

Chair: Paul Found

Secretary: Karla Trost

Meeting Minutes

- 1. Call to Order** Paul Found
The meeting was called to order at 1:33PM CDT.
- 2. Call for Patents and Copyright** Paul Found
IEEE Patent and Copyright information was provided, and slides were shown during the meeting.
- 3. Introduction of Members and Guests**
Self-introductions with affiliations were made via chat.
- 4. Attendance and Quorum Check** Karla Trost
Of 22 members, 20 members (and 19 guests) were present. Quorum was achieved.
- 5. Approval of Agenda** Paul Found
M. Feltis made a motion to approve.
C. Riley seconded.
The agenda was approved as presented.
- 6. Approval of Previous Minutes** Paul Found
Minutes from the Spring meeting (Rev 1) as well as three on-line comment resolution meetings were provided with the agenda and displayed during the meeting.

K. Cummings made a motion to approve the minutes.
B. Kirkpatrick seconded.
The minutes were approved.
- 7. Review Action Items** Paul Found

 - **P. Found** to apply for a 2 year PAR extension. Application Completed. Vote is scheduled for 22 Oct 2021.
 - It was mentioned that we should use the same definitions for Submersible, Prolonged, and Temporary as C37.75. **K. Trost** has an action item for 37.75 to revise and is willing to provide that information to 37.68. (It was recommended that RODE

create a single TF to create these definitions.) Action completed and sent to RODE for voting. Proposed terminology has been incorporated in D3.0.

- *(In regard to “safety” labels and hazardous voltages)* **K. Trost** will review the labeling standards and IEEE style guide for the proper terminology. Action completed and incorporated in D3.0.
- A small group to meet separately to revise section 6.2.6 to cover the two types of accumulation and to take into account the comment on gaskets and seals. (Including gaskets not absorbing water.) **P. Found, K. Cummings, S. Pell** Action completed and incorporated into D3.0.
- D2.2 Line 489: Recommendation for **P. Found** to contact the commenter for more information. Action completed and incorporated into D3.0.
- D2.2 Line 611: **I. Rokser** to provide additional details to the chair for review. Action completed and incorporated in D3.0.
- D2.2 Line 643: **P. Found** to do some additional research if better information is not found, will remove the reference to CISPR 32. Action completed. CISPR 32 deleted from D3.0.
- D2.2 Line 856: **C. Ambrose and B. Lo** to review Clause 9 and referenced documents and propose language to address. Action completed and incorporated in D3.0.

8. New Items

- Review status of Draft 3.0 and open items
 - D2.2 Lines 636-638: **P. Found** to contact commenter for appropriate IEC standard(s). WG will need to evaluate to determine IEC equivalency to IEEE C37.90.2&3 ref.
 - The commenter provided additional information (although using older versions) on IEC 61000-4-3 and IEC 61000-4-2 as possible standards.
 - **M. Feltis** to review the IEC vs IEEE standards and provide a proposal for document language. P. Paradis (H-Q) is willing to assist in the review.
 - It was mentioned that the CB group has been discussing whether C37.90 are applicable because they are specific to protective relays. If there is anything of interest from that discussion J. Mizener will share.
 - D2.2 Line 740: The **Chair** is looking for a volunteer to review the document for other instances of design requirements for publicly accessible documents and develop verbiage for section 6.
 - **C. Hastreiter, K. Trost, and P. Found** to review Clause 7 (Design Tests) for items (including this one) which should be moved to Clause 6 (Design Requirements).

- D2.2 Line 804: **K. Trost/Paul. Found** to review history from previous minutes. Clause 8.2 Analog Sensor Inputs. P. Found followed up with commenter. Questions to WG:
 - Current: All analog inputs shall be tested according to the manufacturer’s production practice and within published accuracy ranges.
 - Previous: All analog inputs shall be tested according to the manufacturer’s production practice. Inputs shall be tested in a manner that demonstrates that they meet the manufacturer’s specified accuracy *for room temperature operation. Values generated by secondary calculation (such as symmetric components) need not be tested.*
 - Q1. Is there relevance to be more specific in our wording?
 - Discussion on if RODE standards specify temperature requirements for any production tests.
 - Comment that production test criteria is defined by the design tests performed by the manufacturer.
 - “Room temperature” can be vague as the temperature in a production environment can vary.
 - One user suggested that the manufacturer record the temperature at the time of the test.
 - One manufacturer felt that the manufacturer is responsible for confirming accuracy and this standard should leave it to the manufacturer.
 - Q2. Is there an appetite for a design test that covers the product’s temperature range?
 - Discussion on the fact that accuracy is a combination of the control, sensor, and cables. The sensor is not covered by this standard which can complicate the design test definition.
 - Suggestion for the design test to have the analog inputs tested, over the temperature range using a known analog voltage/current.
 - Decision – keep the current wording for the Production Testing and develop language for a Design Test. **P. Found to discuss with commenter and K. Trost.**
- Line 544 – What is meant by connection points and how is this different than cables?
 - Discussion on if connection points was the same as “connectors”.
 - It was pointed out that it may not be possible to protect an entire length of cable.
 - **K. Trost to change language to “external cables and/or connectors”**

- Timeline proposal:
 - Complete the draft (Goal – end of October)
 - Send Draft 3.1 to the WG – Requires 2/3 approval vote via email (estimated 3-week review cycle)
 - Send to MEC for review (30 days)
 - Send ballot pool invitation (30 days)
 - If you want to join the ballot group – log into myProject and indicate interest in 37.68
 - RODE to send out email vote to approve opening ballot (2 weeks)
 - Ballot opens (30 days required, plan to wait until >Jan 1 to open)
 - Ballot closes (Feb 2022)
 - WG Review/ comment resolution through Spring meeting.

9. Next meeting(s):

- The next meeting is expected to be in conjunction with the Spring 2022 Switchgear Committee meeting.

10. Adjournment.

- The meeting was adjourned at 3:03 PM CDT.

Annex 1: Attendance

Role	First Name	Last Name	Company	10/12/2021
Chair	Paul	Found	BC Hydro	X
Member	Peter	Agliata	Hubbell Power Systems	X
Member	Edwin	Almeida	Southern California Edison	X
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	X
Member	Katherine	Cummings	G&W Electric	X
Member	Frank	DeCesaro	DeCesaro Consulting Services	X
Member	Anil	Dhawan	ComEd	X
Member	Mark	Feltis	Schweitzer Engineering Laboratories, Inc	X
Member	Christopher	Hastreiter	Eaton	X
Member	Travis	Johnson	Xcel Energy	X
Member	Brendan	Kirkpatrick	Southern California Edison	X
Member	Benson	Lo	Toronto Hydro	X
Member	Donald	Martin	G&W Electric Co.	X
Member	Peter	Meyer	S&C Electric Company	X
Member	Jacob	Midkiff	Dominion Energy	
Member	Jeff	Mizener	Siemens Industry, Inc.	X
Member	Stephen	Pell	Siemens	X
Member	Caryn	Riley	Georgia Tech/NEETRAC	X
Member	Ian	Rokser	Eaton Corp	
Member	Francois	Soulard	Hydro-Quebec	X
Member	Nenad	Uzelac	G&W Electric	X
Secretary	Karla	Trost	G&W Electric	X
Guest	Antone	Bonner	PAS Consulting	X
Guest	Juliene	Britt	Hubbell Power Systems	X
Guest	Stacey	Davies	Siemens	X
Guest	Chris	Ekpoudom	Southern States	X
Guest	Ilya	Glinsky	Southern California Edison	X
Guest	Harold	Hirz	G&W	X
Guest	Ihab	Ibrahim	PG&E	X
Guest	John	Kaminski	Siemens	X
Guest	Ryan	Kowdley	Pacific Gas & Electric	X
Guest	Michael	Lee	PG&E	X
Guest	Colby	Lovins	Federal Pacific	X
Guest	Abraham	Martinez	ABB	X
Guest	Ashley	Moran	IEEE Standards Association (IEEE-SA)	X
Guest	Pascal	Paradis	Hydro Quebec	X
Guest	Miguel	Plascencia	PG&E	X
Guest	Vaidyanathan	Ramasethu	G&W Electric	X
Guest	Reshma	Ramdoss	Southern California Edison	X
Guest	Archana	Sadhanala	Hubbell Power Systems	X
Guest	Christopher	Slattery	First Energy	X