

IEEE PSES TSTC

Meeting Minutes: March 23, 2011

Members present: Don Gies (Alcatel-Lucent), Philip Havens (Littelfuse), Peter Lim (Alpha Technology), , Mick Maytum, Paul Ng (GE Energy), Joe Randolph (Randolph Telecom), Dan Roman (Dialogic), Jim Wiese (Adtran), Steve Zugay (Alcatel-Lucent)

Members absent: Al Martin (Tyco/Raychem), Gary Schrempp (Dell), Tom Smith (TJS Technical Services Inc), Peter Tarver (Ericsson AB)

Discussion topics

- 1) Review last meeting's minutes
- 2) Wiring simulators used in power cross testing
- 3) Outdoor equipment with Pb-acid batteries - revisions to 60950-22 standards
- 4) 380 V system grounding
- 5) RFT circuits - revisions to 60950-21 standards
- 6) SmartGrid - tracking the issues
- 7) Additional agenda items [none]
- 9) Next meeting – 27APR2011

Administrative topics

The minutes from the last meeting were approved as submitted

The meeting members introduced themselves

Wiring simulators used in power cross testing

At Joe Randolph's request, Mick Maytum discussed his attachment, "Wiring Simulators with Punch Line for Joe."

There was discussion as to whether the 32 AWG tinsel-wire punch line was conservative. Joe asked whether GR-1089-CORE covered 32 AWG tinsel-wire. Jim Wiese replied that it did but there is not much reference to 32 AWG because it would be mostly used on customer premises.

Mick commented that tinsel cord could be a problem, and that there is some in the UK. Note that the power

Mick also suggested that the I^2t curve of the fuse recommended under UL 60950-1/CSA C22.2 No. 60950-1 for power-cross testing does not accurately simulate conditions found on is attached curves. Joe and Jim asked how far off is the fuse from the curves provided.

Joe questioned whether we should open a dialog with Randy Ivans – UL, Melville, NY concerning these findings.

Outdoor equipment with Pb-acid batteries - revisions to 60950-22 standards

The committee made a motion, seconded it, and approved forwarding the proposed revision to IEC TC108 via a contact at CSA.

380 V System Grounding

Paul Ng and Don Gies had reviewed the NFPA 70, “National Electrical Code” (2011 Edition), IEC 60950-1, IEC 60364, “Electrical Installations of Buildings,” and BS 7671:2008, “Requirements for Electrical Installations, IEE Wiring Regulations,” (Seventeenth Edition), and found that these documents have sufficient requirements to cover 380 V dc power systems from an insulation, isolation, and earthing point of view

Jim Wiese mentioned that ATIS was looking into these power systems.

Paul and Don mentioned that there is a National Low Voltage Direct Current Workshop being presented on April 8, 2011 just outside Washington, DC (south of the Pentagon, near Washington Reagan National Airport), sponsored by NEMA, UL, and NFPA. Both Paul and Don are registered to attend this workshop. Details for this workshop were sent to the group via the TSTC email alias TSTC@IEEE.ORG.

For anyone still interested in this workshop, registration details and the agenda can be accessed at the NEMA website below:

<http://www.nema.org/events/lvdc.cfm>

RFT circuits - revisions to 60950-21 standards

Jim Wiese discussed this topic. He mentioned that there had not been any progress on the subject until about 3 weeks prior to this meeting, but AT&T had an issue with a system that was Listed to UL 60950-21. He mentioned that Ericsson and Adtran were active in working on a resolution with AT&T.

The TSTC decided to wait for more details to settle before moving forward on any revisions to the 60950-21 standards.

Jim asked if, with IEC 62368 adoption moving forward, would 60950-21 be around in the near future to be amended, and should attention be given to UL 60950-21 or UL 2391 at this time. Mick Maytum mentioned that Edition 2 of IEC 62368 is scheduled for release in 2013, and that IEC 60950-1 is to be amended in 2013 as well.

Jim mentioned that networks follow GR-1089-CORE, and that safety standards are based on Class A3 voltage limits of that standard. Jim suggested that the IEC should allow Class A2 voltage limits. Don Gies noted after the meeting that IEC 62368 has established a system of classifying energy sources E1, E2, and E3, which is somewhat comparable to the classifications A1, A2, and A3 found in GR-1089-CORE.

Smart Grid - Tracking the Issues

To answer the question, “How do smart grid issues relate to this committee?” Don Gies said that the smart grid is a very fertile ground for telecom safety issues. He referenced his paper and presentation from the 2010 IEEE Symposium for Product Conformance Engineering, “Safety of Smart Grid Technology Equipment,” in which he viewed the smart grid as the merger of existing technologies, such as power generation and transmission, communication technology, information technology, metering, and switchgear. His paper from that conference was reprinted in the InCompliance Magazine 2011 Annual Guide. A link to that magazine article is below:

http://www.incompliancemag.com/index.php?option=com_content&view=article&id=612:safety-considerations-for-smart-grid-technology-equipment-&catid=26:design&Itemid=130

Al Martin also presented a paper and presentation at the 2010 ISPCE titled, “Safety Issues and Damage to Equipment with both Smart Grid and Home Network Connections.”

Next meeting – 27 APR 2011

Respectfully submitted,

Don Gies
Vice-Chairman, for

Al Martin
Secretary

**IEEE Product Safety Engineering Society
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Guest: Jack Burns, Dell, IEEE PSES, VP Technical Activities

Chair: Peter Tarver

Vice Chair: Don Gies

Secretary: Al Martin

- 1) UL Standards Technical Panel for Subjects 60950-1, -21, -22, -23
- 2) TIA TR 41.7, TR41.7.1
- 3) IEEE Surge Protective Devices Committee
- 4) ATIS Protection Engineers Group
- 5) ITU-T, SG5, WP1
- 6) Canadian National Subcommittee for IEC TC108
- 7) TIA TR 41.7.10 (Smart Grid)

Other LinkedIn members:

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