

# RODE C37.75 Switchgear Enclosure Integrity Working Group

## Meeting Minutes

April 19, 2021 – 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 8:04 AM CDT.
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 (13 members and 13 guests).  
Quorum was met.
5. **Approval of Agenda** Anil Dhawan  
Motion by: B. Kirkpatrick  
Second by: R. Lau  
The Agenda was approved.
6. **Approval of Previous meeting minutes** Anil Dhawan  
<https://www.ewh.ieee.org/soc/pes/switchgear/minutes/2020-2/F20RODEa5REV0.pdf>  
  
7. c) iv) Should reference T. Johnson not T. John.  
  
Motion by: D. Beseda  
Second by: R. Lau  
The Minutes were approved as amended.
7. **Review of Action Items**
  - a) Document Updates per previous meetings were reviewed. (All Completed and included in D1.4)
    - (1) Action Item: K. Trost to enter the proposed verbiage in clause 5.1
    - (2) 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.

- ii) Action Item: K. Trost will contact IEEE for assistance getting copies of these standards.
  - iii) Action Item: A. Dhawan will lead a group to review the documents and propose verbiage (*for Section 7*). Assisted by: A. Bonner, A. Pruitt, D. Beseda, P. Found, T. Johnson.
  - iv) Decided to use the following definition (*Control Enclosure*): Action Item: K. Trost to add to the document.
  - v) Action Item: D. Beseda and K. Trost will complete (*Control Enclosure Table*) prior to the next meeting.
  - vi) Action Item: D. Beseda (lead), B. Lau, and A. Pruitt to review standards and propose verbiage for 6.1.11.
  - vii) UL 50 is not using a year. UL 50E should be released next year. Action Item: K. Trost to remove the year for 50E.
- b) Review of Internal Working Group Ballot Comments
- i) 6 Members Returned Comments
    - 42 Total Comments
    - (1) 16 Editorial
      - (a) 15 Accepted by the Chair/Secretary
      - (b) 1 Rejected as it requested a change to the IEEE template language
    - (2) 17 General
      - (a) 9 Accepted by the Chair/Secretary
      - (b) 8 For Working Group Discussion
    - (3) 9 Technical
      - (a) 9 For Working Group Discussion
  - ii) **Definition of Submersion: K. Trost, D. Beseda, A. Dhawan C. Ambrose will review the definitions of Submersible, temporary immersion, and prolonged immersion and propose new verbiage if necessary.**
  - iii) Add 5.2.1 to Table 1 – agreed to add as well as other “general” subclauses.
  - iv) Addition of other applications to 5.5.13 –
    - (1) Is the purpose of the test to validate leaking/breathing/air flow?
    - (2) The test is to validate the coating and is on a single panel.
    - (3) Recommendation to copy the text from 57.12.32-2002 rather than reference the older version if we keep the subclause.
    - (4) D. Beseda will review other C57.12.XX documents to see if there is a gap and modify the language? (K. Trost to assist, A. Dhawan)**
  - v) 6.3.5 and 6.3.6 - Why only pad-mount? Restricted to publicly accessible. Reject, leave as is.
  - vi) 6.1.11 to include “Submersible” as an application. (Accepted)
  - vii) 6.1.11.3 For other polymeric items (non-windows) – Expected it to be tested through other substrate/ enclosure requirements.
    - (1) UL50 references 746C for plastic items.
    - (2) In concept – move QUV out from window and cover any components that impact integrity.
    - (3) The QUV test called out does not include visual acceptance after the test (can it be seen through).
    - (4) A. Dhawan lead, Mike Whitney, Travis Johnson to review the requirements and applicability for QUV testing.**

- viii) 6.3.7 – Once transferred to the user the design tests are no longer applicable by the manufacturer. Agreed to remove.
- ix) Recommended Table 1 title change “Table 1 - Apparatus Enclosure - Materials Design and Coating System Requirements by Application” – Accepted

**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):

- Working Group Editing (May 2021)
- MEC review
- Ballot (June/July 2021)
- Address comments (Fall 2021)
- Submit to RevCom (by 18 October 2021)
- If necessary, request extension and Re-Ballot

D. Beseda – Motion to submit for 2 year extension.

F. Soulard – 2<sup>nd</sup>

12 members present, all voted to submit for the 2 year extension.

**A. Dhawan submit for extension.**

**9. Next Meeting** is scheduled to take place with the Fall 2021 Switchgear Committee meeting.

**10. Adjournment**

The meeting was adjourned at 9:35AM CDT.

## Annex 1: Attendance

Role	First Name	Last Name	Company	04/19/2021
Chair	Anil	Dhawan	ComEd	X
Secretary	Karla	Trost	G&W Electric	X
Member	Peter	Agliata	Hubbell Power Systems	X
Member	Edwin	Almeida	Southern California Edison	
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	X
Member	David	Beseda	S&C Electric Co.	X
Member	Antone	Bonner	PAS Consulting	
Member	Russell	Boyce	Eaton	
Member	Michael	Culhane	Eaton	X
Member	Katherine	Cummings	G&W Electric	X
Member	Mark	Feltis	Schweitzer Engineering Laboratories, Inc	
Member	Paul	Found	BC Hydro	X
Member	Travis	Johnson	Xcel Energy	X
Member	Brendan	Kirkpatrick	Southern California Edison	X
Member	Robert	Lau	nVent Hoffman	X
Member	Benson	Lo	Toronto Hydro	X
Member	Al	Pruitt	The Durham Company	
Member	Tim	Rohrer	Exiscan	
Member	Ian	Rokser	Eaton Corp	
Member	Francois	Soulard	Hydro-Quebec	X
Guest	Thomas	Ballard	Hubbell Power Systems	
Guest	Steven	Barbera	Arizona Public Service	
Guest	Dave	Booth	Exiscan	
Guest	Ngoc	Bui	SDG&E	
Guest	Dan	Busilan	Dominion Energy	X
Guest	Stephen	Cary	Eaton	
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.	
Guest	nadia	El khattabi	Hydro-Quebec	
Guest	Jeffrey	Gieger	Thomas & Betts	X
Guest	Paul	Gingrich	AZZ Switchgear Systems	
Guest	Ilya	Glinsky	Southern California Edison	
Guest	Sahadev	Gohil	AZZ Switchgear Systems	X
Guest	Jodi	Haasz	IEEE	
Guest	Robert	Hanna	ABB INC	
Guest	Christopher	Hastreiter	Eaton	X

Guest	Harold	Hirz	G&W	
Guest	Jason	Hollander	CHA Consulting, Inc.	
Guest	Benjamin	Isaak	American Electric Power	X
Guest	Rahul	Jain	S&C Electric Company	
Guest	John	Kaminski	Siemens	
Guest	John	Kapitula	ABB	X
Guest	Ryan	Kowdley	Pacific Gas & Electric	
Guest	Bradley	Lewis	AEP	
Guest	Donald	Martin	G&W Electric Co.	
Guest	Abraham	Martinez	ABB	X
Guest	Steven	Meiners	Retired	
Guest	Jacob	Midkiff	Dominion Energy	
Guest	Ashley	Moran	IEEE Standards Association (IEEE-SA)	X
Guest	Roberto	Olivares	Siemens	
Guest	Brian	ONeil	RMS Energy	
Guest	Stephen	Pell	Siemens	
Guest	Mark	Peterson	Xcel Energy	
Guest	Larry	Putman	Powell	
Guest	Anthony	Ricci	FirstEnergy Corp.	
Guest	Caryn	Riley	Georgia Tech/NEETRAC	X
Guest	Mark	Roberson	AZZ/Calvert	
Guest	Michael	Shook	Hubbell Power Systems	
Guest	Jon	Spencer	Utility Solutions	X
Guest	Erin	Spiewak	IEEE	
Guest	Donald	Swing	Powell Industries	
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	William	Walter	We-Energies	X
Guest	Randy	Ward	Aluma-Form	
Guest	Jerry	Wen	BC Hydro	
Guest	Michael	Whitney	S & C Electric Company	X
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: 8:01 AM  
Please enter your name and affiliation in the chat.

from IEEE PES Technical Council (WebEx Account 4) to everyone: 8:01 AM  
Karla Trost, G&W Electric

from Christopher Hastreiter to everyone: 8:01 AM  
Chris Hastreiter, Eaton

from Caryn Riley to everyone: 8:01 AM  
Caryn Riley, Georgia Tech/NEETRAC

from kcummings to everyone: 8:01 AM  
Kate Cummings, G&W Electric

from Joe Wisnewski to everyone: 8:01 AM  
Joseph Wisnewski - UL LLC Guest

from Michael Culhane to everyone: 8:02 AM  
Michael Culhane - Eaton

from David.Beseda to everyone: 8:02 AM  
David Beseda - S&C Electric Company

from Abraham Matinez to everyone: 8:02 AM  
Abraham Martinez - ABB - Guest

from John to everyone: 8:02 AM  
John Kapitula - ABB

from Bob Lau to everyone: 8:02 AM  
Bob Lau - nVent Hoffman

from peter agliata to everyone: 8:02 AM  
Peter Agliata - S&C Electric

from Ben Isaak to everyone: 8:03 AM  
Ben Isaak - American Electric Power

from Ashley Moran to everyone: 8:03 AM  
Ashley Moran- IEEE SA

from Michael A. Whitney to everyone: 8:03 AM  
Michael A. Whitney - S&C Electric Company

from Paul to everyone: 8:03 AM  
Paul Found - BC Hydro

from IEEE PES Technical Council (WebEx Account 3) to everyone: 8:09 AM  
Travis Johnson - Xcel Energy

from Benson Lo - Engineer to everyone: 8:09 AM  
Benson Lo - Toronto Hdyro - sorry having trouble dialing in, will dial in as soon as I can

from Bill Walter to everyone: 8:16 AM  
Bill Walter, We-Energies

from Jon Spencer to everyone: 8:54 AM  
Jon Spencer - Utility Solutions Inc Hickory, NC

from Jeff Gieger to everyone: 8:54 AM  
Jeff Gieger ABB/Elastimold

from Francois Soulard to everyone: 8:55 AM  
Francois Soulard, Hydro-Quebec, Member

from Bob Lau to everyone: 8:56 AM  
I have another meeting at 9:00 central time that I have to exit this meeting for.

from Dave Gohil to everyone: 9:11 AM

Dave Gohil Representing AZZ Switchgear Systems