “J18-200, to J18-275” should read “J18-200 to J18-274”.

Index — “Hazardous locations”, “Class III” — “JJ18-300 to J18-377” should read “J18-300 to J18-376”.