

Meeting Minutes
ANSI-Accredited Standards Committee C63[®]
Electromagnetic Compatibility

SUBCOMMITTEE 2 – E3 Terminology Definitions and EMC Best Practices

Wednesday, 08 November 2017, 1500 to 1700
ETS Lindgren, Cedar Park, TX

1. **Call to Order.** Mr. Chris Dilay, SC2 Chairman, called the meeting to order.
 - 1.1. Opening Remarks: The chairman welcomed everyone to the meeting and recognized the SC2 officers.
 - 1.2. Meeting Logistics Announcements: The chairman addressed meeting arrangements for the afternoon sessions.
 - 1.3. Introductions: The chairman called for a round of introductions from meeting attendees. The attendee list appears in Attachment 1.
2. **Review and Adoption of the Consent Agenda.**
 - 2.1. The chairman presented the agenda. Motion to approve the agenda as written was passed by voice vote. See Attachment 2.
 - 2.2. The C63[®] Patent Policy slides were presented as they appear on the C63[®] public website and reviewed as required.
3. **Review of Subcommittee Membership, Scope and Duties.**
 - 3.1. **Membership.** The chairman displayed SC2 membership guidelines for review. He reiterated C63[®] policy that all subcommittee chairs are automatically members of SC2. The membership list from the C63 website was displayed. He addressed members at risk and noted that Tom Wojtaszek, who has taken temporary position at SPAWAR, may be away from SC2 support for as long as a year but will remain on the roster for the time being. Mr. Dilay will assume SC2 website duties in his absence. The meeting attendance log going back to May 2015 was shown, with members at risk highlighted on the display. He noted that a number of those indicated as at risk are SC chairmen. Since SC chairs cannot be at risk of being removed from the subcommittee, he proposed that for purposes of their representation SC chairs should be able to appoint one of their SC members as an alternate, acknowledging that in a number of

cases SC members attend and could be counted as representing the chair. After discussion it was agreed that SC chairs should be able to appoint an alternate, however, that person must be adept at definitions development in the respective standards of the SC. Mr. Dilay took an action to bring the decision to the C63[®] Steering Committee. Bob Hoffman's membership was brought into question based on indications in the report. Mr. Dilay stated that had been recently contacted and stated his desire to remain a member of the subcommittee. After discussion it was decided he should be removed from the membership list, but kept on distribution for all SC2 activities and continue to be invited to SC2 meetings. The chairman noted going forward that meeting attendance at the working group level will be tracked, as well. (see Action Item 20171108-1)

- 3.2. The chairman addressed the consideration of new members for SC2 stating that he has not received any new applications for membership. No new members have been added to the SC2 roster at this time.
- 3.3. **Scope and Duties.** The SC2 Scope was presented for review. There were no proposed changes.
- 3.4. **Review and Adoption of Previous Meeting Minutes.** The chairman called for a review of the SC2 meeting minutes from the meeting held at the A2LA Headquarters, Frederick, MD on 09 May 2017. A motion to approve the minutes as written was passed by voice vote. The minutes will be forwarded to Mr. Jerry Ramie for posting onto the ASC C63[®] public website and SC2 member webpage. It was noted that this agenda item was not in place on the agenda template provided by Mr. Ramie. Mr. Dilay took an action to provide him with this amendment to the template for action. (see Action Item 20171108- 2)
- 3.5. **Election of Officers.** Mr. Dilay noted that his 1st 3 year term as chairman is up this year, and while it's not unusual for chairs to serve two successive terms, he expressed the desire to forego a second term due to issues associated with his agency. A motion was subsequently put forth to nominate Marcus Shellman as the new Chairman of SC2. The motion passed by voice vote. Motions to nominate Chris Dilay as Vice-Chair and for Michael Duncanson to continue in the role of SC2 Secretary were also passed by voice vote.

4. **Action Item Review.** Action items from the previous meeting were reviewed and resolved as shown below:

#	<u>ACTION ITEM</u>	<u>Disposition</u>
20170905-1	Mr. Dilay to provide Jerry Ramie with identified updates to the SC2 membership list posted on the C63 [®] website.	CLOSED

#	<u>ACTION ITEM</u>	<u>Disposition</u>
20170905-2	Mr. Dilay to distribute a memorandum to C63 [®] Main Committee members to solicit WG2 participation.	CLOSED
20170905-3	Mr. Ramie to update the SC2 membership list and other information on the C63 [®] website upon receipt needed changes from Mr. Dilay.	Ongoing
20170905-4	C63 [®] subcommittee chairs to coordinate with SC2 on development of their terms and definitions.	Ongoing

Note: This agenda item was repositioned to this point in the meeting after discussion and agreement. The decision will be added to Action Item 20171108- 2, to provide Mr. Ramie with changes to the subcommittee meeting agenda template.

5. SC2 Status and Working Group Reports

5.1. **Working Group 1 Report.**

5.1.1. Mr. Duncanson provided an update of WG1 activities since the last meeting, beginning with a review of the established SC2 rules for adding new terms and definitions to draft ANSI C63.14-20XX. He displayed the SC2 coordination process and went on to cite the rules for terms and definitions sourced from C63[®] standards, military standards, the treatment of acronyms, C63[®] developed definitions and inputs from international standards. He noted a recent addition to the rules having to do with proposed definitions that represent an update to a definition from a previous version of the same standard. He stated that in the case where the two definitions are essentially identical, only exhibiting minor differences that do not affect the technical meaning, it was decided that the existing .14 definition will be replaced by the new one, a precedent set at the last SC2 meeting with the review of draft ANSI C63.5.

5.1.2. He provided a update status on the SC2 reviews of draft ANSI C63.4a 2017 and ANSI C63.15 20XX. He reported that the definitions in .4a are the original definitions from ANSI C63.14-2014 and explained that the cutoff date for definitions going into .14-2014 and the balloting date for .4-2014 coincided leaving a gap in SC2 coordination activity and a missed opportunity to review C63.4-2014 definitions prior to publishing. The SC2 review found a significant number of definitions that met the criteria discussed above, where new definitions updated those from previous versions of .4. He also noted that with both reviews there were a number of instances where attributions to other standards were provided but no indications provided as to whether copyright approval had been obtained for use of the definitions.

5.1.3. Mr. Duncanson provided an update status of SC2 standards coordination and planning based on the schedule of potential 2018 C63[®] balloting. He reported that invitations for coordination with SC2 on the drafts of C63.25, C63.29, C63.30 and C63.31 have been sent out to the chairs of the working groups developing those standards. He recounted related discussion and conclusions drawn at the 7 November SC2 WG1 meeting concerning the failure in many cases of subcommittees to coordinate their terms and definitions prior to going into balloting. Chief among the conclusions drawn was the desire for a C63[®] process rules change that would make the SC2 terms/definitions review and resolution of all related issues entrance criteria for the C63[®] balloting process. It was agreed this idea would be brought before the Steering Committee for possible adjudication at the C63[®] Main Committee meeting. Mr. Dilay noted that as a part of this overall process change it was also decided that SC2 would develop a repository of all terms and definitions residing in published C63 standards, to enable a cross check of proposed new definitions versus what's in .14 and all existing C63 standards for assurance that changes won't negatively impact current standards. There was significant discussion on the topic, which also addressed what to do about terms and definitions in .14 attributed to references that no longer exist. In these cases it was determined that engineering judgement would provide the best indicator as to whether a definition should stay in .14 or be removed along with the reference. (see Action Item 20171108- 3)

5.2. **Working Group 2 Report: Best Practices Guide**

5.2.1. The chairman provided a status update for the draft ANSI C63.28-20XX development effort, noting the lack of significant activity on the working group since the May meetings in Frederick. He highlighted the new industry participation on the working group with the additions of Mr. Ed Hare and Mr. Richard Worley to the WG2 membership roster at the 7 November meeting. He discussed the significance of gaining the industry perspective in order to produce a well-balanced product.

5.2.2. He presented the Strawman originally showed at the last meeting and stated that it was updated at the WG2 meeting for development of the guide providing a brief description of the proposed contents of each section. He addressed in particular, an addition to the "Approach," section of the document which resulted from WG2 meeting discussion the previous day. He detailed new considerations for the sequence of testing, noting the importance of the order of the test events when evaluating a product for EMC compliance. He related as one example DoD experience with the potential pitfalls of EMC testing conducted after other types of environmental qualification testing, such as shock and vibration testing, where failures in EMC compliance could be attributed to the compromise of equipment EMC design measures (i.e. RF gasketing/shielding)by the earlier testing. He

discussed the open action to poll EMC labs, military and commercial about the equipment issues most often seen in compliance testing. He also touched on issues related to the selection of standards, standards comparisons, and tailoring of requirements.

5.2.3. The Chairman noted he intends to further enhance details in the Strawman and begin development of writing assignments for the draft standard. In conjunction with dispensing writing assignments among working group members for individual sections, he also intends to hold bi-monthly WebEx meetings focused on developing the draft, beginning in January 2018. He noted again that there is still a need for more participation from industry to address the commercial perspective.

6. **Old Business.** None identified.
7. **New Business.** Proposed process change for the C63[®] balloting process discussed in 5.1.3 will be brought before the Steering Committee for potential action at the C63[®] Main Committee meeting.
8. **SC2 website maintenance.** Mr. Dilay provided a report on the status of the SC 2 public site, noting that the site is all up to date. He also provided an update on the SC2 member's site with an overview member's area and archived documents.
9. **Action Item Review.** Newly assigned actions appear below:

#	<u>ACTION ITEM</u>	<u>Disposition</u>
20171108-1	Mr. Dilay to bring before the Steering Committee the SC2 membership guideline change to allow SC Chairs to designate an alternate to attend SC2 meetings for the purpose of maintaining their membership in good standing.	11/09/2017
20171108- 2	Mr. Dilay to provide Jerry Ramie with identified updates to the SC2 meeting agenda template, to reposition as discussed: (1) the action item review; and (2) the review and acceptance of minutes of the previous meeting.	ASAP
20171108- 3	Mr. Dilay to bring before the Steering Committee the proposal for a C63 [®] process rules change, to make the SC2 terms/definitions review and resolution of all related issues entrance criteria for the C63 [®] balloting process.	11/09/2017
20171108- 4	Mr. Ramie to update the SC2 membership list and other information on the C63 [®] website upon receipt needed changes from Mr. Dilay.	Ongoing
20171108- 5	C63 [®] subcommittee chairs to coordinate with SC2 on development of their terms and definitions.	Ongoing

10. **C63[®] Newsletter Input.** Mr. Dilay stated that preparation of the newsletter input is pending, but would be provided to Mr. Zimmerman.

11. **Next Meeting.** The next SC2 meeting is scheduled for April 30th to May 4th at IEEE Headquarters, Piscataway, NJ.

12. **Adjournment.** The SC2 meeting was successfully completed as scheduled. The chairman adjourned the meeting at 1700.

Attachment 1

**SC2 Meeting Attendance List (November 8, 2017)
ETS Lindgren, Cedar Park, TX**

NAME	TITLE	EMAIL
Chris Dilay	Chair, SC2	chris.dilay@navy.mil
Marcus Shellman	Vice Chair, SC2	marcus.shellman.civ@mail.mil
Michael Duncanson	Secretary, SC2	michael.duncanson@aecom.com
Tomasz Wojtaszek	Web Coordinator, SC2	tomasz.wojtaszek@navy.mil
Dan Hoolihan	Chair, C63 [®]	danhoolihanemc@aol.com
Jerry Ramie	Secretary, C63 [®]	jramie@arctechnical.com
Don Heirman	Chair, SC3	d.heirman@ieee.org
Bob Delisi	Chair, SC4	bob.delisi@ul.com
Ed Hare	Chair, SC5	WIRFI@arrl.org
Randy Long	Chair, SC6	rlong@anab.org
Janet O'Neil	Member	j.n.oneil@ieee.org
Jeff Moser	Guest	Jeffrey.D.Moser@ul.com
Mike Antola	Guest	Michael.Antola@Honeywell.com
Rick Lombardi	Guest	rlombar1@visteon.com

Attachment 2



Accredited Standards Committee C63®

Electromagnetic Compatibility

Subcommittee 2: E3 Terminology Definitions and Best Practices

Chair: Chris Dilay

Vice Chair: Marcus Shellman Secretary: Michael Duncanson
November 8, 2017; 3:00-5:00 PM - CST

ETS Lindgren
Cedar Park, Texas

Draft Meeting Agenda
[\(Information about the Meeting\)](#)

1. Call to Order: Chair

1.1 Announcements: Chair

1.2 Meeting logistics announcements: Host

1.3 Introductions: Secretary – roll call (insert attendee names)

2. Approval of the Consent Agenda: Secretary

The Consent Agenda consists of the meeting items below, an acknowledgement of the acceptance of the terms in the [patent slides](#) by all attendees and the approval of the minutes of the previous meeting.

3. Review of [Subcommittee Membership](#), [Scope and Duties](#)

3.1 Review of Membership Guidelines – any members at risk?

3.2 Consideration of new members?

3.3 Approval of Scope and Duties

3.4 Election of Officers

4. Working Group reports – Chair

4.1 C63.14 – Definitions – Shellman

4.1.1 Current Status: Review of new C63 standard draft terms and definitions.

4.1.2 ANSI C63.14-2019 development schedule

4.1.3 Coordination with other C63 subcommittees on terms/definitions and copyright approvals.

4.2 C63.28 – Best Practices for Electromagnetic Compatibility – Dilay

4.2.1 Current Status

5. Other Old Business: Chair

- 6. New Business: Chair**
- 7. C63.org website use and updates: Secretary**
- 8. Review of the Action Items: Secretary**
 - 8.1 Review of Action Items from previous meeting: Secretary**
 - 8.2 Review of Action Items from this meeting: Secretary**
- 9. Time and place of next meeting: Chair**
- 10. Closing remarks and Adjournment: Chair**

Current SC2 Officers and web coordinator:

SC2 Chair: Chris Dilay, chris.dilay@navy.mil

SC2 Vice Chair: Marcus Shellman, Jr., marcus.shellman.civ@mail.mil

SC2 Secretary: Mike Duncanson, michael.duncanson@aecom.com

SC2 Web Coordinator: Tomasz Wojtaszek, tomasz.wojtaszek@navy.mil

Attachment 3

SC2 Membership List

Chairman – Chris Dilay
ASC C63[®] / SC2 Membership Roster

NAME	TITLE	EMAIL
Mr. Chris Dilay	Chair, SC2 (WG1/WG2)	chris.dilay@navy.mil
Mr. Marcus Shellman	Vice Chair, SC2 (WG1/WG2)	marcus.shellman.civ@mail.mil
Mr. Michael Duncanson	Secretary, SC2 (WG1/WG2)	michael.duncanson@acc.com
Mr. Tomasz Wojtaszek	Web Coordinator, SC2 (WG1/WG2)	tomasz.wojtaszek@navy.mil
Mr. Dan Hoolihan	Chair, C63 [®] (WG2)	danhoolihanemc@aol.com
Mr. Zhong Chen	Chair, SC1	zhong.chen@ets-lindgren.com
Mr. Don Heirman	Chair, SC3 (WG2)	d.heirman@ieee.org
Mr. Art Wall	Chair, SC4	artwall43@gmail.com
Mr. Ed Hare	Chair, SC5	WIRFI@arrl.org
Mr. Randy Long	Chair, SC6	rlong@anab.org
Mr. Vladimir Bazhanov	Chair, SC7	vladimir.bazhanov@ericsson.com
Mr. Stephen Berger	Chair, SC8	stephen.berger@ieee.org
Mr. Harry Hodes	Member (WG1/2)	harry.hodes@baclcorp.com
Mr. Victor Kuczynski	Member	vican@on.aibn.com
Ms. Janet O'Neil	Member	j.n.oneil@ieee.org