Stray and Contact Voltage Working Group
Matthew Norwalk, Chair
Daniel Chen, Vice Chair
Scott Kruse, Secretary

2017 IEEE PES JTCM
New Orleans Marriott
New Orleans, LA

January 9, 2017
1PM – 5PM

Approved Meeting Minutes

Attendees

Bryan Beske - American Transmission Co.
Patrick Carroll – We Energies
Anthony Cedrone - Con Edison of NY
Daniel Chen - Con Edison
Rhys dela Cruz – Con Edison
Alexander Dornhelm – Con Edison
Doug Dorr - EPRI
Andra Flaherty - Snohomish County PUD
Fred Friend – AEP
Stuart Hanebuth - Power Survey Co
Robert Harris - NRECA
Ray Hisayasu - Puget Sound Energy
David Kalokitis - Power Survey Co
Rachel Krepps - Baltimore Gas & Electric
Scott Kruse - Power Survey Co
Frank Lambert – GA. Tech/NEETRAC
Giancarlo Leone – SR3 Engineering, LLC
Sal Martino - EPRI
John McDaniel - National Grid
Mark Murray – Oklahoma Gas & Electric
Neal Murray - EPRI
Robert Naphen - National Grid
Matt Norwalk - SCE
Anil Babu Poda – NEETRAC/ GA. Tech
Allan Powers – P&E Engineering Co.
Robert Schaerer - Power Engineers
Rusty Soderberg - Consumers Energy
Clay Stocklin – Power Engineers, Inc.
Dustin Sullivan – Hubbell Power Systems
Casey Thompson – Southern Company
Mark Voigtsberger - UTGIS
Val Werner - We Energies

The Stray and Contact Voltage Working Group met at the 2017 IEEE PES Joint Technical Committee Meeting on Monday morning January 9th at the New Orleans Marriott in New Orleans, LA. There were approximately 32 people in attendance.

Prior to the meeting Dave Kalokitis, who was assigned to be the election officer, sent out a request for nominees to all voting members of the working group based on eligibility as defined in the new working group Policies and Procedures. There were single nominees for both positions, Daniel Chen, Con Edison for Vice Chair and Scott Kruse, Power Survey Company for Secretary. Since they were both unopposed and had accepted the nominations, Matt appointed the positions to Daniel and Scott for a 2-year term.

The meeting began with a review of the obligatory slides, meeting Agenda and then moved on to a review of the minutes from Boston and the Web meeting. The minutes from both were approved.

Mark Voigtsberger of Utility Testing and Geographic Information Systems, gave a presentation Titled: Direct Reading Instrumentation: Improving the Quality of Manual Contact Voltage Surveys. He discussed the limitations of currently used manual devices and how a direct reading instrument could overcome them. He also stated that this instrument can verify a qualified reference, pinpoint the voltage source, and map the gradient. There were questions from the group regarding the description and measurement circuit of the instrument, which he did not clearly answer. Throughout the Q&A discussion it was unclear if a qualified reference was used to make measurements and how it would have been qualified by the instrument. He referred to arbitrarily placing a ground rod and then qualifying it through a process that he declined to describe. However, he did clarify he was not suggesting a change to the procedure in the guide for using a qualified reference. Mark indicated he provides a testing service and there are commercially available products, although no examples were presented.

Anthony Cedrone presented a few Contact Voltage case studies, but wanted to make it more of a discussion than a presentation. He discussed the type of information that is useful to document and what he does for his Utility. The case studies had pictures of all the objects with voltages, harmonic data and the source found (utility or customer). The group was in agreement, a case study should have pictures or drawings with a simplified schematic, a paragraph explanation and environmental information. He asked the group what types of case studies would be useful for the guide. Some suggestions were sources with high harmonics, assets with harmonics between 5% to 15%, and marina and boat dock. It was also suggested that Utilities that participate in the working group should reach out to other Utilities in their state to get case studies. Additionally, case studies should be used to validate or change the flow charts in the guide. Anthony will put together a case study template.

After a short break, Stu walked the group through the new draft outline for the table of contents and how he approached reorganizing the sections. He suggested that the group come up with a term that defines the voltage present on an object before it gets classified as stray or contact. The chair asked the group for a motion to approve the draft table of contents, it was motioned and all were in favor. The draft was approved.

The group discussed terms that could be used to define the voltage present on an object before it gets classified as stray and contact, and through process of elimination agreed on Exception Voltage. The group voted on the term and it was approved and determined that it could be defined later.

The chair asked for volunteers to be section leads to manage and provide updates on the progress made organizing content for the sections. Once section leads were selected the group broke into smaller groups under each lead to work on identifying content that might need to be added. After 30min or so the group reconvened to discuss what was learned during the break out session.

Section leads: Clause 3 – General discussion - Matt Norwalk, Clause 4 – Human and animal electrical sensitivity - Rob Naphen, Clause 5 – Voltage Sources - Doug Dorr, Clause 6 – Detection and Measurement Equipment - Dave Kalokitis, Clause 7 – Investigation – Stu Hanebuth, Clause 8 – Mitigation – Alex Dornhelm, Clause 9 – Daniel Chen and Rhys dela Cruz, Annexes/Case Studies: Anthony Cedrone.

The Chair will work on posting the draft onto the IEEE iMeet Group Website which will be reorganized to the new table of contents. A web meeting will be setup before the General Meeting to have the Section Leads report on work on the document.

There was no new business to discuss.

The meeting was opened up for roundtable discussion and Sal mentioned that there are requirements for vertical clearances for underbuild.

The meeting adjourned at 4:22PM.

The next meeting will be at the 2017 IEEE PES General Meeting, July 16-20, 2017, in Chicago, IL.