

**Stray and Contact Voltage Working Group**  
**Matthew Norwalk, Chair**  
**Sal Martino, Vice Chair**  
**Scott Kruse, Secretary**

**2023 IEEE PES JTCM**  
**Hyatt Regency Jacksonville Riverfront**  
**Jacksonville, FL**

**January 9, 2023**  
**3PM – 5PM EST**

**Approved Meeting Minutes**

**Attendees**

**Voting Members**

Bryan Beske – Safearth	David Kalokitis - Osmose
Vong Chan – SCE	Scott Kruse - Osmose
Larry Conrad – Conrad Technical Services	Sal Martino – Duke Energy
Masoud Davoudi - PGE	John McDaniel – National Grid
Doug Dorr - EPRI	Chris Mullins – Power Monitors, Inc
Bryan Glenn - SCE	Matt Norwalk– SCE
Kevin Grant – Con Edison	Paul Ortmann – Idaho Power Co.
Joe Grappe – Duke Energy	Andrew Reid – Con Edison
Thomas Gwinn – Unaffiliated	Rob Schaerer – Power Engineers
Stuart Hanebuth – Safety Management Group	Muayad Tarabain – Hydro One

**Non-Voting Members**

Michael Borden – Lindsey Systems	Dilip Kommineni – Liberty Utilities NH
Keith Carpenter – Lindsey Systems	Darren Hoppins – Sensor Link
Anthony Cedrone – Con Edison	Theo Laughner – Lifescale Analytics
Michael Cooper – N//A	Giancarlo Leone – SR3 Engineering
Charlie Fijnvandraat -FCG Energy	Al Powers – P&E Engineering
Don Hall – Quanta Tech	Jeremy Wright - Osmose
John Hofman – Burns & McDonnell	

The Stray and Contact Voltage Working Group met Monday, January 9, 2023. The meeting was held as a hybrid with both in person and virtual attendees. There were 33 people in attendance.

The meeting began with introductions and a check for quorum, which was confirmed through the sign in sheet. The group reviewed the agenda and there were no additions added.

The IEEE patent and copyright slides were reviewed. There were no patents mentioned. The chair encouraged anyone submitting documents for the guide to provide copyright permission.

The group reviewed the meeting minutes from the Denver GM and there were no changes. The minutes were approved with a motion by Chris Mullins and seconded by Doug Dorr.

The Chair presented an update on the NEC Article 608.26(B) Task Group. The group was formed by the NFPA to investigate the use of a single conductor vs a ground grid around inground swimming pools. The group was made up of individuals who represented the interests of utilities, inspectors, and UL. They reviewed technical documents and test results from EPRI's Lennox, MA facility. The group found reason to submit a tentative interim amendment (TIA) with proposed changes in favor of the use of a ground grid which will most likely be submitted for action at the March standards council meeting. If approved the TIA would be published for the current revision and become a recommendation for change in the next edition of the standard.

Doug Dorr initiated a discussion regarding the requirement for a test port that could be used to test the continuity of a ground grid. There were concerns about what the required test would look like and if it would be hard to determine what impedances were acceptable. It was determined that for most pool shock investigations where bonding is likely the issue a basic continuity test could determine if bonds were broken. The Chair proposed adding an informative annex on ways to make bonding safer including a test port.

The Chair mentioned the 2yr PAR extension was submitted and approved, and the new expiration is December 31, 2024.

The Chair stated that the latest draft of the guide was e-mailed to the voting members before the meeting, and any non-voting member interested in reviewing a copy should submit a request to the officers. He encouraged everyone to review the draft in order to hold a vote to approve it within the next few weeks. The chair led the group through the current draft, and Paul Ortmann gave an overview of the load box test. The following action items resulted.

- The case study subgroup will finish formatting the case studies by the end of February. Larry Conrad will submit a case study from his personal experience with an ungrounded well pump. Joe Grappe's case study can also be used.
- Muayad Tarabain will review the additions to 9.4.2.8.1 Intersystem Isolation and suggest changes.
- The Chair will add information on gas line isolation.

The group discussed the timeline for moving the document forward. The expectation is to put the latest draft 3 up for a vote by Jan 31 with an expected deadline for voting of Feb 15. Any comments and changes will be made and the final draft 4 can be voted on by March 1 with a deadline of March 15. Once the final draft gets approved the balloting process will begin.

The final agenda item, Topics for Future Versions of the Guide, was not discussed because of time constraints and will be put on the agenda for the summer meeting.

There was no new business.

Round Table:

Doug Dorr asked if there were any normative references in the guide? The group held a discussion and IEEE 519 and the NEC were possible contenders, but ultimately it was determined that all references are informative.

Sal requested feedback from the virtual attendees on their experience attending the meeting.

Kevin Grant motioned to adjourn, and Sal Martino seconded. Meeting was adjourned.

The next in-person meeting is scheduled to be held at the IEEE General Meeting, July 2023 in Orlando, FL.