

# RODE C37.75 Switchgear Enclosure Integrity Working Group Meeting Minutes

October 5, 2020 – Virtual

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**Chair:** Anil Dhawan

**Secretary:** Karla Trost

## Meeting Agenda

1. **Call to Order** Anil Dhawan  
The meeting was called to order at 8:06 AM.
2. **6.3.2 Call for Patents** Anil Dhawan
3. **Confirmation of attendance of Members and Guests**  
Attendance of members was confirmed by roll call. Guests used the Chat or verbally announced themselves.
4. **Attendance and Quorum Check**  
26 People were in attendance (12 members and 14 guests).  
Quorum was met.  
*Note: 1 Member requested being moved to Guest status. 1 Member was moved to Guest status due to the 2/4 attendance policy.*
5. **Approval of Agenda** Anil Dhawan  
Motion by: A. Bonner  
Second by: K. Cummings  
The Agenda was approved.
6. **Approval of Previous meeting minutes** Anil Dhawan  
<https://www.ewh.ieee.org/soc/pes/switchgear/minutes/2019-2/F19RODEa5REV0.pdf>  
  
Motion by: A. Bonner  
Second by: B. Lau  
The Minutes were approved.
7. **Review of Action Items**
  - a) Document Updates per previous meetings were reviewed.
    - i) Discussion on Section 5.1.2: Need to add accommodation for padmounted control enclosures which are not inside of the padmount enclosure. Decision made to change this section to be applicable for all enclosures.

- (1) Complete
- ii) Comment that we need to have a note in the beginning of 75 allowing coastal requirements in non-coastal applications. Action Item: Karla Trost
  - (1) **Action Item:** K. Trost to enter the proposed verbiage in clause 5.1
- iii) Discussion on 5.2.2: Add 5.2.2 of C57.12.29-2014 or Clause 7.2 of UL50E is applicable for control enclosures.
  - (1) Complete
- iv) Discussion on 5.2.1: Add Clause 5.3.1 of C57.12.29-2014 or Clause 7.2
  - (1) Complete
- v) Discussion on 5.4: Add clause 5.4 of C57.12.28-2014 or Clause 8
  - (1) Complete
- vi) General discussion – Add the year to the UL50E standard references.
  - (1) Complete
- vii) General discussion for 5.5: “add or the following sub-clauses are applicable”
  - (1) Complete
- viii) Discussion on 6.1.2. Should we leave it as “applicable”? Decision to add “in addition to any other water resistance requirements defined in applicable IEEE equipment standards.
  - (1) Complete
- b) Discussion on 6.1.9 (If publicly accessible, must be fire-resistant) Please bring ideas to the spring meeting for how to address. Action Item: All Members
  - i) Discussion on if 57.12.28 is applicable for the control enclosure.
  - ii) Discussion on if containment (fire started inside of the control) or if it is resistance to flame starting on the outside. Example: UL50 6.6
  - iii) Decided to add “Clause 4.1.9 of IEEE C57.12.28-2014 or Clause 6.6 of UL 50 is applicable for control enclosures.” **Action Item:** K. Trost to add.
- c) Discuss Section 7 (Labels) verbiage. Anil Dhawan
  - i) Action Item: David Beseda, Chris Ambrose, and Anil Dhawan (lead) to review.
  - ii) Discussed what is currently in C57.12.28-2014, and what is not (what the labels are, the life of the label, the label material.)
  - iii) A member referenced ANSI - Z535.3 (4, 6), another referenced NEMA 260.
  - iv) T. John agreed to send out information their company has already put together.
  - v) A member provided “ASTM D4956, Standard Specification for Retroreflective Sheeting for Traffic Control is what we use.”
  - vi) P. Found agreed to send information on their company’s standards.
  - vii) **Action Item:** K. Trost will contact IEEE for assistance getting copies of these standards.
  - viii) **Action Item:** A. Dhawan will lead a group to review the documents and propose verbiage. Assisted by: A. Bonner, A. Pruitt, D. Beseda, P. Found, T. Johnson.
- d) Draft definition of control enclosure. Action item: Karla Trost
  - i) WG review of the proposed definition.
    - (1) Question about possible inclusion of cabinet venting or components like anti-condensation pads.
    - (2) Security devices discussion: What does this include? Was meant to reference items like pad locks and security sleeves.
      - (a) Add word removable before security devices.
    - (3) One recommendation is to remove the last sentence completely.

- (a) There is some value in defining items which are not included.
- (b) During discussion, decision made to keep what “is not included”.
- ii) Decided to use the following definition: **Action Item:** K. Trost to add to the document.
  - (1) **Control Enclosure:** Cabinet made of Metal, Fiberglass, or other material designed to house a distribution control. The enclosure includes the housing, mounting, and permanent outside surfaces. Where applicable cabinet venting, gasketing, or manufacturer supplied enclosure mounting components are included. It does not include items which are control specific which may include external connectors, hubs, or other cable entrances, internal components (such as relays, power supplies, or radios) or removable security devices.
- e) Discussion on if we should expand the “Control Enclosures Column” in the tables.
  - i) Editorial: add over-all header for equipment. Action Item: Karla Trost
    - (1) Complete
  - ii) Action item: David Beseda and Karla Trost work on a control table.
    - (1) **Action Item:** D. Beseda and K. Trost will complete prior to the next meeting.

**8. New Items:**

- Review PAR timeline and determine if we need to request an extension.

**PAR Expiration Date: 31-Dec-2021**

To Be done (with dates to meet current PAR Deadline):

- Complete Draft (October 2020)
- Working Group review/comment (November 2020)
- Editing (December 2020/January 2021)
- Ballot (February 2021)
- Address comments (April 2021)
- Re-Ballot (July, 2021)
- Submit to RevCom (by 18 October 2021)
- Item brought up: Discussion on need to address snow loading?
  - Some utilities have requirements for heavy snow, but it has been internally developed for specific areas. It may be difficult to come up with general requirements.
  - The enclosure standards do not currently include weight limits for items sitting on top of the enclosure.
  - It was pointed out that 57.12.28-2014 (and the draft of 37.75) call out a deflection test using a 445N/100lbf force.
  - If the user will need something more, they would have to define it as a special service requirement.
    - **Action Item:** D. Beseda (lead), B. Lau, and A. Pruitt to review standards and propose verbiage for 6.1.11.
- UL 50E-2015 is under revision. Do we want to keep the 2015 year or remove it?
  - UL 50 is not using a year. UL 50E should be released next year. **Action Item:** K. Trost to remove the year for 50E.

9. **Next Meeting** is scheduled to take place in Charlotte, NC with the Spring 2021 Switchgear Committee meeting.

10. **Adjournment**

The meeting was adjourned at 9:37AM.

## Annex 1: Attendance

Role	First Name	Last Name	Company	10/5/2020
Chair	Anil	Dhawan	ComEd	X
Member	Peter	Agliata	Hubbell Power Systems	X
Member	Edwin	Almeida	Southern California Edison	
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	
Member	David	Beseda	S&C Electric Co.	X
Member	Antone	Bonner	PAS Consulting	X
Member	Russell	Boyce	Eaton	
Member	Michael	Culhane	Eaton	
Member	Katherine	Cummings	G&W Electric	X
Member	William	Ernst	Thomas & Betts	
Member	Mark	Feltis	Schweitzer Engineering Laboratories, Inc	X
Member	Paul	Found	BC Hydro	X
Member	Travis	Johnson	Xcel Energy	X
Member	Brendan	Kirkpatrick	Southern California Edison	
Member	Robert	Lau	nVent Hoffman	X
Member	Benson	Lo	Toronto Hydro	X
Member	Al	Pruitt	The Durham Company	X
Member	Tim	Rohrer	Exiscan	
Member	Ian	Rokser	Eaton Corp	
Member	Francois	Soulard	Hydro-Quebec	Excused
Secretary	Karla	Trost	G&W Electric	X
Guest	Thomas	Ballard	Hubbell Power Systems	X
Guest	Steven	Barbera	Arizona Public Service	X
Guest	Robert	Behl	ABB	
Guest	Dave	Booth	Exiscan	
Guest	Ngoc	Bui	SDG&E	
Guest	Dan	Busilan	Dominion Energy	X
Guest	Krystle	Carstens	Thomas & Betts	
Guest	Stephen	Cary	<del>Eaton</del> Innovative Switchgear	X
Guest	Sterlin	Cochran	Oak & Shield LLC	
Guest	Robert	Cohn	Powercon Corp.	
Guest	Brad	Connor	Xcel Energy	
Guest	Bianca	Cosby	San Diego Gas & Electric	
Guest	Kennedy	Darko	G&W Electric Co	
Guest	Doug	Edwards	Siemens Industry, Inc.	X
Guest	nadia	El khattabi	Hydro-Quebec	
Guest	Jeffrey	Gieger	Thomas & Betts	
Guest	Paul	Gingrich	AZZ Switchgear Systems	
Guest (Member)	Ilya	Glinsky	Southern California Edison	X

				Changed at Request
Guest	Jodi	Haasz	IEEE	
Guest	Robert	Hanna	ABB INC	
Guest	Christopher	Hastreiter	Eaton	X
Guest	Harold	Hirz	G&W	X
Guest	Jason	Hollander	CHA Consulting, Inc.	
Guest	Rahul	Jain	S&C Electric Company	
Guest	John	Kaminski	Siemens	
Guest	Ryan	Kowdley	Pacific Gas & Electric	
Guest	Bradley	Lewis	AEP	
Guest	Donald	Martin	G&W Electric Co.	
Guest (Member)	Steven	Meiners	Retired	2/4 Rule
Guest	Jacob	Midkiff	Dominion Energy	X
Guest	Ashley	Moran	IEEE Standards Association (IEEE-SA)	
Guest	Roberto	Olivares	Siemens	
Guest	Brian	ONeil	RMS Energy	
Guest	Stephen	Pell	Siemens	
Guest	Stephen	Pell	Siemens	
Guest	Mark	Peterson	Xcel Energy	
Guest	Larry	Putman	Powell	X
Guest	Anthony	Ricci	FirstEnergy Corp.	
Guest	Caryn	Riley	Georgia Tech/NEETRAC	X
Guest	Mark	Roberson	AZZ/Calvert	
Guest	Timothy	Royster	Dominion Energy Virginia	
Guest	Michael	Shook	Hubbell Power Systems	
Guest	Jon	Spencer	Utility Solutions	X
Guest	Erin	Spiewak	IEEE	
Guest	Donald	Swing	Powell Industries	X
Guest	Craig	Thompson	SEL	
Guest	Nenad	Uzelac	G&W Electric	
Guest	Srikant	Venkatesh	Schweitzer Engineering Laboratories	
Guest	Bruce	Venne	Rockwell Automation	
Guest	Nick	Vonfeldt	Ameren Missouri	
Guest	Michael	Wactor	Powell Industries, Inc	
Guest	Randy	Ward	Aluma-Form	
Guest	Jerry	Wen	BC Hydro	
Guest	Torsten	Wirz	ABB AG	
Guest	Joseph	Wisnewski	UL LLC	X
Guest	Robert	Wolf	Hubbell Power Systems, Inc.	
Guest	Terrance	Woodyard	Siemens Industry Inc.	
Guest	Charles	Worthington	Hubbell Power Systems	
Guest	Danish	Zia	UL LLC	

## Annex 2: Participant List from WebEx with Chat Affiliations

from IEEE PES Technical Council (WebEx Account 4) to everyone: 7:21 AM

Please enter your Name and Affiliation in the Chat

from IEEE PES Technical Council (WebEx Account 4) to everyone: 7:32 AM

Karla Trost, G&W Electric

from Dan Busilan to everyone: 7:59 AM

Dan Busilan - Dominion Energy

from Jacob Midkiff to everyone: 7:59 AM

Jacob Midkiff - Dominion Energy

from Durham Company to everyone: 8:00 AM

Al Pruitt - The Durham Co

from Christopher Hastreiter to everyone: 8:01 AM

Chris Hastreiter - Eaton

from Jon Spencer to everyone: 8:01 AM

Jon Spencer - Utility Solutions Inc

from Joe Wisnewski to everyone: 8:01 AM

Joseph Wisnewski UL LLC

from kcummings to everyone: 8:01 AM

Kate Cummings, G&W Electric

from Peter Agliata to everyone: 8:02 AM

Peter Agliata - Hubbell Power Systems, Birmingham AL

from NEETRAC Host 3 to everyone: 8:04 AM

Caryn Riley, Georgia Tech/NEETRAC

from Bob Lau to everyone: 8:05 AM

Bob Lau - nVent Hoffman

from Paul Found to everyone: 8:05 AM

Paul Found - BC Hydro

from Antone Bonner to everyone: 8:06 AM

Antone Boner - retired

from Thomas Ballard to everyone: 8:10 AM

Hank Ballard - Hubbell Power Systems, Leeds, AL

from Larry Putman to everyone: 8:14 AM

Larry Putman Powell, North Canton Ohio

### Participants

- 2164\*\*\*\*14
- 4169\*\*\*\*37
- 9494\*\*\*\*68
- anil dhawan
- Antone Bonner
- Durham Company (apruitt)
- Benson Lo
- Bob Lau
- Christopher Hastreiter
- Donnie Swing
- Dan Busilan
- David.Beseda
- Doug Edwards
- Jacob Midkiff

- Jon Spencer
- Joe Wisnewski
- NEETRAC Host 3
- K Trost
- kcummings
- Larry Putman
- Mark Feltis
- Paul Found
- IEEE PES Technical Council (WebEx Account 4)
- Peter Agliata
- Stephen Cary
- Barbera, Steven J
- Thomas Ballard
- Travis Johnson