

Chair: Paul Found

Secretary: Karla Trost

Meeting Minutes

1. **Call to Order** Paul Found

The meeting was called to order at 4:15PM on Tuesday, April 30, 2019.

2. **6.3.2 Call for Patents** Paul Found

3. **Introduction of Members and Guests**

Self-introductions with affiliations were made by the attendees.

4. **Attendance and Quorum Check** Karla Trost

Session 1	Session 2
Of 20 members 11 were present, Quorum was achieved.	Of 20 members 11 were present, Quorum was achieved.
19 guests attended with 3 requesting membership. Membership was approved.	

Note: The membership role was reviewed after the meeting. 4 members were removed due to change in jobs and/or not meeting attendance requirements.

5. **Approval of Agenda** Paul Found

Proposed agenda was reviewed.

Motion to approve by: Francois Soulard

Motion seconded by: Jeff Mizener

Motion carried.

6. **Approval of Previous Minutes** Paul Found

<http://www.ewh.ieee.org/soc/pes/switchgear/minutes/2018-2/F18RODEa4REV1.pdf>

Motion to approve by: Jeff Mizener

Motion seconded by: Anil Dhawan

Motion carried.

7. **Review Action Items** Paul Found

- Access to IEC 60529, IEC 60068-2-1/2/78/30, NEMA 250 standards. IEC 60529 is still pending. The standards are located on imeetcentral under Reference Standards.

- There is confusion on the bullet in report Section 6 that says: “Perform testing at the furthest point from the switch.” Paul and Kate to provide more explanation.
 - If there are extended cables, a manufacturer should confirm design testing with the maximum cable length.
- A member brought up C57.148-2011. Is there information in this that might be useful?
 - A comparison table was shared and is available in imeetcentral
 - **Action Item:** Request WG access to C57.148-2011 from IEEE. (Paul Found)
- Need a small group to take the applications and the sections and draft the applicability/summary table and document outline. Completed and published to Central Desktop
- Nenad proposed having a group of manufacturers provide a list of unique tests for integrated controls. Paul (Lead), Karla (G&W), Peter (Hubbell), Stephen (Siemens), Pete (S&C) Combined with the recommendation is a for a group to start drafting the standard language. Karla, Ian, Chris, Mark, Peter A (Peter to find S&C resource).
 - **Action Item** for 6.1.4 – All send to Karla Trost
 - Discussion on 5.1.1 – would this apply to devices powered from the apparatus? TBD
 - **Action Item: Karla Trost** Ensure we include a definition for Current Powered
 - Discussion on 7.1.1: Wind vibration during non-operations would occur and would be more than transportation. There is interest in leaving this in.
 - Discussion on 7.1.2: Discussion on including, refer to the apparatus, and/or remove the clause. – Reference C37.100.1-2018 as currently in the draft.
 - Discussion on 7.2.3 – refer to both IEEE and IEC standards, confirm the year of IEC 60255-26 to use. Is 2018 active?
 - Discussion on 7.2.5 and 7.2.6 – Recloser is dual logo, so recommendation is to put in both IEEE and IEC. No one disagreed.
 - For 60255-26 ensure published and correct year / clauses.
 - Discussion on 7.3.2.1 – Recommendation to use the manufacturer’s documented time. Manufacturer must document which options are included on this test.
 - **Action Item:** Chris Ambrose and Karla Trost to put together a list of standard and options and send out for fill-in by the group (what are the bare requirements.)
 - Note that may need to cover lightning/ surges that impact antennas/ extended devices.
 - Discussion on 7.3.3. – “If the relevant equipment standard does not cover, then, the following are applicable”.
 - Discussion on 7.3.4 – Will need to define Healthy or “New” **Action Item:** Karla Trost to add spot for definitions for this section.
 - Discussion on changing “alarm for low battery condition” for “alarm for abnormal battery condition”.
 - Add definition for Battery Charger/ Battery Management system

The first session was paused at 5:45PM Tuesday, April 30th. The second session resumed at 10:16AM Wednesday, May 1st.

- Discussion Section 7.4 – Do we need to include? Does apparatus testing cover? Not necessarily. Utility input – control should always be “safe to the touch” under a ground fault rise condition.
 - Need to ensure that the grounding design criteria covers a single point of ground.
 - Possibly may want to re-title this section, “Control Safety Grounding”
 - “Resistance measurement” IEC common clauses is the same as 37.60-2018 Clause 6.3.
- Discussion on Section 7.5 – Do we need to include design criteria or testing related to the temperature rise (heat generation)? Discussion was yes.
 - **Action Item:** Paul Found will review IEC60068-2-30 and -38 with Chris Hastreiter to provide comparison. Anil Dhawan will help review to determine if this covers the heat generation.
- 7.6.1, change to 7.6.2 and 7.6.3 **Action Item:** Karla Trost
- Section 7.6 – Request to add an informative annex and table showing the IP ratings? Can we do this without copyright? Can we create a table only showing the ratings we are using? **Action Item:** Karla Trost to ask IEEE.
 - Add statement that normal service conditions from apparatus standards apply. (Abnormal service conditions are out of scope.)
 - 7.6.3.1 Should be IP63 or higher since IP33 already minimum stated.
Action Item: Karla Trost

8. New Items

- The Design Requirements and Production Test Requirements need to be worked on. Request for volunteers to work on draft language for review at the fall meeting.
 - Design Requirements Group: Francois Soulard (lead), Travis Johnson, Pete Meyer, Robert Hanna, Benson Lo, Jeff Mizener, Kate Cummings, Paul Found
 - Production Test Requirements Group: Paul Found (lead), Don Martin, Peter Agliata, Chris Hastreiter, Anil Dhawan

9. Next Steps

- Project Milestones
 - Draft verbiage/ tests: Spring-and Fall 2019
 - Compile initial ballot draft: Spring 2020
 - Draft for Initial Sponsor Ballot: December 2020

10. Next meeting: is scheduled to take place in San Diego with the Fall Switchgear Committee meeting.

11. Adjournment.

Meeting adjourned at 11:22AM.

Annex 1: Attendance

Role	First Name	Last Name	Company	Present
Chair	Paul	Found	BC Hydro	X
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	X
Member	Katherine	Cummings	G&W Electric	Excused
Member	Anil	Dhawan	ComEd	X
Member	Mark	Feltis	Schweitzer Engineering Laboratories, Inc	Excused
Member	Travis	Johnson	Xcel Energy	X
Member	Brendan	Kirkpatrick	Southern California Edison	X
Member	Benson	Lo	Toronto Hydro	X
Member	Peter	Meyer	S&C Electric Company	X
Member	Jacob	Midkiff	Dominion Energy	X
Member	Stephen	Pell	Siemens	X
Member	Caryn	Riley	Georgia Tech/NEETRAC	X
Member	Ian	Rokser	Eaton Corp	Excused
Member	Francois	Soulard	Hydro-Quebec	X
Member	Nenad	Uzelac	G&W Electric	X
Secretary	Karla	Trost	G&W Electric	X

Guest	Peter	Agliata	Hubbell Power Systems	X
Guest	Edwin	Almeida	Southern California Edison	
Guest	Thomas	Ballard	Hubbell Power Systems	X
Guest	David	Beseda	S&C Electric Co.	
Guest	Antone	Bonner	PAS Consulting	X
Guest	Mohit	Chhabra	S&C Electric Company	X
Guest	Randall	Creach	AZZ Switchgear Systems	
Guest	Frank	DeCesaro	Eaton's Power Systems Division	X
Guest	Edgar	Dullni	ABB	X
Guest	Nadia	El khattabi	Hydro-Quebec	X
Guest	Michael	Flack	Southern Company Services, Inc.	
Guest	Jeffrey	Gieger	Thomas & Betts	X
Guest	Jodi	Haasz	IEEE	X
Guest	Robert	Hanna	ABB INC	X
Guest	Christophe r	Hastreiter	Eaton	X
Guest	Christian	Heinrich	Siemens AG	
Guest	Harold	Hirz	Thomas and Betts	X
Guest	John	Kaminski	Siemens	
Guest	Ryan	Kowdley	Pacific Gas & Electric	
Guest	Robert	Lau	Pentair Technical Solutions	X
Guest	Bradley	Lewis	AEP	
Guest	Donald	Martin	G&W Electric Co.	X

Guest	Benjamin	Marx	Sargent and Lundy	X
Guest	Jeff	Mizener	Siemens Industry, Inc.	X
Guest	Ashley	Moran	IEEE Standards Association (IEEE-SA)	X
Guest	Roberto	Olivares	Siemens	
Guest	Al	Pruitt	The Durham Company	X
Guest	Larry	Putman	Powell	X
Guest	Mark	Roberson	AZZ/Calvert	
Guest	Erin	Spiewak	IEEE	
Guest	John	Webb	ABB	
Guest	Michael	Whitney	CSA America	