



# Safety Codes Council

## MINUTES OF THE FIRST ELECTRICAL SUB-COUNCIL MEETING OF 2021

**DATE:** February 8, 2021

**TIME:** 8:30 a.m. to 3:05 p.m.

**LOCATION:** Videoconference

**PRESENT:** *Sub-Council Members*

Gerry Wiles, Chair  
Scott Basinger, Vice Chair – North  
Patrick Conway  
Bert DeBruin  
Hussein Desouki  
Gerry Doan  
Tim Driscoll  
Ken Forbes  
Adam Ghani  
Todd Grayson  
Glenn Hedderick, Vice Chair – South  
Ken Hood  
Nicolas Leblanc  
Tyler Masson  
Lori Monaghan  
Brian Townsend  
Barry Voogd  
Ed Knaggs

*Safety Codes Council*

Susan Rossmann, Kathryn Derkach, Jennifer Johnson

*Alberta Municipal Affairs*

Clarence Cormier, Bob Hall

**REGRETS:** John Briegel

**GUESTS:** Duane Leschert (Item 4.2)

**RECORDER:** Jennifer Johnson

**2021 MEETINGS:** April 12, June 7, October 4, December 6

## 1. Meeting Opening

The Chair called the meeting to order at 8:30 a.m. A round table introduction was held and teleconference tips were provided. Susan Rossmann provided clarification around the process for bringing items to the Sub-Council and Municipal Affairs.

### 1.1 Agenda Adoption

The following items were added to the agenda:

- 4. 8 Proposed STANDATA for section 2: ma-standata-18-cecb-2, tsd comments
- 4.9 Proposed STANDATA for section 18: modifications to existing section 18 STANDATA
- 4.10 Proposed STANDATA for seals: seals STANDATA proposal r2
- 4.11 Proposed provincial variance on 18-150 2): 2021 CE Code HazLoc Prov Variance 1

**Glenn Hedderick/Tyler Masson moved that the agenda be adopted, as amended; CARRIED**

### 1.2 Adoption of the November 23 Minutes

**Brian Townsend/Nicolas Leblanc moved to adopt the minutes of the November 23, 2021 meeting, as circulated; CARRIED**

## 2. Matters for Decision

### 2.1. Closed Session

#### 2.1.1. Appointment of Brad Dougherty to represent Labour

**Nicolas Leblanc/Barry Voogd moved to request candidates from the new nominating organizations before selecting a representative for Labour; CARRIED.**

### 2.2. New Electrical Utilities Sub-Council Matrix

The proposed matrix was created by a panel of stakeholders and identifies 14 industry segments to be represented on the Electrical Utilities Sub-Council. The following was discussed:

- There was discussion around including municipalities and it was explained that the municipal owned utilities seats would provide that perspective
- Members were reminded that making the sub-council too large can make it difficult to get quorum, find hosting space, and could hinder productive conversation
- The panel felt that an APEGA representative was not required as at least one of the other seats will likely be filled by an engineer
- It was noted that ATCO will hold two seats, however it was agreed that distribution and transmission operate as two separate entities and will provide different perspectives
- Contractors were not included as any work they do on a Part 3 system is at the direction of a utility
- Discussion around adding an alternative energy seat, it was noted that those installations are being put in under Part 1 so the panel felt it wasn't necessary at this time

- Technical schools were not included as there is only one program and the utilities provide training in house
- Questions arose regarding whether manufacturers should be included, it was explained that there are many different types and it was felt since all couldn't be included it wasn't necessarily beneficial to include just one; will look into if there is an organization that represents all manufacturers  
[Townsend]
- Suggestion to change Accredited Corporations to "Energy Industry" will be considered  
[Townsend]
- Suggestion that CLAC be included as a nominating organization for the Journeyman/Lineman Industry Segment; will look into whether or not the contractor lineman are members  
[Townsend]
- Will look into if there is an organization that represents the Telecom companies  
[Townsend]
- Nominating organizations for Electrical Safety Codes Officers should be EIAA  
[Council Staff]
- Wording should reflect the current definitions (ie. Powerline technician and Power System Electrician)  
[Council Staff]

**Todd Grayson/Tim Driscoll moved to recommend to the Board the acceptance of the Electrical Utilities Sub-Council Matrix with edits; CARRIED.**

### 2.3. Electrical Sub-Council Matrix

There was a discussion around including more potential nominating organizations to the Labour seat to ensure a more diverse pool of candidates.

**Adam Ghani/Nicolas Leblanc moved to recommend to the Board the removal of the Large Electrical Utilities, Rural Electrification Areas, and Small/Municipal Electrical Utilities seats from the Electrical Sub-Council matrix and the addition of CLAC and MERIT to the nominating organizations for the Labour seat; CARRIED.**

### 3. Review Matters Arising/Action List

|    | Item                               | Action   | Date Initiated | Responsible | Status/Update  |
|----|------------------------------------|--|----------------|-------------|--|
| 1. | CE Code-072 – Concrete Encasements | Consider drafting a Proposed Change to CE Code Part 1<br><b>UPDATE:</b> Scott is working on a proposed change for the next code cycle (2024). This will be brought to the sub-council at a future meeting. | Feb 6/17       | Basinger    | Ongoing  |
| 2. | Multi Family Unit Site Bonding     | It was decided that the affected municipalities will meet with the proponent to discuss the issue further.   | Jan 13/20      | Wiles       | Proponent returning to work this week. Gerry will follow up. |

|    |                           |   |           |         |                      |
|----|---------------------------|---|-----------|---------|----------------------|
| 3. | Farm Services<br>STANDATA | Administrator to work on this with information from September meeting | Nov 23/20 | Cormier | Item 4.3.4 on agenda |
|----|---------------------------|---|-----------|---------|----------------------|

## 4. Matters for Discussion

### 4.1. Submerged Equipment

There was a proposal from a sub-council member that explains that since industrial sites do their own testing and evaluations, there is a proposed clarification to the Appendix B note stating that equipment that has been exposed to ingressive water needs to be evaluated by an organization acceptable to the AHJ. The following was discussed:

- The rule is being introduced due to flooding events in recent years and the need is understood, however industrials in Alberta disagree with the Appendix B note
- It was suggested that arc faults also need to be evaluated, is not just about flooding
- Some feel that since AHJs have to accept the equipment when it's first installed it makes sense they should have to accept it when it's reintroduced after being repaired
- If the industrial disagrees with the outcome there are dispute resolution methods that exist
- Not all industrials are of the same calibre, there are some that may not be capable of evaluating their own damaged equipment
- If this is what is recommended by CSA then it should be the same in Alberta
- Document was reviewed showing how submerged equipment is handled in different provinces for residential and commercial properties

**Adam Ghani/Patrick Conway moved to form a working group to review how to handle flooded and submerged equipment in residential, commercial and industrial settings; CARRIED.**

**Brian Townsend/Scott Basinger moved that membership for the working group would include Tyler Masson, Adam Ghani, Scott Basinger, Nicolas Leblanc, Patrick Conway, Hussein Desouki, Gerry Doan, and Tim Driscoll with support from Municipal Affairs as needed; CARRIED.**

**Tyler Masson/Hussein Desouki moved that the working group would provide a response by the next sub-council meeting (with possibility for extension); CARRIED**

### 4.2. Submission Regarding C22.1-18 Rule 4-004 and Table 5D

The following was discussed:

- Initial question was what happens with more than two layers and the answer would be that engineering involvement is required
- Without engineering involvement, you can only use the tables that exist in the Canadian Electrical Code
- While doing research on this, came across a paper put out in 2014 regarding thermal analysis of power cables that may be of interest to others: Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations, Ali Sedaghat, Student Member, IEEE, and Francisco de León, Senior Member

- The research raised a lot of doubts about Table 5D and the possibility that the numbers are too lenient
- Scott Basinger will prepare a letter to respond to the proponent and forward to Council staff

[Basinger]

- Revisions for Tables D8 – D11 were also discussed
  - Tried to reverse engineer the assumptions as it's unclear what the materials were for each table
  - Some are straightforward but there are a lot that are critically important that are not stated in the code book
  - Have prepared a spread sheet which will be shared with members and with CE Code working group for review
  - Aiming to have review complete by Fall 2021

[Basinger]

### 4.3. Working Group Reports

#### 4.3.1. Master Electricians

A presentation was given regarding the Master's Advisory Working Group and the following was discussed:

- Please reach out to Council staff if you would like to be involved in the Master Electrician Exam Development working group or the Master Electrician Program Review Working Group [All]
- All exams are currently being done online with a multiple choice format

#### 4.3.2. AEUC

The following was discussed:

- Group is still working through updates to the 2021 AEUC release
- Most of sections have been looked at already, still working on overhead
- Hope to have drafts done by early spring and aiming for possible submission by Fall 2021

#### 4.3.3. Single Family Dwelling

The following was discussed:

- The working group has met a couple of times to discuss updating the definition of the term "single family dwelling" within the permit regulation
- A final recommendation was put forward along with rationale for the changes
- GSC reviewed the wording at their last meeting and are awaiting recommendation from ESC
- A concern was raised by an ESC member about how the proposed wording may affect acreages with two dwelling units

**Bert DeBruin/Barry Voogd moved to accept the definition of single family residential dwelling as presented; CARRIED. Ken Hood and Ken Forbes voted against the motion.**

#### 4.3.4. CE Farm Services

The working group presented a final report that was accepted at the September meeting. Members of the working group have since condensed that report into two documents. These were posted on the portal and reviewed.

- Regarding submission 4.5 6-300, it is recommended that a letter be drafted to the proponent
- Council staff will look into who the submission was addressed to and a letter will be sent from the Chair or the Administrator accordingly

[Council Staff]

- Regarding submission 10-210 a), it is recommended that a STANDATA be issued to clarify that it is not acceptable for the Part 1 contractor or installer to utilize the utility ground/bond
- Information and rationale was provided to assist in the creation of the STANDATA

[Administrator]

**Glenn Hedderick/Ken Hood moved to forward the recommendations to Municipal Affairs for consideration of issuance of a STANDATA; CARRIED.**

#### **4.4. BSC Liaison Report**

Nothing to report

#### **4.5. Administrator/AMA Report**

A written report was included in the portal and the Administrator reported:

- 4 draft STANDATA have been recently published by AMA:
  - 18-ECB-026 (AFCI treat freezer same as fridge);
    - Section 26 – Installation of electrical equipment)
  - 18-ECI-064 (removal of CSA LTR's that have been rolled into ORD's)
    - Section 64 – Renewable energy systems
  - 18-ECV-064-218 (fire alarm system rapid shut-down for Solar PV)
    - Rule 64 – 218 Photovoltaic rapid shutdown
  - LEG-ECR-003 (electric railways)
    - Electric Railways
- CSA-B72 Lightning Protection Systems – possible joint STANDATA interpretation; draft available on the portal
- The following AMA staff have been assigned to the following Regulation Update files (Central Ops reviewing right now – may be on hold):
  - Administrative Items Regulation – Rob Lane (building discipline)
  - Permit Regulation – Lance Leger (building discipline)
- Continuing to work on the Electrical Safety Tips for publishing on the Council website:
  - Electrical Safety
  - Structures near power lines
  - Aluminum Wiring in Residential Installations (in portal, please review and provide any comments)
- 2021 CE Code, Part 1 was published on January 4, 2021 – copy available on the portal for Council use

The following was discussed:

- Members noted that some contractors were confused when interpreting the freezer STANDATA
- There was a suggestion regarding the Lightning Protection Systems STANDATA and that training would need to be provided for SCO's, the Administrator will take it into consideration

#### **4.6. Council Updates**

A written report was included in the portal and updates were provided on:

- Council remains closed to the public, with all staff working from home
- Online meetings for the foreseeable future, please reach out if you have any issues with Telus Business Connect and we can assist
- Please forward any info you would like shared on our social media
- The Safety Codes Council will offer the following training online this spring:
  - New Member Orientation coming up on March 23<sup>rd</sup>
  - Effective Meetings April 13 and 14<sup>th</sup>
  - Appeals Training April 27 and 28<sup>th</sup>

#### **4.7. Gas Pipe Bonding Requirements**

Changes to gas pipe bonding requirements were reviewed and it was noted that the sub rule wording is confusing. The Chair will work with Council staff to reach out to GSC for clarification.

[Wiles/Council Staff]

#### **4.8. Proposed STANDATA for section 2: ma-standata-18-cecb-2, tsd comments**

The document was shared onscreen and suggested edits to section 2 STANDATA were reviewed. The water damage STANDATA was deferred to another time. It was noted some of the edits are for the 2021 code and these will be issued next February.

**Tim Driscoll/Ken Hood moved to forward the information to Municipal Affairs and recommend issuance of the revised STANDATA; CARRIED.**

#### **4.9. Proposed STANDATA for section 18: modifications to existing section 18 STANDATA**

The document was reviewed for information and members will discuss further at next meeting.

[Council Staff]

#### **4.10. Proposed STANDATA for seals: seals STANDATA proposal r2**

- It was proposed that a STANDATA be issued to highlight the significant changes to seals in the upcoming 2021 code
- Members agree that it would be good to inform the industry these changes are coming but it was questioned whether a STANDATA is the best way to do that
- The Director of Stakeholder Relations shared that information can be disseminated by the Safety Codes Council through various channels (ie. Website, e-mail, etc.)
- Tim Driscoll will follow up with the Council regarding working with Municipal Affairs to prepare content and available options for distributing information

[Driscoll]

#### **4.11. Proposed provincial variance on 18-150 2): 2021 CE Code HazLoc Prov Variance 1**

The following was discussed:

- Proposed variance to update acceptable equipment that does not have a certification for hazardous locations including capacitors, RTD's and thermocouples
- This item is going to ballot at CSA Part 1 soon and we would want to make sure that the wording is identical to the subject that gets approved in Part 1
- Need to consider that some of these need to be tested as they can have a significant ignition level
- Would want to ensure they are not getting around certification by saying it's one of these devices
- Tim Driscoll and Patrick Conway will connect regarding upcoming meeting
- Item will be brought back for discussion at next meeting

[Driscoll/Conway/Council Staff]

## **5. Meeting Finalization**

### **5.1. Round Table**

- Member request that documents be provided for review ahead of time for items to be discussed so members can review

### **5.2. Next Meeting**

The next meeting was reconfirmed for April 12, 2021 at 8:30 a.m.

### **5.3. Meeting Adjournment**

The meeting was adjourned at 3:05 p.m.



**– NEW ACTION ITEMS –**

**2.2. New Electrical Utilities Sub-Council Matrix**

The proposed matrix was created by a panel of stakeholders and identifies 14 industry segments to be represented on the Electrical Utilities Sub-Council. The following was discussed:

- Questions arose regarding whether manufacturers should be included, it was explained that there are many different types and it was felt since all couldn't be included it wasn't necessarily beneficial to include just one; will look into if there is an organization that represents all manufacturers  
[Townsend]
- Suggestion to change Accredited Corporations to "Energy Industry" will be considered  
[Townsend]
- Suggestion that CLAC be included as a nominating organization for the Journeyman/Lineman Industry Segment; will look into whether or not the contractor lineman are members  
[Townsend]
- Will look into if there is an organization that represents the Telecom companies  
[Townsend]
- Nominating organizations for Electrical Safety Codes Officers should be EIAA  
[Council Staff]
- Wording should reflect the current definitions (ie. Powerline technician and Power System Electrician)  
[Council Staff]

**4.2. Submission Regarding C22.1-18 Rule 4-004 and Table 5D**

- Scott Basinger will prepare a letter to respond to the proponent and forward to Council staff  
[Basinger]
- Revisions for Tables D8 – D11 were also discussed
- Have prepared a spread sheet which will be shared with members and with CE Code working group for review  
[Basinger]

**4.3. Working Group Reports**

**4.3.1. Master Electricians**

- Please reach out to Council staff if you would like to be involved in the Master Electrician Exam Development working group or the Master Electrician Program Review Working Group  
[All]

**4.3.4. CE Farm Services**

- Regarding submission 4.5 6-300, it is recommended that a letter be drafted to the proponent

- Council staff will look into who the submission was addressed to and a letter will be sent from the Chair or the Administrator accordingly

[Council Staff]

- Regarding submission 10-210 a), it is recommended that a STANDATA be issued to clarify that it is not acceptable for the Part 1 contractor or installer to utilize the utility ground/bond
- Information and rationale was provided to assist in the creation of the STANDATA

[Administrator]

#### **4.7. Gas Pipe Bonding Requirements**

Changes to gas pipe bonding requirements were reviewed and it was noted that the sub rule wording is confusing. The Chair will work with Council staff to reach out to GSC for clarification.

[Wiles/Council Staff]

#### **4.9. Proposed STANDATA for section 18: modifications to existing section 18 STANDATA**

The document was reviewed for information and members will discuss further at next meeting.

[Council Staff]

#### **4.10. Proposed STANDATA for seals: seals STANDATA proposal r2**

- Tim Driscoll will follow up with the Council regarding working with Municipal Affairs to prepare content and available options for distributing information

[Driscoll]

#### **4.11. Proposed provincial variance on 18-150 2): 2021 CE Code HazLoc Prov Variance 1**

- Tim Driscoll and Patrick Conway will connect regarding upcoming meeting
- Item will be brought back for discussion at next meeting

[Driscoll/Conway/Council Staff]

**– MOTIONS –**

**1. Meeting Opening**

The Chair called the meeting to order at 8:30 a.m. A round table introduction was held and teleconference tips were provided. Susan Rossmann provided clarification around the process for bringing items to the Sub-Council and Municipal Affairs.

**1.1 Agenda Adoption**

The following items were added to the agenda:

- 4. 8 Proposed STANDATA for section 2: ma-standata-18-cecb-2, tsd comments
- 4.9 Proposed STANDATA for section 18: modifications to existing section 18 STANDATA
- 4.10 Proposed STANDATA for seals: seals STANDATA proposal r2
- 4.11 Proposed provincial variance on 18-150 2): 2021 CE Code HazLoc Prov Variance 1

**Glenn Hedderick/Tyler Masson moved that the agenda be adopted, as amended; CARRIED**

**1.2 Adoption of the November 23 Minutes**

**Brian Townsend/Nicolas Leblanc moved to adopt the minutes of the November 23, 2021 meeting, as circulated; CARRIED**

**2. Matters for Decision**

**2.1. Closed Session**

**2.1.1. Appointment of Brad Dougherty to represent Labour**

**Nicolas Leblanc/Barry Voogd moved to request candidates from the new nominating organizations before selecting a representative for Labour; CARRIED.**

**2.2. New Electrical Utilities Sub-Council Matrix**

**Todd Grayson/Tim Driscoll moved to recommend to the Board the acceptance of the Electrical Utilities Sub-Council Matrix with edits; CARRIED.**

**2.2. Electrical Sub-Council Matrix**

**Adam Ghani/Nicolas Leblanc moved to recommend to the Board the removal of the Large Electrical Utilities, Rural Electrification Areas, and Small/Municipal Electrical Utilities seats from the Electrical Sub-Council matrix and the addition of CLAC and MERIT to the nominating organizations for the Labour seat; CARRIED.**

**4. Matters for Discussion**

**4.1. Submerged Equipment**

**Adam Ghani/Patrick Conway moved to form a working group to review how to handle flooded and submerged equipment in residential, commercial and industrial settings; CARRIED.**

**Brian Townsend/Scott Basinger moved that membership for the working group would include Tyler Masson, Adam Ghani, Scott Basinger, Nicolas Leblanc, Patrick Conway, Hussein Desouki, Gerry Doan, and Tim Driscoll with support from Municipal Affairs as needed; CARRIED.**

**Tyler Masson/Hussein Desouki moved that the working group would provide a response by the next sub-council meeting (with possibility for extension); CARRIED**

#### **4.3.3. Single Family Dwelling**

**Bert DeBruin/Barry Voogd moved to accept the definition of single family residential dwelling as presented; CARRIED. Ken Hood and Ken Forbes voted against the motion.**

#### **4.3.4. CE Farm Services**

**Glenn Hedderick/Ken Hood moved to forward the recommendations to Municipal Affairs for consideration of issuance of a STANDATA; CARRIED.**

#### **4.8. Proposed STANDATA for section 2: ma-standata-18-cecb-2, tsd comments**

**Tim Driscoll/Ken Hood moved to forward the information to Municipal Affairs and recommend issuance of the revised STANDATA; CARRIED.**

**– WORKING GROUP MEMBER LISTS –**

| <b>WORKING GROUP</b>                                 | <b>WORKING GROUP MEMBERS (Chair)</b>  |
|--|---|
| AEUC   | <b><u>Brian Townsend</u></b><br>Jim Porth, Cory Akins, Ran Li, Sandya Neelawala, Travis Shmyr, Ken Chao, Clark Laing, Barry Thoms, Will Hillary, Al Nagel, Henry Navis, Rodger Renwick, Brian Wagner, Lisa Liusz Senio, Mark Liebel, Graeme Vanderstar, Tony Walker |
| Single Family Residential Dwellings (Joint with GSC) | ESC: Barry Voogd, Bert DeBruin<br>GSC: Roy Herrington, Mark Guderjan, Larry Miller  |
| Submerged and Flooded Equipment                      | Tyler Masson, Adam Ghani, Scott Basinger, Nicolas Leblanc, Patrick Conway, Hussein Desouki, Gerry Doan, Tim Driscoll  |