

## **IEEE Product Safety Engineering Society**

Minutes of the IEEE PSES TSTC teleconference held Wednesday, March 19 at 11:00 AM EST, for one hour.

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

Members present: Don Gies (Alcatel-Lucent), Al Martin (Somewhat retired), Mick Maytum (MJMaytum), Paul Ng (GE Energy), Joe Randolph (Randolph Telecom), Dan Roman (Colgate Palmolive), Gary Schrempp (Dell), Anne Venetta-Richard (Alcatel-Lucent), Jim Wiese (Adtran).

Members absent: Tim Ardley (Adtran), Philip Havens (Littelfuse), Doug Parker (Adtran), Tom Smith (TJS Technical Services Inc), Steve Zugay (Cree), Peter Lim (Alpha Technology), Peter Tarver (Enphase Energy).

### **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. US TAG Meeting – Melbourne, FL , 24-25 March 2014business**

Don Gies and Paul Ng will be attending. Will be pushing IEEE TSTC proposal on ventilation of battery cabinets. People still blowing up cabinets that claim to meet IEC 60950-22.

Don: Tests being omitted for cost-cutting reasons. We need to put the requirement for ventilation into a standard.

There may be safety issues with 3D printers, which should be addressed in standards.

### **5. Lightning Surge Damage to Ethernet and POTS Ports Connected to Inside Wiring - Joe Randolph**

Per recommendation from TSTC, Joe Randolph has drafted a paper for the ISPCE 2014 Conference in San Jose, CA. Joe will present paper, Don was thinking of submitting a paper, but didn't have time to do it.

Don: Can use papers as a first step to getting an issue into a standard.

Gary: The discussion of a paper can help shed light on an issue.

## IEEE Product Safety Engineering Society

Joe: Inside lines are seeing surges that none of us expected, especially on Ethernet lines.

Don: What happens if you put primary protectors remote from the building entrance? If they are inside the structure, do they bring surges into the building? Some practices actually make the surge protection problem worse.

Joe: In drafting my paper I was looking for the root cause of surges, but couldn't find anything definitive. So maybe we should just concentrate on protection.

Don: Maybe we should just focus on the statistics of the problem.

Joe: Not that hard to beef up protection – just need to get people to do it.

Jim: Mick and I talked to the IEEE 802 committee about surge protection – they said they don't understand lightning, so will ignore it.

Mick: 802 waits for other groups to develop standards coverage, then just adopt what they have done, without necessarily understanding what they've adopted.

Jim: 802 grabs stuff from other standards without understanding what the standards say.

Don: There are many standards world-wide that cover telecom equipment. You decide on a test standard to use based on the equipment you have.

Don: Bell Labs had a standard for radio towers which was based on a lot of data they took.

Don: NASA has published a good recent paper on lightning. Don tried to send it to the Committee, but it didn't work. Will send out the reference again.

Al: An instrumented tower on Mt Säntis in Switzerland has collected state-of-the art lightning data.

Mick: Chinese have built a mult-strike 8/20 surge generator, which may be a better surge sequence for lightning.

Jim: My experience is that we're not capturing the effects of lightning in current standards.

Mick: Based on Ontario Hydro experience, ring-wave tests might best be done by going to the site in question with a generator that delivers a fast-rising surge, surging the system, and looking to see what happens.

Jim: Equipment that passes GR1089 may fail in the field, so lightning surge testing probably needs to be updated.

Jim: As equipment moves to cabinets, the rise-time of surges impinging on the equipment are faster due to shorter lines and closer proximity to the surge.

Joe: Gas tubes generate transients with a really fast rise-time.

Jim: Gas tubes firing can cause failure.

**IEEE Product Safety Engineering Society**

**6. Additional agenda items**

None

**7. Old Business**

None

**Next meeting**

Next meeting – Proposed [Wednesday, 23 April 2014](#).

Respectfully submitted,

Al Martin

Secretary

Participant	Employer	Telephone	E-mail	IEEE Member?	PSES Member?	LinkedIn Subgroup	Other Committee
Tim Ardley	Adtran		tim.ardley@adtran.com				
Don Gies	Alcatel-Lucent	+1-908-582-5978	don.gies@alcatel-lucent.com	X	X	X	8
Phillip Havens	Littelfuse	+1-214-450-9658	phavens@littelfuse.com			X	2
Peter Lim	Alpha Technologies	+1-604-638-8687	peter.lim@alpha.ca				
Al Martin	Somewhat retired	+1-510-339-2859	amartin@yahoo.com	X		X	3,4
Mick Maytum	Retired	+44-1234-838589	m.j.maytum@ieee.org				3,4,5
Paul Ng	Lineage Power	+1-972-244-9492	paul.s.ng@ge.com				
Doug Parker	Adtran						
Joe Randolph	Randolph Telecom	+1-781-721-2848	jpr@randolph-telecom.com	X	X	X	4
Dan Roman	Colgate Palmolive		dan.roman@ieee.org	X	X	X	
Gary Schrempp	Dell	+1-512-724-3757	gary_schrempp@dell.com	X	X	X	
Tom Smith	TJS Technical Services	+1-403-612-6664	tsmith@tjstechnical.com			X	6
Peter Tarver	Enphase Energy	+1-707-763-4784	ptarver@enphaseenergy.com	X	X	X	
Anne Venetta-Richard	Alcatel-Lucent						
Jim Wiese	Adtran	+1-256-963-8431	jim.wiese@adtran.com			X	2,4
Steve Zugay	Cree	+1-919-850-6219	szugay@bellsouth.net			X	

Guest: Jack Burns, Dell, IEEE PSES, VP Technical Activities

Chair: Peter Tarver

Vice Chair: Don Gies

## **IEEE Product Safety Engineering Society**

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**