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June 11, 1991

MINUTES OF THE IEEE EMCS STANDARDS COMMITTEE

MAY 17, 1991  
8:00 to 10:00 A.M.  
Palmer House Hotel  
Chicago, Illinois

MEMBERS PRESENT

Don Heirman, Chairman  
Stephen Berger  
Gene Knowles  
Dan Hoolihan

Ed Bronaugh  
Dave Traver  
Gene Cory  
Hugh Denny

MEMBERS ABSENT

Leonard Thomas, Sr.  
Jim Parker

Risaburo Sato  
Ralph Showers

OTHERS PRESENT

Joe Butler

Warren Kesselman

ADDITIONAL MINUTES DISTRIBUTION

George Kunkel (P509)  
Bob Egan (P1190)  
Sue Vogel (IEEE)

Dheena Moongilan (P1140)  
Anatoly Tsalovich (P1128)  
Terry deCourcelle (IEEE)

MINUTES

1.0 Call to Order - The chairman opened the meeting at 8:00 A.M. and welcomed the attenders to the meeting. (See attachment A - Agenda, attachment B - Board Report)

1.1 Nominees for Balloting Membership for 1991 - The Chair reported that D. Hoolihan had suggested Dave Staggs and Joe Butler for membership on the standards committee (Attachment C). The Chair requested that these nominees be considered by the committee and that a voice vote on their candidacy be conducted during the August committee meeting.

The Sec. reported that Art Wall had suggested Richard Fabina for membership (Attachment D). The Chair asked that the Sec. contact Mr. Fabina and ask him to send a letter requesting membership and summarizing his qualifications.

A discussion followed of the need for members to attend committee meetings. The Chair requested a volunteer to write a formal criterion for membership on the standards committee.  
A.I. G. Knowles agreed to write such a criterion which is to include a 1 year grandfather period.

1.3 Amendments to the Agenda - The Chair amended the agenda for the meeting as follows:

- 3.7 P299
- 5.3 Status of Reconfirmation Ballot
- 6.6 Standards Awards
- 6.7 Membership on Standards Board
- 6.8 FCC Design Practice

2.0 Review of Minutes of the Last Meeting - The minutes of the November 9, 1990 and February 8, 1991 meeting were reviewed.

The Sec. was asked to add page numbers to the minutes of November 9, 1990. In paragraph 3.2 W. Eto should be W. Eato. With these changes the minutes of November 9, 1990 were approved.

The following corrections were made to the minutes of the February 8, 1991 meeting:

1. On the first page: Houlihan should be Hoolihan  
Kunkle should be Kunkel  
Dhenna should be Dheena
2. On page 4, under 3.6 - P1140 the action item is to write a letter to the president of the IEEE EMCS not the IEEE. This is to be corrected twice in this paragraph and in the attached action item list.

3. On page 5, under 5.6 - An action item should be added for G. Cory to submit the names listed for Standards Medallion Award.
4. On page 6, under 7.0 - Houlihan should be Hoolihan.

With these changes the minutes of the February 8, 1991 meeting were approved.

- 3.0 Review of Standards Activities - The Chair announced that he had asked the IEEE to publish a compendium of EMC specifications. This would be produced once 299 was published so that this significant standard could be included in the compendium.
- 3.2 Standard 475 - (Secretary) The Sec. reported that this standard had been balloted and would be submitted shortly for renewal. (On reviewing these notes this report was in error. 473 has been successfully balloted and is being submitted  
A.I. for renewal. 475 needs a W/G chairman to complete the task of updating the standard.
- 3.2 Standard P482 - (Parker) The Chair. read the report from the W/G chairman (Attachment E). A new PAR is expected by 9/15/91, after the W/G meeting at the August Symposium.
- 3.3 Standard P509 - (Parker and Kunkel) The Chair asked H. Denny to give his opinion on this effort by a formal report for the next meeting of the committee. The Chair then announced that the report from TC-4 regarding this project had been submitted. He read portions of this report (Attachment F). He then read portions of a letter from J. Parker to D. Averkamp (Attachment G). E. Bronaugh asked if D. Averkamp had  
A.I. responded to this letter. The Chair responded that he had not and asked that J. Parker secure his response. (Sec. Note: this response was secured and is included in attachment G) It was further suggested that he may want to invite Mr. Averkamp to the TC-4 meeting at the Symposium to personally relay his view along with the report from H. Denny's ad hoc group.

The Chair then read portions of a letter from G. Kunkel (Attachment H). He then commented that the sponsor of this standard is TC-4. TC-4 is then the primary arbitrator of any impasse. The EMCS Standards Committee is the second arbitrator should TC-4 find itself unable to resolve an issue.

The Chair then opened the subject for discussion by the full committee. D. Traver commented on his belief that the test fixture was required in the standard. Several voiced their

agreement. E. Bronaugh noted that if the SAE will keep their standard technically current then it is possible that P509 is not needed. H. Denny suggested that the project may be valid but that the current W/G chairman may be at an impasse with the consensus already expressed. The Chair responded that if such were the case either the EMCS Standards Committee could take action or TC-4 could restructure the W/G. Further discussion clarified the attachments which had been previously read. The consensus was that TC-4 should actively pursue the resolution of the various problems. The EMCS Standards Committee will not act until it has been determined that TC-4 is unable to resolve the pertinent issues. The Chair concluded by noting

A.I. that P509 is now 10 years old and needs to be completed. H. Denny asked the Sec. to send him copies of the three previously mentioned letters ASAP.

3.4 Standard P1128 - (Tsaliovich) There was a report from the WG Chair (Attachment I). The Chair commented that this W/G had lost some momentum because several key people had to go inactive for various reasons. However, the urgent need for this standard had been conveyed to the W/G chairman. The first draft is under review. D. Hoolihan asked if ferrite tiles would be considered. The Chair responded that they could be included but that the primary focus was on carbon loaded foam. The committee indicated its concern for the inclusion of ferrite materials due to their increasing use and the need to increase measurements into the GHz range. It was recommended that W/G 1128 consider this not for this draft but at a latter revision in order not to further impede the progress of this effort.

3.5 Standard P1140 - (Moongilan) The latest draft (draft 5) and some recent responses to this draft were handed out (Attachment J - W/G Chairman's Report and Attachment K - P1140 Draft 5). The Chair reviewed that history of this effort. He reported that in February a compromise had been reached at NESCOM. The EMCS will retain the primary effort. The Computer Society will address system test and can address exposure limits but not VDT measurements. The Chair then read the CBEMA comment on Appendix D of P1140 draft 5 (Attachment L).

The Chair requested a motion on how to guide P1140 in regard to its ad hoc W/G and 1140.1. The desire was to expedite the work of P1140 while simultaneously insuring technical soundness for the document. G. Cory moved that the work of P1140 should be contained within P1140 as an unofficial draft and that the W/G should take the advice of the EMCS Standards Committee as conveyed by the Chair to the W/G. The motion was seconded and passed.

E. Bronaugh then suggested that the current draft be received from the ad hoc W/G and that the ad hoc W/G to P1140 be thanked for their considerable efforts and be disbanded. The W/G under the chairman of the W/G will then complete the draft. The motion was then seconded and discussion followed.

G. Knowles moved that the motion be amended to include the naming of a new ad hoc review committee chairman. This chairman, when named would be responsible to perform a thorough technical review of the current draft and resolve the technical concerns with it. E. Bronaugh restated his motion with the amendment. The motion was seconded and

A.I. passed. The Sec. as asked to contact R. Tell or D. Staggs and invite them to chair the ad hoc review committee. Realizing the urgency of this work their actions are to be reported by the August meeting.

3.6 Standard P1190 - (Egan) The Sec. reported on the recent correspondence from the W/G (Attachment M) and their latest draft (Attachment N).

3.7 Standard P299 - (Knowles) The W/G chairman present his report (Attachment O). This standard is currently undergoing final editing before publication. Additional comments and suggestions are already being received which will be

A.I. considered in the next update of the standard. A new PAR will be submitted in order to begin work on the next version of this standard.

#### 4.0 New Business

4.1 New Standards - The Chair reported that minimal response had been received to the appeal for the TC's to actively advance new standards projects. The Chair will again appeal at the Technical Advisory Committee meeting at the symposium for support.

He asked the committee for their suggestions for new standards. E. Bronaugh suggested a need for a calibration standard for isotropic probes. H. Denny agreed with this need. The Chair suggested that this subject should be brought to TC-2 for review and possible adoption as its sponsor.

S. Berger suggested that there is a real need for EMC layout guidance. A standard covering only one and two layer PWB's would be very helpful. He further suggested that the techniques for such a standard are well known in the EMC community. What is missing is a well developed presentation which could be followed by the non-specialist.

The Chair reported that the FCC had written asking about a possible EMC design guide. The concept would be that a design criterion might be developed, which when followed would exempt the subject product from much of the currently mandated testing.

5.0 Old Business

5.1 Review of MUG, mailing addresses, ballots, attendance data

A.I. The Chair requested that the ballot/attendance summary be updated and keep current going back two years.

5.2 Review of Action Items from the Last Three meetings -

There was a review of Action Items from the last three meetings. Disposition and status are shown in the attached Action Item Lists which are appended to these minutes.

5.3 Reconfirmation of Balloting membership for 1991 - The Sec. reported that all current members of the standards committee had reconfirmed their continued participation. Mr. Art Wall had declined participation, as he had last year.

6.0 New Business

6.1 ANSI C95.1/C95.3/C95.5 Review - The Chair has processed the responses received on the review of these drafts and forwarded a letter to ANSI C95 (Attachment P).

6.2 Quarterly Status Report on all IEEE Standards - The Sec. was

A.I. asked to review the Quarterly Status Report and correct any errors found.

6.3 Standards Activities for the 1991 EMC Symposium - The Chair reported that all the meeting space is filled at the Symposium. Any additional meetings will have to take place at other hotels. He expressed his pleasure at the active advancement of the various projects by the W/G meetings being held in Cherry Hill.

6.4 W/G Participation - Due to the lateness of the hour discussion was differed until the next meeting.

6.5 Liaison with ANSI ASC C63 - The Chair asked E. Bronaugh to report on the nature of the liaison relationship. E. Bronaugh reported that P1140 and P1190 had caused activity to be set aside in C63 pending the outcome of these projects. The Chair underscored the importance of close cooperation.

6.6 Standards Awards - G. Cory reported that the four nominees (Attachment Q) had been approved by the IEEE and the awards are in process. He hopes to present the awards at the Cherry

A.I. Hill Symposium. G. Cory will contact the winners to confirm their attendance. After discussion a consensus by the committee was reached to give the Chair discretion to fund travel arrangements on a limited basis.

6.7 Membership on Standards Board - E. Bronaugh read a letter from Dennis Bodson requesting nominees for the Standards Board by June 14, 1991.

6.8 FCC Design Practice - This item was considered under paragraph 4.1.

7.0 Next Meeting - The next meeting of this committee is Saturday, August 17, 1991 from 8:00 AM to 10:00 AM at the Hyatt Cherry Hill.

8.0 Adjournment - The meeting adjourned at 9:59

Respectfully Submitted,

H. Stephen Berger  
Secretary,  
EMC Society Standards Committee

ADDITIONAL ATTACHMENTS:

ATTACHMENT R - Ballot and Attendance Summary  
ATTACHMENT S - Address List

ACTION ITEMS

ARISING AT THE

MAY 19, 1990 EMCS STANDARDS COMMITTEE MEETING

MIN SEC	RESPONSIBLE PERSON	ACTION ITEM	COMPLETION DATE /COMMENTS
6.3	Carstensen	Respond on TC-1's interest in the EMC drafting symbols project.	

AUGUST 20, 1990 EMCS STANDARDS COMMITTEE MEETING

1.2	Chair/Sec	Develop Stds. involvement package.	End of 1991
3.4	Chair.	Write a description of the correct working relationship between the TC's, W/G's and Std. Com.	End of 1991
3.4	W/G Chairmen	Consider preparing a Newsletter article on W/G project and how others can get involved.	Due Sept. 1991

NOVEMBER 9, 1990 EMCS STANDARDS COMMITTEE MEETING

3.2	Chair	Write Standards Office inquiring about current process to gain feedback on standards.	Open
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ARISING AT THE

FEBRUARY 8, 1991 EMCS STANDARDS COMMITTEE MEETING

MIN SEC	RESPONSIBLE PERSON	ACTION ITEM	COMPLETION DATE /COMMENTS
3.1	Chair of W/G	A new PAR is needed for further work on Standard 299.	August 1991

ARISING AT THE  
MAY 17, 1991 EMCS STANDARDS COMMITTEE MEETING

MIN SEC	RESPONSIBLE PERSON	ACTION ITEM	COMPLETION DATE /COMMENTS
1.1	Sec.	Contact R. Fabina regarding nomination to EMCS Std. Com.	Comp. 5/28/91
1.1	Knowles	Write criterion for EMCS Std. Com. membership.	August 1991
3.0	W/G Chairmen	Submit report for minutes.	Open
3.2	Chair/Sec	Find new W/G chair for 475.	Open
3.3	Parker	Secure D. Awerkamp's response to P509 issues.	6/11/91
3.4	Sec.	Send H. Denny attachments regarding P509.	5/21/91
3.7	Knowles	Submit new PAR for 299.	August 1991
5.1	Sec.	Update B/A sum. for last 2 yrs.	Comp. 6/12/91
6.2	Sec.	Review & correct Qrtrly Rep.	5/28/91
6.6	Cory	Arrange for Std. Award winners to be at Symp.	July 1, 1991