

## **IEEE Product Safety Engineering Society**

IEEE PSES TSTC

Meeting Minutes: 27 February 2013

Members present: Don Gies (Alcatel-Lucent), Al Martin (TE Connectivity), Mick Maytum, Paul Ng (GE Energy), Joe Randolph (Randolph Telecom), Gary Schrempp (Dell), Peter Tarver (Enphase Energy), Anne Venetta-Richard (Alcatel-Lucent).

Members absent: Tim Ardley (Adtran), Philip Havens (Littelfuse), Doug Parker (Adtran), Dan Roman (Creston Electronics), Tom Smith (TJS Technical Services Inc), Steve Zugay (Cree), Peter Lim (Alpha Technology), Jim Wiese (Adtran).

### **1. Attendance/Introductions**

Attendees introduced themselves.

### **2. Previous meeting minutes**

The minutes from the last meeting was approved as submitted

### **3. New business**

#### *Comments*

Joe: In reviewing documents on wire simulators, it looks like the test prescribed is easier to pass if the 32 gage wire link is used instead of the MDQ fuse.

Mick: Agreed. The cheesecloth used with the wire link doesn't burn until the wire reaches 200 °C, whereas the MDQ fuse simulates PVC melting, which occurs at a much lower temperature. GR1089 Issue 6 added a curve of current vs time as criterion [below the curve was a pass, above the curve was a failure]. This is a much better way of determining whether the circuit can withstand the test currents. TC108 dropped the idea of using wire simulators.

### **4. ATIS/Telcordia Activity**

GR-487-CORE re-write. The 4<sup>th</sup> Edition is about to be published. Input from TSTC members included:

- a. Lifting Details Requirements for Equipment under 90.7 kg/200 lbs that are hoisted to heights. See the attached photo of the squashed truck hit by a falling remote radio head, and the draft re-write, Section 3.13 on the lifting details section.
- b. Harmonizing the battery section with the TSTC's proposal to the IEC on battery ventilation. See the draft re-write of the battery section of the standard, Section 3.24 and our committee's proposal, as it has been sent to the ANSI/US TAG for TC 108.

### **5. US TAG for TC108 Activity**

a. Notes from Don: Second Edition IEC 62368-1 was voted on and approved for recommendation by the US TAG for IEC TC108, but there was a great deal of dissent. Many companies voted negatively because they felt that the standard was not supposed to be prescriptive, but had become so. Also, some believed the understanding was that current product designs which complied with IEC 60950-1 or IEC 60065 would automatically comply with the new standard, and that this idea got lost somewhere along the way as new requirements found their way into IEC 62368-1 without clear rationale as to why requirements were being upgraded, as would have been communicated if these new requirements were introduced into either of the current standards. Others voted negatively because they felt adoptions by national and regional standards organizations would be unfavorable. Some folks felt that the EU would say that once IEC 62368-1 was adopted, compliance to IEC 60950-1 or IEC 60065 could no longer be declared.

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Meeting notes from Don:

A lot of dissent about adopting the IEC 62368-1 standard. The US and Canada have adopted the standard, but it doesn't appear to be widely used.

Example of the benefit of the IEC 62368-1 standard: Under current standard, only restricted access is allowed to hot equipment [e.g. metal surfaces can Reach 90 °C]. The IEC 62368-1 standard allows putting in a time-out before accessing equipment [e.g. wait 30 minutes before accessing]. This would be useful.

Some have complained that it will cost a lot of money to begin qualifying to IEC 62368-1 – is it really necessary to do that?

Some proposals for updating IEC 60950-1 have been made, but they are not significant.

ECMA Technical Report TR/106 *Guidance and Comparison between 60950-1 and 62368-1* was sent out by Don. The Group thought it was very useful, although Mick noted that some digging was still needed to sort out differences [e.g. correlation of TNV circuits to ES]. But it does point you in the right direction.

Don noted that there may be more options to comply with IEC 62368-1 than IEC 60950-1

b. IEC 60950-1-A2 Ed 2.0 revisions are being voted on by the US TAG. All votes are due by March 1, 2013.

### 6. Additional agenda items

None

### 7. Old Business

a. *IEC 62368 – MOV requirements – Mick Maytum*  
No discussion

b. *AC Power Cross Considerations for Non-Telecom Signaling Lines (e.g. Ethernet, Alarms) Run in Outside Plant.*  
No discussion

c. *Smart Grid Issues*

Mick: CIGRE notes that there have been metering problems when trying to put power back into grid. An inverter can put spikes on line, which confuses smart meters.

Peter: Smart meters should be replaced with revenue grade meter, which can tell which way the power is flowing.

Don: Local power company wants to put a wireless control on the air conditioner which would let the power company shut it off during peak load times.

d. *380 V DC power systems.*

Paul Ng: The initiative is still ongoing. Different countries are going their own way – no coherent action. One issue: When you have DC, what are the sources [battery, generators... alternative energy]. A lot of field trials going on. Arc flash in relays are a problem.

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Mick: ITU-T WP3 [Green issues] had 8 contributions on 380 V dc systems. They are working a standard which could be concerned with all aspects of safety. Principal contributions came from Korea, China and Japan. Mick will review the contributions and send Don anything that looks significant.

*e. Solar panel integration*  
No discussion

*f. IEC 62368-1 – Impact on Telecom Industry.*

There has been much discussion from the industry as to whether IEC 62368-1, “Audio, Information and Communication Technology Equipment – Part 1: Safety Requirements,” should be globally adopted as national safety standards, replacing IEC 60950-1 and IEC 60065.

We have heard pros and cons for adoption. The pros tendency is that there are more options available for service-access equipment, whereas the cons tendency is that there are additional tests that will add expense to testing and certification.

With respect to the telecom industry, what are the pros and cons for adopting IEC 62368-1?

### **Next meeting**

Proposed Wednesday, 27 March 2013.

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

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)

**IEEE Product Safety Engineering Society**  
Jeff Whitmire (Manager, Regulatory Compliance at Adtran)

**Telecommunications Technical Activities Committee Roster**