



**MINUTES OF THE
SECOND ELECTRICAL SUB-COUNCIL MEETING OF 2019**

DATE: May 6, 2019

TIME: 9:30 a.m. to 4:30 p.m.

LOCATION: Safety Codes Council Office, Edmonton

PRESENT: *Sub-Council Members*

Gerry Wiles, Chair
Scott Basinger, Vice Chair – North
Don Bradshaw
Patrick Conway
Hussein Desouki
Tim Driscoll (until 4:05 pm)
Adam Ghani
Todd Grayson
Glenn Hedderick, Vice Chair - South
Ken Hood
Nicolas Leblanc
Tyler Masson
Lori Monaghan
Brian Townsend (until 3 pm)
Barry Voogd

Safety Codes Council

Allison Karch, Kathryn Derkach, Susan Rossmann, Erin Stroud, Peter Thomas

Alberta Municipal Affairs

Clarence Cormier, Bob Hall, Jon Elliott, James Orr

REGRETS: John Briegel, Bert DeBruin

GUEST: Dean Viens

RECORDER: Sandi Orr

2019 MEETINGS: September 16, November 18

CONFERENCE: May 29-31

1. Meeting Opening

The Chair called the meeting to order at 9:30 a.m. Safety and evacuation procedures were explained and a round table introduction was held. Members were reminded that the primary duty of all Council Members is to act in the interest of safety in the built environment for the benefit of all Albertans.

1.1 Agenda Adoption

The agenda was included in the portal and reviewed. The following additions were made:

- 4.14. In Camera Discussion
- 4.15. Master Electricians Working Group Report

Adam Ghani / Glenn Hedderick moved to adopt the agenda, as amended; CARRIED

1.2. Adoption of February 11, 2019 Minutes

The minutes were included in the portal and reviewed.

Scott Basinger / Nicolas Leblanc moved to adopt the minutes of the February 11, 2019 meeting, as circulated; CARRIED

2. Matters for Decision

2.1. Appointment of Bernie Budinski to the Master Electricians Working Group for a three-year term, effective immediately

Glenn Hedderick / Adam Ghani moved to appoint Bernie Budinski to the Master Electricians Working Group for a three-year term, effective immediately; CARRIED

3. Review Matters Arising/Action List

	Item	Action	Date	Responsible	Status/Update
1.	Crossover with Building Discipline	The following topics were brought forward to the BSC for discussion: <ul style="list-style-type: none">• Exterior walls on new construction and not breaking the building envelope	May 7/18	Wiles	Completed; this item will be removed from the action list
2.	CE Code-072 – Concrete Encasements	Consider drafting a Proposed Change to CE Code Part 1 UPDATE: The working group is still working on a proposed change for the next code cycle. This will be brought	Feb 6/17	CE Code Working Group	Proposed change is still being drafted

		to the sub-council at a future meeting.			
3.	Pictograms of Certification Marks	Bring the following item to the TCC: Consider including all pictograms of certification marks and special inspection labels that are acceptable for use in Alberta, updated annually, include the applicable Standards Council of Canada links, along with including information about Recognized Component marks and the limitations on their use. UPDATE: No update available from AMA Management. Industry believes the previous version of the Electrical STANDATA was very useful and would like it to be reinstated.	Nov 20/17	Wiles	Inn progress
4.	Medium Voltage Terminations	Forward the Medium Voltage Terminations issue to the CE Code Working Group. UPDATE: A discussion was held regarding the magnitude of the issue and the unlikeliness of the Working Group being able to resolve it.	Feb 5/18	Basinger	On agenda under CE Code WG Report
5.	Unintended Omission – CE Code 2015 Rule 10-808	The matter was left in AMA’s hands to address the omission and AMA will continue to keep the sub-council informed. UPDATE: This will be addressed during the STANDATAs being updated based on the new code.	Nov 5/18	Elliott/Cormier	Published, This item will be removed from the action list
6.	Solar PV CE Code Interpretation Document	Suggest at SCO Continuing Education Working Group to work with educational institutes to develop a course regarding Solar PV inspections for both residential and commercial installations that would be a continuing education opportunity for interested Electrical Group A SCOs. UPDATE: A few continuing education opportunities have been added to the website. Please advise Brian Townsend when other opportunities arise.	Nov 5/18	Townsend	Completed; this item will be removed from the action list
7.	AEUC/CE Code WG Joint Meeting on Demarcation	Recommendations about the demarcation point were presented to the Electrical Administrator for consideration of inclusion in a STANDATA.	Nov 5/18	Cormier	On agenda under AEUC WG Report

8.	Participation on CSA Section 64 Committee	Tim Driscoll offered to follow up with the Section 64 Chair to see if a vacancy currently exists. UPDATE: There is a member from Alberta on the committee, but they would consider another industry representative from Alberta	Nov 5/18	Driscoll	Completed; this item will be removed from the action list
9.	Definition of a Plenum	Clarification was requested from the Provincial Building Administrator about definition of a plenum.		Wiles/Chang	On agenda under TCC Report

4. Matters for Discussion

4.1. Pressure Equipment Sub-Council Recommendations regarding Refrigeration Systems

A Fernie investigation report was included in the portal, along with excerpts from the PESC minutes and the referenced AB-615 document. The Sub-Council was asked to review the recommendations from the PESC to provide feedback on whether there are any concerns from the electrical discipline’s perspective.

It was suggested that the following additional reference documents could be considered:

- CSA Z462 Workplace Electrical Safety
- CSA Z460 Hazardous Energy Isolation
- CSA Z463 Electrical Equipment Maintenance

The requirement for pressurization in response to fire alarms in CAN/ULC S1001-11 Integrated Systems Testing of Fire Protection and Life Safety Systems and Fire Protection Commissioning, which is referenced in the building code, was mentioned. It was suggested that a similar commissioning approach could be taken in refrigeration plants regarding ventilation.

4.2. SPE 1000-19 (relates to Section 2 STANDATA re. Misapplication of Approval Marks or Labels)

It was reported that the SPE 1000-19 Model Code for the Field Evaluation of Electrical Equipment is being developed. If published, it may provide impetus to revisit the wording in the Section 2 STANDATA relative to the Misapplication of Approval Marks or Labels. It was clarified that the draft SPE 1000-19 specifically states it doesn’t apply to hazardous locations.

4.3. Arc and Ground Fault Protection in PV Inverters

A confidential document titled Arc and Ground Fault Protection in PV Inverters (March 2019) was included in the portal as information. An in depth discussion was held regarding the contents of the report and it is believed that the writers’ issue pertains more to the standard than the STANDATA on the topic. It is believed that the initial decision of the sub-council remains valid and no action is needed.

4.4. EV Charging

Relative to Electrical Vehicle Charging, some believe that a maximum rating should be considered and others believe a lower rating could be accepted if the field setting mechanism is not readily accessible (e.g. a special tool would be required so the homeowner would not be able to change) and a label is attached accordingly. AMA is looking for feedback about whether the sub-council believes that the issue should be addressed in a STANDATA.

It was further reported that manufacturer's instructions are clear that an electrician is required to set the load.

Ken Hood / Glenn Hedderick moved to recommend that a STANDATA related to labeling of electrical vehicle charging stations be considered by the Administrator; CARRIED

4.5. BOCCI Receptacles

Some SCOs believe BOCCI receptacles are non-compliant because, in their opinion, they do not meet the requirements of 12-3014. However, the manufacturer maintains that their certification states that the product is tested and certified to the CSA C22.2 No. 42 for use in Canada. There may be a conflict between what Part I and Part II considers accessible.

A special tool is used to pull out the receptacle and therefore it was considered accessible. It was recognized that there is a need to follow the manufacturing instructions, two inspections may be needed (rough-in and final), SCOs need to have access to the tool to do a final inspection, and wiring needs to be long enough to allow the receptacle to be pulled far enough out of the wall so that the terminations are accessible.

Definitions were reviewed and the term *Accessible* (as applied to wiring methods) means:

- a) not permanently closed in by the structure or finish of the building, and
- b) capable of being removed without disturbing the building structure or finish

Additional research may be necessary by talking with other provinces and territories to find out if they are allowing these receptacles and whether CSA is considering any code changes relating to this type of product.

The Administrator will conduct further research and bring it back to the sub-council. [Cormier]

Tim Driscoll offered to conduct other research relative to code development. [Driscoll]

4.6. Microwave AFCI Nuisance Tripping

This item was deferred due to time constraints.

4.7. AEUC Working Group Report

Work will begin shortly on proposed changes to the 2021 version of the AEUC.

4.7.1. Demarcation Wording

A report was provided to the AEUC at their last meeting and after reviewing the wording, additional changes were brought forward to the sub-council.

After an in depth discussion of the proposed changes, it was believed no changes are needed to the original suggested wording for the STANDATA. This item was accepted as information with no further action required.

4.8. CE Code Working Group Report

The Chair provided a report from their last meeting in Red Deer on April 16, 2019. An overview was provided on outstanding topic:

- The Code Change Request for CEC-072 regarding concrete encased duct banks is still in progress
- CEC-080 regarding field approvals – work is complete, the Administrator reported the STANDATA will be issued
- CEC-081 regarding the demarcation point between Part 1 and AEUC – work is complete, the Administrator reported the STANDATA will be issued

CEC-082 – Medium Voltage Terminations

An overview was provided and it was explained that there is no CSA component standard published for this product and many medium voltage termination kit manufacturers are “self-certifying” to IEEE 48—an industry recognized document. It was noted that some failures have occurred but they may be due to craftsmanship or inappropriate application of the product.

Discussion was held regarding the use of uncertified product, especially if no product standard exists to certify it to. An SCO should not be put in a position of signing off on an uncertified product if they don’t have a benchmark by which to determine equal or greater safety performance. If a Certification Body or Inspection Body is not being used, then perhaps it should require professional involvement. It was recognized that this is a Canada-wide issue.

After an in depth discussion of the issues, it was agreed that AMA would look into the topic of uncertified equipment, including that used for medium voltage terminations. [Cormier / Orr]

CEC-083 – Research and report back to ESC on the use of OBIEC for Municipalities – Signals and Street Lighting

A report was provided on the working group’s investigation into the potential for using Part 4 (OBIEC) for transportation signals and street lighting in municipalities.

It was explained that from a regulatory perspective, the Government would have to change the regulation to adopt Part 4 for use in Alberta. If a recommendation were to be brought forward, it would need to include strong rationale for the change, including what issues would be resolved, justification of any recommended restrictions or amendments, and potential impacts of the change.

Documentation of research done to date will be added to the portal and any further information will be brought to a future ESC meeting. [Basinger]

CEC-084 EIAA 2019-11

The issue regarding where to ground identified conductors at each outbuilding on a farm site was brought up during the EIAA and brought to the working group as information.

CEC-085 – CEC Appendix A – IEC61508-3 and IEC 61511 Added in Error – Recommendations

The issues was discussed by the Working Group and a recommendation was brought forward.

Scott Basinger / Tim Driscoll moved to recommend that an Information STANDATA to highlight IEC documents that were referenced in error be considered by the Administrator; CARRIED.

This led to a discussion regarding new standards and it was explained that when a new standard is published it may be used but it cannot be mandated until referenced in the code.

CEC-086 CEC Rule 8-500 EV Management Systems

A request was received from a proponent on what documentation must be provided. The proponent advised that they intend to provide inspector and owners with the following:

- An operating manual for the energy management system and EVSEs
- A copy of the certification record or the SPE-1000 Inspection report for the EVSE
- A management plan that documents the safety attributes of the Energy Management System and how it controls the Electric Vehicle Supply Equipment Loads
- Documentation showing the utility has been made aware of this installation

After discussion, it was agreed that what the proponent is suggesting seems reasonable. The Working Group Chair will communicate this to the proponent. [Basinger]

4.8.1. Solar PV Rapid Shutdown and Switch Location

This item was discussed at the solar industry group and documentation was included in the portal. The issue was explained and discussed.

Don Bradshaw / Scott Basinger moved to request that the Administrator consider a Variance STANDATA to address this issue; CARRIED

The Administrator also agreed to submit a code change request to Part 1. [Cormier]

4.8.2. Solar Action Item 5 Rapid Shutdown Equipment

This item was discussed at the solar industry group and documentation was included in the portal. The issue was explained and discussed.

Tim Driscoll / Scott Basinger moved to request that the Administrator consider a Variance STANDATA to address this issue; CARRIED

4.8.3. Solar Action Item 7 Racking Equipment Approval

This item was discussed at the solar industry group and documentation was included in the portal. The issue was explained and discussed. It was noted that there is a need to be cognizant of differences between the NEC and the CE Code.

Tim Driscoll / Nicolas Leblanc moved to request that the Administrator consider a Variance STANDATA to address this issue; CARRIED

The Administrator agreed to submit a code change request relative to the Appendix B Note.

[Cormier]

4.9. Hazardous Locations Working Group Report

Revisions to the Terms of Reference are still in progress. There is a great deal of code review work to be done because of substantive changes to the code and differing opinions about Appendix E.

A challenge was explained regarding the code changes related to driving a vehicle up to a pump, causing you to bring an ignition source into a hazardous location. The Working Group Chair is attempting to make contact with the new CSA Code Committee Chair to initiate changes in Section 20.

Tim Driscoll / Ken Hood moved to appoint Patrick Conway to the HazLoc Working Group; CARRIED

4.10. AMA/Administrator Report

The Director of Codes and Standards—Building, Fire, Energy and Accessibility and the Director of Codes and Standards—Mechanical were welcomed to the meeting and provided a report on behalf of Alberta Municipal Affairs.

It was noted there is a new Minister, Kaycee Madu, and New Deputy Minister, Meryl Whittaker.

Automatic Adoption of Codes— approximately 12 months after the publication date

All disciplines, with the exception of the Elevating Devices Code, now have the wording in their regulation to allow for automatic adoption.

Relative to automatic code adoption, the following was noted:

- Notices are extremely important to ensure that industry knows the current code
- The Government will be limiting variation to national model codes and if changes are requested justification will be required on why the change is needed, cost implications, etc.
- An explanation was provided regarding national code cycles and the need for the sub-councils' work to occur each year as the code is being developed and publicly consulted on
- There is commitment from several code writing bodies to provide changes in advance of publication
- In the Electrical discipline, a memorandum of revisions is provided to the Administrator and shared with the sub-council

STANDATA

It was explained that the word STANDATA is just a document name for Provincial Interpretations, Information Bulletins or Variances. These documents are owned by Alberta Municipal Affairs, but the sub-councils are asked for input. Technical content can be provided to Municipal Affairs by sub-councils or other groups, but STANDATAs are drafted solely by AMA staff. Any content developed by a working group needs to come to the sub-council for recommendation to AMA.

A discussion was held about the need for STANDATA to keep up with the current code and published at the same time. The objective will be that only current STANDATA are going to be available on the AMA website. A new link to the AMA website was included in the portal.

It was questioned about the Certification Marks STANDATA which no longer contains examples of certification marks. It was explained that maintaining the certification marks in the STANDATA creates a substantive amount of work and it gets out of date very quickly. However, it was noted that this may be the most used STANDATA by Electrical SCOs and it would be appreciated, even if only updated once a year. The Department will take another look at it specifically for the Electrical discipline. [Elliott]

Questions arose about jurisdiction-wide variances by accredited corporations. It was clarified that variances are alternative solutions, not directives—you don't have to use it—and a variance can't be used to change the code. However, if using the variance, you must adhere to the terms and conditions included in the variance.

It was questioned whether old STANDATAs could be archived on the website similar to the Building and Fire disciplines. It was suggested this could be considered and further discussion should be held by the sub-council and Administrator.

An in depth discussion was held regarding the use of STANDATAs, including when they should be used for clarification or when other means, such as training, can be used to rectify issues.

4.11. BSC Liaison Report

The BSC Liaison Report was included in the portal as information.

4.12. TCC Report

The TCC Report was included in the portal as information.

4.13. Council Updates

The following was reported:

- A brief update on the Conference was provided
- Starting in the Fall, the agenda will be posted 2 weeks in advance of the meeting; all requests for additions need to be submitted to the Chair at least 3 weeks in advance

4.14. In-Camera Discussion

An in-camera discussion was held. The meeting came out of being in camera and the following motion was presented.

Brian Townsend / Scott Basinger moved to recommend to the Board the creation of a separate sub-council to focus on Electrical Transmission and Distribution relative to the Alberta Electrical Utility Code and to revise the scope of the existing Electrical Sub-Council to focus on Electrical Installations relative to the CE Code Part 1; CARRIED

4.15. Master Electricians Working Group

It was reported that there is a new Administrator for Master Electricians and an update was provided on membership.

5. Meeting Finalization

5.1. Meeting and Agenda Feedback

There was nothing new to bring forward regarding the agenda.

5.2. Next Meeting

The next meeting was reconfirmed for Monday, September 16, 2019 at the Council office at 9:30 a.m.

5.2.1. 2019 Conference and AGM: May 29-31, Rimrock Hotel, Banff

Members were reminded of the Conference in Banff from May 29 to 31, 2019.

5.3. Meeting Adjournment

The meeting was adjourned at 4:30 p.m.

-- NEW ACTION ITEMS --

4.5. BOCCI Receptacles

The Administrator will conduct further research and bring it back to the sub-council. [Cormier]

Tim Driscoll offered to conduct other research relative to code development. [Driscoll]

4.8. CE Code Working Group Report

CEC-082 – Medium Voltage Terminations

After an in depth discussion of the issues, it was agreed that AMA would look into the topic of uncertified equipment, including that used for medium voltage terminations. [Cormier / Orr]

CEC-083 – Research and report back to ESC on the use of OBIEC for Municipalities – Signals and Street Lighting

Documentation of research done to date will be added to the portal and any further information will be brought to a future ESC meeting. [Basinger]

CEC-086 CEC Rule 8-500 EV Management Systems

After discussion, it was agreed that what proponent is suggesting seems reasonable. The Working Group Chair will communicate this to the proponent. [Basinger]

4.8.1. Solar PV Rapid Shutdown and Switch Location

The Administrator also agreed to make a proposed change to Part 1. [Cormier]

4.8.3. Solar Action Item 7 Racking Equipment Approval

The Administrator agreed to submit a code change request, relative to the Appendix B Note.

[Cormier]

4.10. AMA/Administrator Report

It was questioned about the Certification Marks STANDATA which no longer contains examples of certification marks. It was explained that maintaining the certification marks in the STANDATA creates a substantive amount of work and it gets out of date very quickly. However, it was noted that this may be the most used STANDATA by Electrical SCOs and it would be appreciated, even if only updated once a year. The Department will take another look at it specifically for the Electrical discipline. [Elliott]

-- MOTIONS --

1.1 Agenda Adoption

Adam Ghani / Glenn Hedderick moved to adopt the agenda, as amended; CARRIED

1.2. Adoption of February 11, 2019 Minutes

Scott Basinger / Nicolas Leblanc moved to adopt the minutes of the February 11, 2019 meeting, as circulated; CARRIED

2.1. Appointment of Bernie Budinski to the Master Electricians Working Group for a three-year term, effective immediately

Glenn Hedderick / Adam Ghani moved to appoint Bernie Budinski to the Master Electricians Working Group for a three-year term, effective immediately; CARRIED

4.4. EV Charging

Ken Hood / Glenn Hedderick moved to recommend that a STANDATA related to labeling of electrical vehicle charging stations be considered by the Administrator; CARRIED

4.8. CE Code Working Group Report

**CEC-085 – CEC Appendix A – IEC61508-3 and IEC 61511 Added in Error – Recommendations
Scott Basinger / Tim Driscoll moved to recommend that these IEC documents were referenced in error and an Information STANDATA to highlight this error be considered by the Administrator; CARRIED**

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Don Bradshaw / Scott Basinger moved to request that the Administrator consider a Variance STANDATA to address this issue; CARRIED

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4.14. In-Camera

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