



**ASC C63[®] SC5: Immunity Testing and Measurements
Draft Minutes for Tuesday, November 8, 2016
Hilton Orange County, 3050 Bristol Street, Costa Mesa, CA 92626**

Call to Order and Attendance

Since Chair Steve Whitesell was participating in the meeting remotely via WebEx, Vice Chair Ed Hare called the meeting to order at 1:00 pm. An attendance sheet was circulated for sign in. A quorum was present with 11 of 15 members in attendance. There were also 5 observers.

The following SC5 members were present:

Steve Whitesell (Chair) (via WebEx)
Ed Hare (Vice Chair)
Jerry Ramie (Secretary)
Andy Griffin
Don Heirman
Dan Hoolihan

Rick Lombardi (via WebEx)
Randy Long
David Schaefer
Jeff Silberberg
Dave Zimmerman

The following SC5 members were not present:

Poul Andersen
Masud Attayi

Stephen Berger
Craig Fanning

The following observers were also in attendance:

Vladimir Bazhanov
Henry Benitez
Marcus Shellman

Art Wall
Deanna Zakharia

Opening Business

Vice Chair Ed Hare reviewed the draft agenda and asked if there were any additions or changes. There were none. The agenda was approved by consensus.

The Vice Chair displayed and reviewed the C63[®] Patent related slides. He asked if there was anyone aware of essential patents that should be made known. No one spoke up.

The Vice Chair reviewed the draft minutes from the May 10, 2016 meeting and asked if there were any additions or corrections. There were none, and the minutes were then approved by consensus.

Review of Membership

The Vice Chair noted that Guidelines for participation in Subcommittee and Working Group activities may be found on the Subcommittee roster page. Failure to comply with the guidelines may place your membership at risk. It was noted that Poul Anderson and Masud Attayi have now missed two consecutive meetings. The Chair took an Action Item to contact them with a reminder about the membership guidelines and ask if they plan to continue participation in SC5 in the future.

Randy Long pointed out that his affiliation as shown on the website was wrong. Secretary Jerry Ramie took an Action Item to update this information.

Election of New Chair and Vice Chair for 3-Year Terms Commencing 01/01/2017

The Chair and Vice Chair have reached the end of their terms. Since this was the second consecutive term for each, they cannot continue in these roles. Mr. Hare asked if there were any volunteers to serve as Chair. There were none. Mr. Hare then indicated he was willing to again take on this role (he had served as SC5 Chair prior to Mr. Whitesell). Dan Hoolihan moved, and Don Heirman seconded, that Ed Hare be elected SC5 Chair. His election was confirmed by unanimous voice vote.

Mr. Hare then asked if there were any volunteers for Vice Chair. Since there were none, Mr. Hare suggested that Mr. Whitesell take on that role. Randy Long moved, and Don Heirman seconded, that Steve Whitesell be elected SC5 Vice Chair. His election was confirmed by unanimous voice vote.

Secretary Jerry Ramie was given an Action Item to update the Officer's page and public/private rosters to show SC5 officers correctly.

Review of Subcommittee Scope

The Vice Chair briefly reviewed the subcommittee scope, which is as follows:

Subcommittee 5 is responsible for developing and maintaining new and existing standards for immunity testing techniques and associated instrumentation as requested by the Main Committee ANSI ASC C63®.

No discussion ensued.

Review of Subcommittee Responsibilities – Working Group Reports

The Duties of the subcommittee are the development, maintenance, and revision, as appropriate, of the following documents:

- C63.9 Immunity of Audio Office Equipment
- C63.15 Immunity Measurement of Electrical and Electronic Equipment
- C63.16 ESD Test Methodologies
- C63.24 Generic In-Situ Immunity Testing

C63.9 (Immunity of Audio Office Equipment) – Andy Griffin is the WG Chair. A PINS was approved at the May 2016 meeting. Ed Hare and Don Heirman have agreed to be members of the WG. Additional volunteers are welcome. The Working Group needs to begin making progress on the revision. Mr. Whitesell has suggested that regular WebEx meetings be considered. Mr. Hare suggested that a webinar be set up to discuss how to generate interest in joining the Working Group and beginning making progress. Mr. Griffin will take this as an Action Item.

C63.15 (Immunity of Electrical and Electronic Equipment) – Don Heirman is the WG Chair. An active Working Group has completed a revised draft of the document and believes it is about ready to be submitted for ballot. A near final version was previously circulated to SC5 members (email dated 29 Sept 2016). Mr. Heirman presented the Table of Contents for the draft and pointed out content that is unique to this document (power required, telecom terminal equipment, commercial RF conducted immunity, quasi-static test, etc.). Based on discussion that had occurred during the WG meeting in the morning, Don took an Action Item to add an Overview statement noting that extracted text from SAE cannot be changed during any future amendments without permission from SAE. He then moved that SC5 approve submitting C63.15 D1.02 to the Main Committee for consensus to form a ballot group and to ballot the document. The motion was approved unanimously. Secretary Jerry Ramey took an Action Item to submit the document to the Main Committee members for their consideration once Don adds the Overview comments about SAE.

C63.16 (ESD Testing Guide) – Steve Whitesell is the WG Chair. Publication of the document was announced during the May meeting. Don Heirman pointed out that unique material in this document, particularly the information in Chapter 7 on charged peripheral and charged EUT testing, should be submitted to the US National Committee (SC77B) to present to SC77B of the IEC for consideration of inclusion in the next version of IEC 61000-4-2. This is being done. Jeff Silberberg pointed out that the FDA is considering the document for "recognition."

C63.24 (In Situ Immunity Evaluation) – Don Heirman is the WG Chair. A new Working Group has been formed with David Schaefer, Jeff Silberberg, and Ed Hare as members. Additional participants are welcome. The original intent of this project was to extend the concepts of C63.18 concerning on-site

evaluation of medical equipment immunity to other product areas. Don has proposed that the project be worked jointly with the EMC Society's revision of IEEE 473 (in situ emissions testing) chaired by Chad Kiger. Some WebEx meetings have been held and action items are being worked. The need to take into account new radio technologies has been noted. One of the items coming out of these joint webinars is the subject of test setup constraints. Don displayed text from IEEE 473 discussing documentation of test site characteristics using a detailed map that includes:

1. Above ground structures, such as buildings (note type of construction), metallic fences, and broadcast antennas
2. Suspended cables, such as power, telephone, and those used for cable television (note the number of cables, routing, location of drop wires, power-line ratings, and the type, number, and location of supporting structures)
3. Underground conduits for water, power, gas, oil, etc.
4. Other major obstacles associated with the terrain, including foliage (note density)

The need to identify and document specific RF sources on the map, including their schedule of operation and details of the type of radiated emission (power, antenna directivity, modulation, polarization, etc.) is also pointed out in the IEEE 473 excerpt.

Don felt that IEEE 473 should bring back indoor in-situ test sites. Two Standards would result, with significant harmonization. Jeff Silberberg noted that the intent of C63.18 was specialized to make testing easy and low-cost. Dave Schaefer agreed that a more-detailed test setup should be included in our C63.24. He has received requests for other kinds of in-situ tests as well, such as ESD.

Other Old Business

In the discussion under old business, the importance of making new information developed in SC5 available to the international community was pointed out. Future Chair Ed Hare was given an Action Item to ensure there is strong representation from SC5 in SC3 in order to make this happen.

New Business

None

Action Item Review

All Action Items from the previous meeting were deemed closed. New Action Items resulting from this meeting are shown in the attached Action Item List.

Next Meeting and Adjournment

The next C63 meeting will be May 8 - 11, 2017 at A2LA in Frederick, MD. The SC5 meeting is expected to be on Tuesday, May 9. The meeting was adjourned at 2:14 pm.

Action Item List

AI #	Task	Responsible Party	Due Date
AI-30:	Steve to contact Poul Andersen and Masud Attayi and ask if they will participate in the future.	Steve Whitesell	Next meeting
AI-31:	Jerry to update affiliation for Randy Long	Jerry Ramie	CLOSED 11/17/16
AI-32:	Jerry to update Officer's page and public/private rosters to show SC5 officers correctly	Jerry Ramie	CLOSED 11/17/16
AI-33:	Andy to set up a webinar to discuss how to generate interest in joining the C63.9 Working Group and beginning making progress.	Andy Griffin	Next meeting
AI-34:	Don to add an Overview to C63.15 draft noting that extracted text from SAE cannot be changed during any future amendments without permission from SAE	Don Heirman	11/30/16
AI-35:	Jerry to send the finished C63.15 draft (after overview comments are inserted) to Main Committee members for consideration	Jerry Ramie Don Heirman	CLOSED sent 12/12/16
AI-36:	The future Chair of SC5 (Ed Hare) to ensure that there is strong representation of SC5 in SC3	Ed Hare	Next meeting