

IEEE Product Safety Engineering Society

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

1. Attendance/Introductions

Members present: Don Gies (Alcatel-Lucent), Al Martin (retired), Joe Randolph (Randolph Telecom), Dan Roman (Colgate Palmolive), Anne Venetta-Richard (Alcatel-Lucent), Jim Wiese (Adtran)

Members absent: Tim Ardley (Adtran), Philip Havens (Littelfuse), Peter Lim (Alpha Technology), Mick Maytum (MJMaytum), 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 Geis 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

The minutes from the last meeting were approved as submitted

4. TC 108 Meeting – San Jose, CA , 12-16 May 2014 – Don Gies

Don Gies attended. The IEEE TSTC proposal on battery cabinet ventilation, amended per recommendations from US TAG Meeting in Melbourne, FL, was accepted in principle at MT2 Meeting for IEC 60950-22, Second Edition. The proposal for Clause 11 of IEC 60950-22, Second Edition is to refer compliance to IEC 62368-1, Annex M, which in turn will be modified in accordance with the proposal. This way, criteria will apply to both indoor and outdoor equipment, as well as be documented in an active standard going forward. There will be a requirement for vent holes. For boost charge the holes need to be 8x larger than for float. IEC 60940-22 will point to IEC 62368-1 Annex M for the procedure on how to do the test.

Added a 1.5 kV withstand for outside DC mains. Denmark asked for 2.5 kV, but that was rejected.

How much of a lightning surge to a tower gets coupled to a DC line running to equipment on the tower?

If there is problem, an advocate is needed to push it forward. Can't just refer it to a representative, because nothing will happen.

5. Protection of DC feeds to radio equipment at the top of towers – Al Martin

- 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? No hard data.

Don: Don't want to run conduit up a tower. But will run shielded cable.

Joe: Towers don't seem to have lightning diversion at the top. Is equipment designed to take a full lightning hit? Are lightning hits considered in the design of equipment?

Don: Generally the equipment has relatively heavy aluminum housings. The housings have heavy bond-wire to the tower.

Al: Modern trend is to run the signal via fiber up the tower and place radio equipment at the tower top. Equipment is powered by 48 V.

Don: I can find out what kind of protection is installed.

6. Lightning Surge Damage to Ethernet and POTS Ports Connected to Inside Wiring - Joe Randolph

Joe's paper was awarded "Best Paper" at the ISPCE 2014 Conference in San Jose, CA.

7. New Business

A. New European Directive 2014/53/EU for radio equipment published, repeals Radio & Telecom Terminal Equipment Directive 1999/5/EC. Low voltage directive says equipment is safe if the power is below 75 V.

B. From UL - EN 62368-1, 2nd Edition passed the vote.

Joe: There is a problem putting more of the decision as to whether there is a hazard on the manufacturers.

Jim: For IEC 62368-1, there is a form to fill out assigning probability to fault types. Multiply the probabilities together to get a number for risk. Issue is that numbers are just made up.

Jim: The issue is that IEC 62368 is not prescriptive, so you can set your own limits, based on your assessment of risk.

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8. Old Business

None

Next meeting

Next meeting – Proposed [Wednesday, 25 June 2014](#).

Respectfully submitted,

Al Martin

Secretary

| Participant | Employer | Telephone | E-mail | IEEE Member? | PSES Member? | LinkedIn Subgroup | Other Committee |
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Guest: Jack Burns, Dell, IEEE PSES, VP Technical Activities

Chair: Peter Tarver

Vice Chair: Don Gies

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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)
- 8) US TAG to IEC TC 108

Other LinkedIn members:

hifi cha, China (Independent Consumer Electronics Professional)

Jeff Whitmire (Manager, Regulatory Compliance at Adtran)

Telecommunications Technical Activities Committee Roster