



**Standards Advisory and  
Coordination Committee  
(SACCOM)**



June 4, 2000

**Compilation of SACCom Representative Reports**

<p><b>ANSI-ASC C63</b></p> <p>Title: US EMC Standards Committee</p> <p>Representative: Edwin L. Bronaugh</p>	<p><u>Current Activities:</u> Development and coordination of USA EMC Standards and related activities</p> <p><u>New Work Item:</u> Revisions of C63 standards. Several C63 standards are approaching the time when they must be reaffirmed, revised, or withdrawn. One of these is C63.13 on powerline filters for devices which must meet conducted emission requirements. Circulate C63.19 for C63 approval. C63.19 is the EMC standard governing hearing aids and wireless devices (cell phones). This standard establishes classes of compatibility between hearing aids and wireless devices.</p> <p><u>Standards/Revisions recently voted on:</u> Adoption of several CISPR standards as US C63 standards. There are some 49 candidate documents available for adoption as US standards. The committee will adopt a policy on this matter to phase out certain C63 documents and adopt international standards. The specific documents have yet to be selected.</p>
<p><b>CISPR B</b></p> <p>Title: Interference from I.S.M.</p> <p>Representative: Daniel D. Hoolihan</p>	<p><u>Current Activities:</u> CISPR/B/231/Committee Draft for Vote (CDV): In this proposal, the following documents are combined: CISPR/B/211/CD and 221/CC on didactic equipment. CISPR/B/214/CDV and 225/RVC on classification and alternative test sites, CISPR/B/223/CD on arc welding. Due to severe omissions in 214/CDV as listed in 225/RVC and as discussed in San Diego in June of 1999, it was decided to distribute a new CDV, combining the mentioned subjects. CISPR/B/234/Committee Draft (CD): Proposed revision of measuring methods of fluctuating emissions below 1 GHz. This document was produced based on the discussions of WG1 in San Diego in June of 1999, which favored a Japanese National Committee proposal. The proposed amendment is based on measurement reports on fluctuating emissions from microwave ovens.</p> <p><u>New Work Item:</u> CIS/B/232/New Work Item Proposal (NP): Emission limits for all industrial electroheating equipment; preferably an extension of the scope of CISPR 11. This NP proposes to prepare limits for all types of industrial electroheating-equipment that are not covered by the present scope of CISPR 11. Examples of the equipment to be added to CISPR 11 include resistance heating equipment with built-in semiconductor phase-controlled power regulators, industrial low-frequency induction heating equipment, arc furnaces, plasma heaters, electron-beam heaters and glow-discharge heaters.</p> <p><u>Scheduled Future Projects:</u> Revisions to CISPR 11 are being considered. See CDs above.</p>

<p><b>CISPR D</b></p> <p>Title: Ground      Transportation EMC</p> <p>Representative:     Kimball Williams</p>	<p><u>Current Activities:</u></p> <p>EN 61000-3-2 (power line harmonics): Effective date is Jan 1, 2001 Review CDV (Committee Draft for Voting) for CISPR 12 and the CD for CISPR 25.</p> <p>A review of the CISPR/D Scope is being developed by member entities.</p> <p><u>New Work Item Proposals:</u></p> <p>a) CISPR/D/WG2/(Andersen-Nielsen) May 1999 paper submitted to coordinate with CISPR/A. Statistical evaluation for NB RE.</p> <p><u>Standards/Revisions Recently Voted on</u></p> <p>a) CISPR 12 &amp; CISPR 25</p> <p><u>Recently Published Standards:</u></p> <p>a) CISPR 21 (Most recent revision)</p> <p><u>Scheduled Future Projects</u></p> <p>a) <b>IEC TC 69 EV Charging</b> Documents: The focus of this work is the testing of electrical vehicle (EV) charging systems. Current thinking within the USTAG is that a vehicle in charging mode becomes an "appliance" similar to a stove or toaster. Therefore, this subject should not be a subject for CISPR/D. There seem to be several possibilities for carrying this work forward under CISPR, but no clear directions are emerging as yet.</p>
<p><b>SAE EMI &amp; EMR TCs</b></p> <p>Title: Ground      Transportation EMC</p> <p>Representative:     Kimball Williams</p>	<p><u>Current Activities:</u></p> <p>a) Update Documents relevant to SAE J551 &amp; J1113.</p> <p>b) Re-Activation of <b>IC EMC Chip Task Force</b> to address new measurement techniques (J. Muccioli - Chair). Fellow of IEEE EMC-S Jim Muccioli (X2Y Attenuators) reported on the meeting that was held on May 16, 2000 which revitalized the work of the Task Force. Several major changes and additions to methods are in work. A meeting report will be forth coming from the Secretary, Scott Lytle (Eaton). (A side discussion on company support for standards activities began an effort that Jim will carry forward in the form of an e-mail document for comment outlining the rational for standards support.) The CISPR/D USTAG Chairman Poul Anderson (Daimler-Chrysler) requested a summary of activity that can be presented at the CISPR meeting in June.</p> <p>c) <b>Power Spectral Density</b> (PSD) methods of measuring receiver responses to boad band interference. Arnie Neislen (Visteon) provided reference copies of the parallel CISPR document: CISPR/D/WG2/(Andersen-Nielsen) May 1999 to the SAE formatted version has been provided to SAE for balloting as an Information Report.</p> <p><u>New Work Item Proposals:</u></p> <p>a) <b>Research 8-12 GHz RADAR Effects:</b> The focus of this document is new high power RADAR in the 8 to 12 GHz range which might have the potential for interference with vehicle electrical systems. The primary concern was for the possibility of unintentional deployment of automotive air bags. The committee discussed possible responses and decided send a formal invitation to Mr. Sages (who raised the initial question) to attend the next EMI committee meeting in Washington DC to discuss</p>

	<p>this issue</p> <p><u>Standards/Revisions Recently Voted on</u></p> <p>a) J551-1, -13, -15 Approved for publication.</p> <p>b) J1113-1 -3, -13, -24, -26 Approved for publication.</p> <p><u>Recently Published Standards:</u></p> <p>a) Docume above to be published within the near future.</p> <p>b) No major te ntschnical changes at this time.</p> <p><u>Scheduled Future Projects</u></p> <p>a) <b>Request IC EMC TF Support on Data Bus Emissions:</b> Jim Muccioli indicated familiarity with the request and had replied to the inquiry with a suggestion that the requesting group look up the relevant SAE documents and then get back in touch with the IC EMC Task Force.</p> <p><u>Activities Requiring Technical Support of the EMC-S:</u></p> <p>a) <b>LFMTF (Low Frequency Magnetics Task Force):</b> From R. Kautz (Ford): IEEE SCC-28 has a Project Authorization Request (P1555) for "Standard for Maximum Levels of Human Exposure to Electromagnetic Fields, 0 to 3 kHz". Mr. Kautz will probably attend the SCC-28 SC3 meeting in Munich on June 10. Meanwhile, he is summarizing differences between existing ACGIH, IEEE, ICNIRP, CENELEC, and NRPB documents, and the others are reviewing the standards and available instrumentation.</p> <p><u>Additional Comments:</u></p> <p>a) The AEMCLRP (<b>Automotive EMC Laboratory Recognition Programz</b>) has trained assessors in May. Members are referred to the ACIL web site at: <a href="http://www.acil.org">www.acil.org</a> where documents will be posted when ready.</p>
<p><b>ECMA TC-20</b></p> <p>Title: Information Technology Standardization, mainly in the European Common Market countries (EU)</p> <p>Representative: H. R. (Bob) Hofmann</p>	<p><u>Current Activities:</u></p> <p>EN 61000-3-2 (power line harmonics): Effective date is Jan 1, 2001</p> <ul style="list-style-type: none"> <li>• A new amendment to EN 61000-3-2 has been proposed in CENELEC, using the Unique Acceptance Procedure (UAB) PR A14. The PR A14 class D definition includes only TV sets, computers, and monitors with power between 75 and 600 watts. Also, there is no automatic reduction in 4 years from 75 watts to 50 watts.</li> <li>• The anticipated IEC CDV on an amendment to IEC61000-3-2, will not now be published until mid 2001. This delay reflects the industry position that the intended revision must be done properly with due care and consideration.</li> <li>• A study is being started and funded by a US consortium to measure residential power line harmonics in Europe over a two-year period to see if there are really power line harmonics, and what trends can be observed.</li> </ul> <p>Amendment 169 Committee Draft (CD) to CISPR-22, which calls for a mandatory 3 meter test distance for EUT's of less than 1.5 x 1.5 x 1.5 meters. The concern is that 3m measurements are hard to reproduce because of cabling connected to the EUT. It was explained that people wanted to be able to test small products at 3 meters and that the fixed 3 meter measurement distance was decided because of</p>

the difficulties of correlating 3 and 10 meter measurements that would otherwise have been permitted. There was no consensus on the likelihood of the amendment passing.

Separation between EMC and safety standards covered in IEC 61000-1-2:

- The IEC document will be issued as a technical specification, and can be upgraded to a full standard at some time in the future, after following all regular IEC procedures.

VCCI and VLAC:

- VCCI and VLAC will now accept NSA data for OATS using broadband antennas. In addition, they are proposing a novel concept. They will allow the use of the preferred measuring antennas, tuned dipoles, at frequencies where the biconicals may give site attenuation that falls outside the +/- 4dB site attenuation requirements. This means that if there are only a few points in the range from 30 to 1000 MHz that the site attenuation is outside the limits, tuned dipoles can be used for measurements at those frequencies with the possibility that if the tuned dipoles give acceptable reading, those points may be so noted and the tuned dipole data used at those frequencies
- They are adopting CISPR-22 3rd edition, which does include emissions on telecom ports.

C63.4 vs. CISPR 22

- It was suggested that the next issue of C63.4 (after the 2000 issue) be basically CISPR-22 with only differences from the CISPR document noted in C63.4. This proposal met with general agreement.

Cellphone Studies

- There is a list of the most recent studies on cell phones available from CENELEC. About 6000 different studies are listed/summarized. There is a new IEC 106 committee, which will work on limits and especially measuring procedures for non-ionizing radiation at cell phone frequencies.
- Japan is using a variation of IEC 61000-4-3 for studying cell phones and expects to make the information public in a few months and to use the results to make suggestions for changes in the document.
- They are concerned with the near-field vs far-field measurements, and the problems of making accurate measurements when testing cell phones, which have antennas that are relatively long compared to the wavelength and the distance at which the field information is desired. They are also concerned about near-field interactions between cell phones and PC's when the cell phones are used to link the PCs to the internet.

How to test ensembles of individual units?

- Retesting of ESD phenomena both at a unit/shelf and at the frame level subjected components to double stress, and that a failure at the frame level might be due to stress-induced weakness that occurred as a result of previous testing at the shelf/unit level. If that happened, a retest of virgin product at the frame level should be done to see if the trouble reoccurred.

## IEC TC-66/SC66A

Title:

### Current Activities:

Maintain IEC61326 standard and development of annex standards.

Annex D draft pertains to Test configurations, operational conditions and

<p>EMC of Measurement, Control, and Laboratory Equipment</p> <p>Representative: Henry Benitez</p>	<p>performance criteria for general purpose test and measurement equipment</p> <p><u>Revisions recently voted on:</u> IEC61326 Annex D received CDV voting approval and will now be sent out for final FDIS voting</p> <p><u>Recently published Standards:</u> EN61326:1997 (IEC61326) succeeds EN61326-1 (IEC61326-1)</p> <p><u>Scheduled Future Projects:</u> Address proposal for annex on transducer devices, safety devices and battery powered portable test devices</p>
<p><b>ASTM D09.12.14</b></p> <p>Title: Electrical and Electronic Insulating Materials – EMI testing of EMI Gaskets</p> <p>Representative: None at this time (Report provided by Joe Butler)</p>	<p><u>Current Activities:</u> Three standards were developed, all of which detailed methods of shielding performance evaluations of EMI gaskets. Although drafts of these standards still exist, but not much has been done the past two years. It is not clear whether or not these standards will ever be offered for ballot. (topic covered also by SAE AE-4 Aerospace EMI committee which is also working in the area of EMI Gasket shielding effectiveness standards) SAE may take over these ASTM efforts.</p>