

IEEE Product Safety Engineering Society

Minutes of the IEEE PSES TSTC teleconference held Wednesday, October 22, 2014 at 11:00 AM EST, for one hour.

1. Attendance/Introductions

Members present: Don Gies (Alcatel-Lucent), Al Martin (retired), Mick Maytum (MJMaytum), Dan Roman (Colgate Palmolive), Jim Wiese (Adtran),

Members absent: Tim Ardley (Adtran), Anne Venetta-Richard (Alcatel-Lucent), Philip Havens (Littelfuse), Peter Lim (Alpha Technology), Paul Ng (GE Energy), Doug Parker (Adtran), Gary Schrempp (Dell), Tom Smith (TJS Technical Services Inc), Peter Tarver (Enphase Energy), Steve Zugay (Cree).

2. Meeting arrangements

Don Gies supplied the call-in number:
Bridge No. (Toll Free): 1-800-771-8734
International Access: +1-647-723-3953
Access Code: 5825978

3. Previous meeting minutes (attached)

4. New business

Dan Roman is organizing a joint Product Safety/EMC chapter for New Jersey

5. ANSI/US TAG Meeting for TC 108 – San Diego

Don Gies, Paul Ng attended

6. New RFT standard –IEC 62368-3.

Don Gies is a member of the committee adapting IEC 60950-21 concerning RFT circuits, to IEC 62368. Don asked about the inclusion of cable TV. 60 Hz power is often used for cable TV, but there is no standard for this application. At 60 V, it would be hazardous power. Jim Wiese has sent a number of contributions to ATIS on the subject. These could be sent to the IEC.

JIM: A group in ATIS is getting close to releasing a line powering standard. ATIS proposed an annex to IEC 60950-21 on the subject of line powering, but it wasn't accepted.

Mick: The IEC 60950-21 was modeled on K.50. If Jim can submit an amendment to K.50, Mick can get it added, and it should happen quickly. This should be useable as lever to get something added to IEC 60950-21.

Don: Nothing gets done in IEC unless the issue is championed.

Jim: ATIS was told that nothing will be done in the IEC.

Mick: There is a mechanisms in IEC for getting something done. A National Committee can force a country-specific condition to be written into the standard, and it can't be disputed.

Jim: We don't think anyone can meet the requirements of IEC 60950. It appears that some companies can get a UL listing without meeting the requirements.

Don: We used reinforced insulation in span-powered systems before IEC 60950-21. Jim: There's no requirement for that.

Jim: I'll send all the ATIS stuff I have. ETSI has published a standard for reverse powering.

The TSTC previously had discussions for proposals. Any inputs? Use of metals on outside enclosures – aluminum, copper and stainless steel excluded from testing. Looking for history as to why the exemptions. Robustness of power lines one argument for exemption.

7. UL Subject 1801 vs. IEC61204-7 2nd Ed committee draft – Paul Ng
Tabled until next meeting

8. Telcordia GR-3171-CORE, Issue 2 TTF – Wireless equipment – Don Gies

Telcordia's first try at writing a standard for wireless equipment. Drawing information from many standards.

9. Protection of DC feeds to radio equipment at the top of towers – Al Martin
This is an issue that has a lot of interest with outdoor wireless installations.

a. What protection is typically installed on equipment that will be located at the top of towers, and is any consideration given to the height of the tower?

b. What lightning waveshape is considered when designing protection for equipment to be located at tower tops?

c. Is there any information about the failure of installed protection to protect equipment located at tower tops?

Don: IEC 60950-22, second edition will have a surge requirement of 1.5 kV for DC mains equipment used outdoors.

Mick: Gave presentation to PEG in 2012 on powering tower feeds (the Towering Powering Problem). If the protection of the feed is MOVs, then due to the action of the MOVs, only the initial rise of current is important, since it charges the inductance

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of the feed. Once the inductance is charged the discharge of the inductance results in a linear decline of the surge. ITU-T K.97 has characterized this, plus additional information. The IEEE PES SPDC has a task force to write a document on the subject. Having heard Mick's discussion the IEEE PES SPDC TF meeting on the protection of feeds to RRH, the UL guys have asked if their listing requirements are correct. Since the inductance increases with tower height (and controls the surge amplitude), the listing requirements would depend on tower height. Mick will send a copy of his presentation. The concern is with energy, not waveshape.

Al: There is a correction for tower height depending on location. If located on a mountain top, the effective height is greater than the actual height.

Mick: There's an ITU-T recommendation coming along on the protection of solar powering.

JIM: Sending ETSI standard and the ATIS package sent to UL.

10. Additional agenda items
None

11. Old Business
None

Next meeting – Proposed **Wednesday, 3 December 2014**.