

IEEE PSES TSTC

Meeting Minutes: April 27, 2011

Members present: Don Gies (Alcatel-Lucent), Peter Lim (Alpha Technology), Al Martin (TE Connectivity), Mick Maytum, Tom Smith (TJS Technical Services Inc), Joe Randolph (Randolph Telecom), Peter Tarver, Jim Wiese (Adtran), Steve Zugay (Alcatel-Lucent)

Members absent: Philip Havens (Littelfuse), Paul Ng (GE Energy), Dan Roman (Dialogic), Gary Schrempp (Dell),

Discussion topics

1. Attendance/Introductions

The minutes from the last meeting were approved as submitted

Meeting attendance was recorded. Introductions weren't needed, as there were no new members

2. New business

Question about corrosion in the -22 standard. Why doesn't IEC take the same stance as the others on exemptions? Discussion suggested that the IEC standard drew on many other standards when it was created, and ended up with fewer exemptions.

3. Outdoor equipment with lead-acid batteries - revisions to 60950-22 standards

At last meeting, the TSTC voted to send proposal to TC108 via CSA, and this has been done.

Comments: Telcordia GR487 method of measuring hydrogen level different from IEC, and get different results. Need to reduce hydrogen level to less than 2%.

4. Workshop in Washington, DC.

Don Gies attended the National Low Voltage Direct Current Workshop [sponsored by NEMA] on April 8, 2011 just outside Washington, DC. There is interest in standardizing on a 380 V DC powering system. A lot of electrical power goes to electronics, which run on DC. Also local power generation (PV, windpower) is DC. It would make sense to switch residential power from AC to DC, although transmission systems would still be AC. Considering all applications, 380 V DC is the "sweet spot". Existing 3-phase AC wiring is suitable for 380 V DC. The telecom industry would probably be the first to implement a 380 V DC system. Don may have a summary to share.

5. Wiring simulators used in power cross testing

No standards action on this - it's gone into a state of limbo, because no technical experts could be found to form a WG to create a standard. Generally wiring simulators are conservative, except for 32 AWG tinsel cord. But not much tinsel cord around. Peter will look through his files to see if there's anything relevant there. GR-1089 has been changed from draping muslin over a bare wire (an inappropriate indicator) to using wire with a PVC insulation. The potential safety hazard in the current set of standards is telephone line cords. Wireline modems sometimes used tinsel cord, but they are disappearing. Equipment sold today doesn't use tinsel cord, probably due to the use of fire enclosures, which require the use of 26 AWG or heavier.

6. RFT circuits - revisions to 60950-21 standards

UL60950 will likely be around long enough that is worthwhile to amend it. So Jim said he would draft a proposed revision.

7. SmartGrid issues

Don sent a link to his article in In Compliance magazine

[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].

Appliances will now have telecom interfaces. If these are wired, then they could have protection issues.

Communications over power line: Having a hard time implementing broadband over systems that were designed 100 years ago for delivering power.

Initially the power companies thought that Smart Grid communications would be wireless, either via existing networks or via networks to be built . But with the advent of telecom operating companies offering cloud-based communications, it may make more sense to use their existing wired connections.

8. Additional agenda items

Jim sent out a RUS document that recommends putting primary protectors on internal customer ports. Jim noted that, "it is interesting they are suggesting using UL 497 primary protectors on the ONT internal customer ports. The reason is based on large numbers of ONT failures in lightning storms".

In the RUS document, the tracer wire running in a fiber cable was originally required to be grounded at the ONT, but now can be optionally disconnected. Installers would like to have the option of locating the ONT anywhere on the building, and not have to drive a ground rod. NEC Article 840 says that grounding shall be as required by the listing. Otherwise article NEC 770 indicates that the grounding of fiber optic tracer wires is similar to that for coax.

Next meeting – Wednesday May 25.

Respectfully submitted,

Al Martin
Secretary

**IEEE Product Safety Engineering Society
Telecommunications Technical Activities Committee Roster**

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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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