

BUREAU OF INDIAN STANDARDS

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MINUTES

ELEVENTH MEETING OF ELECTROMAGNETIC COMPATIBILITY SECTIONAL COMMITTEE, LITD 09

दिनांक- दिन- समय/ DATE & TIME	स्थान VENUE
दिनांक DATE : 28th मार्च /March 2022	Meeting Link (WEBEX): https://bisindia.webex.com/bisindia/j.php?MTID=m5247ea5907c7295b5fa488e51c128ab5
दिन DAY : सोमवार / Monday	Meeting number : 2511 836 9106
समय TIME : 1100 h (11:00 AM)	Password : Ltd9

Members Present :

- 1. Chairman** Dr. Subbarao B
- 2.Member Secretary** Shri Bipin Jambholkar
3. Shri J B Singh Airport Authority Of India (AAI)
4. Shri S K Srivastava All India Radio (AIR)
5. Shri Abhijit Mulay Automotive Research Association of India (ARAI)
5. Shri Nitin Jain BNN Speag, Test and Calibration Laboratory Indian Pvt ltd
6. Mr. Mazhar Umer Broadcast Engineering Consultants India Ltd (BECIL)
7. Shri Anil Mehta Consumer Electronics and Appliance Mfrs. Ass. (CEAMA)
8. Shri Sanjay Kumar Sharma Dte. General of Aeronautical Quality Assurance (DGAQA)
9. Shri DP Singh Directorate General Doordarshan, Prasar Bharati (DD)
10. Shri Rajesh Meena Directorate General Doordarshan, Prasar Bharati (DD)
11. Dr. Ashish Saurikhia Electronics Component Industries Association (ELCINA)
12. Dr. S.K.Dubey National Physical Laboratory (NPL)
13. Shri Saurabh Nag Samsung India Electronics Private Limited
14. Shri Ashish Tayal Telecom Engineering Centre
15. Mr. Abdul Rahman TUV Rheinland India Pvt. Ltd.

Invitee

16. Shri Sumit Chopada Emerson Innovation Centre
17. Shri Ajay Patidar Emerson Innovation Centre

Regret

18. Shri Shri G.Subba Rao Bharat Electronics Ltd. (BEL)

ITEM 0 WELCOME

0.1 Member Secretary welcomed all the members present in eleventh meeting of LITD 09 on behalf of BIS. He hoped all members and their family are healthy and doing well.

He informed about that during last couple of years, Government of India has made large number of Indian Standards mandatory through various Quality Control Orders (QCOs). Presently more than 380 Indian Standards are under mandatory certification scheme either under ISI Mark or CRS Scheme. More Standards may also come under different schemes in future.

He also informed the members that all Standardization work is being carried out through BIS portal only. He requested all members to login themselves if not already done so. In case of any difficulty, they may contact member secretary for resolution.

He also informed about the instructions received from Hon'ble Minister for Consumer Affairs to BIS that as far as possible Committee should meet every quarterly ensuring Indian interest in every field and also non-participating members may be withdrawn from the Committee.

He thanked the Chairman for his guidance and initiation in Committee progress.

0.2 The Chairman welcomed the members to eleventh meeting of LITD. He informed about his long association with EMC Sectional Committee of BIS. He said that through Webex (video conferencing), members can easily participate and contribute in committee work. He requests members to actively study the IEC documents and give India view point in International Arena.

ITEM 1 FORMAL CONFIRMATION OF THE MINUTES OF LAST MEETING

1.1 The minutes of the last meeting of Electromagnetic Compatibility Sectional Committee, LITD 09 were circulated vide BISDG letter No. 09/A-2.10 dated 16th Nov 2021. The minutes of the last meeting were formally confirmed by the Committee.

ITEM 2 COMPOSITION OF LITD 09

2.1 The Committee reviewed the composition of the Committee.

2.2 It was informed by member secretary that Co-option request was sent to ERDA. Till date no response was received.

2.3 Central Electricity Authority (CEA) was recommended for withdrawal to LITDC as they have attended the last three or more meetings.

2.4 It was decided to write to following

- i) Ministry of Electronics & Information Technology (MeitY)
- ii) Wireless Planning and Coordination Wing
- iii) Electronics Corporation of India Ltd. (ECIL)

The above mentioned Organizations are important Stakeholders. It was decided that BIS will write a letter (physical) to all giving them a warning that in case of no response their membership would be withdrawn without any further Communication.

2.5 M/s Samsung informed that they will provide the contact details of COAI.

2.6 BIS has received the request from the following request for Co-option in personal capacity in the Committee. After deliberating on their request for Co-option, it was decided that they would be included in the mailing list of the committee for wide circulation/any other documents.

- (a) Nidec Control Techniques
- (b) Dell technologies ltd.

It was also decided, if any organization contribute in the Committee work, their co-option request may be considered in future meeting of LITD 09.

2.7 LITD 09 being one of the important Committees of LITD and is continuously receiving large number of Co-option request from large number of industries. As per BIS procedure, industry representation including association may be restricted to 1/3 of Committee composition. Also it was recommended to limit the Committee composition to 20 to 25 members. For example HP, DELL, and host of other companies who are requesting for co-option are pioneers in their field. The members of the view, more representation must be given to Associations and members were requested to participate on behalf of associations instead of Individual companies so that Committee may take the broader issues instead of individual companies.

ITEM 3 DRAFT INDIAN STANDARDS FOR FINALIZATION

3.1 The Committee examined the following document and decided as given below:

Sl No.	Document No. IS Number Equivalent Standard	Ref. No and date	Title & ICS No.	Remarks
1	LITD 09 (18772) IS 6873 (Part 2/Sec 1) CISPR 14-1: 2020	LITD 09/ T 25 th Jan- 22	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 2 Electromagnetic Compatibility (EMC) —Requirements for Household Appliances, Electric Tools and Similar Apparatus Section 1 Emission [Forth Revision of IS 6873 (Part 2/Sec 1)] ICS : 33.100.10	Approved for printing as dual number Standard
NOTE: Comments received from Schneider Electric given at Annex B (Point No. 1 to 5) of Agenda was considered were considered in detailed and decided that their comments may not be accepted .				
2	LITD 09 (18774) IS 6873 (Part 2/Sec 2) CISPR 14-2: 2020	LITD 09/ T 25 th Jan- 22	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 2 Electromagnetic Compatibility (EMC) — Requirements for Household Appliances, Electric Tools and Similar Apparatus Section 2 Immunity – Product Family Standard [Fourth Revision of IS 6873 (Part 2/Sec 2)] ICS : 33.100.20	Approved for printing as dual number Standard
NOTE: Comments received from Schneider Electric given at Annex B (Point No. 6,7,8 and 10) of Agenda was considered were considered in detailed and decided that their comments may not be accepted. Committee was informed that Indian Standard name will be similar to CISPR 14-2: 2020 and any typo error will be taken care at printing stages.				
3	LITD 09 (18775) IS 10052 (Part 1/Sec 4) CISPR 16-1-4: 2020	LITD 09/ T Dt 25 th Jan- 22	Radio Disturbance and Immunity Measuring Apparatus and Methods — Specification Part 1 Radio Disturbance and Immunity Measuring Apparatus Section 4 Antennas and test sites for radiated disturbance measurements [First Revision of IS 10052 (Part 1/Sec 4)] ICS : 33.100.10; 33.100.20	Approved for printing as dual number Standard
NOTE: Comments received from Schneider Electric given at Annex B (Point No. 11) of Agenda was considered were considered in detailed and decided that their comments may not be accepted.				

4.	LITD 09 (18776) IS 14700 (Part 4/Sec 3) IEC 61000-4-3 : 2020	LITD 09/ T Dt 25 th Jan- 22	Electromagnetic compatibility (EMC) – Part 4 Testing and Measurement Techniques Section 3 Radiated, radio- frequency electromagnetic field immunity test [Second Revision of IS 14700 (Part 4/Sec 3)] ICS: 33.100.20	Approved for printing as dual number Standard
NOTE: Comments received from Schneider Electric given at Annex B (Point No. 12) of Agenda was considered were considered in detailed and decided that their comments may not be accepted.				
5.	LITD 09 (18777) IS 14700 (Part 6/Sec 3) IEC 61000-6-3 : 2020	LITD 09/ T Dt 25 th Jan- 22	Electromagnetic compatibility (EMC) – Part 6 Generic standards Section 3 Emission standard for equipment in residential environments [Second Revision of IS 14700 (Part 6/Sec 3)] ICS: 33.100.10	Approved for printing as dual number Standard
NOTE: Comments received from Schneider Electric given at Annex B (Point No. 13 to 15) of Agenda was considered were considered in detailed and decided that their comments may not be accepted.				

3.2 In the last meeting of LITD 09, Committee finalized the **IS/IEC/IEEE 62209-1528: 2020** for printing as Indian Standard.

3.2.1 In the meeting, the committee noted that IEC/IEEE 62209-1528: 2020 cancels and replaces IEC 62209-1:2016, IEC 62209-2:2010, IEC 62209-2:2010/AMD1:2019 However in India, both IEC 62209-1 & 2 are referred in Telecommunication Engineering Centre (TEC), Min. of Communications notifications.

3.2.2 Shri Ashish Tayal informed that presently TEC is extensively refereeing IEC 62209-1 and IEC 62209-2 in various Essential Requirements (ERs). He said IEC/IEEE-1528: 2020 is combination of previous versions i.e., IEC 62209-1 & 2 with some additional requirements. TEC will be studying the IEC/IEEE-1528: 2020 in detailed for its implementation in India. He requested BIS to publish IS/IEC/IEEE 62209-1528: 2020 and run it concurrently with IS/IEC 62209: 2016 and IS/IEC 62209-2: 2019.

3.3.3 On a query from member that whether they can test their product as per IS/IEC/IEEE-1528 : 2020. It was informally informed that new standards cover the requirement of both previous standards with some additional requirements. Hence, it will meet the regulatory requirements. However, official clarification may be issued later.

3.3 Member Secretary Suggested in case, any Indian Standard(s) based on IEC/CISPR Standard needs to be modified as per Indian Condition(s), a panel may be created to have detailed Clause by Clause discussion on that Standard(s).

ITEM 4 PRESENT POSITION OF WORK (POW) OF LITD 09

4.1 The Committee reviewed the present position of work (POW) of LITD 09 is given in Annex 3 (Pg 17-22) of Agenda.

ITEM 5 REVIEW OF PUBLISHED INDIAN STANDARDS

5.1 The Committee decided to reaffirm 4 Indian Standards which were due for reaffirmation from their due date, which are as follows:

Sl. No	IS.No. & Title	Date of Reaffirmation
1	IS 6873 (Part 1) : 2010/ CISPR 12 : 2007+ <u>Amd1: 2009</u> Limits and methods of measurements of radio disturbance characteristics: Part 1 vehicles, boats and internal combustion engines (Third Revision)	Jan 2022
2	IS 1885 (Part 85) : 2003/ IEC 60050 -161: 1990 Electro technical vocabulary: Part 85 electromagnetic compatibility	Jan 2022
3	IS 12743 : 1989 /IEC Pub 816 (1984) Guide on methods of measurement of short duration transients on low voltage power and signal lines	Jan 2022
4	IS 14700 (Part 1/Sec 1) : 2000/ IEC 61000-1-1 (1992) Electromagnetic compatibility (EMC) Part 1 general: Sec 1 application and interpretation of fundamental definitions and terms	Jan 2022

5.2 The Committee recommended to withdraw following Standard to LITDC:

SL. No.	IS No.	Title	Base ISO/IEC	Latest Position of International Standard	Reason for withdrawal of Indian Standards
1.	IS 12743 : 1989	Guide on methods of measurement of short duration transients on low voltage power and signal lines	IEC Pub 816 (1984)	No Change	Committee was of the opinion Standard is guide and not in used by Industry/ Laboratories

5.3 Draft Indian Standards Approved for Wide Circulation

5.2 The Committee considered the list of documents given in Agenda and decided to issue following documents based on latest standards or Final Draft Documents of IEC/CISPR directly in Wide Circulation for the period of two month.

Sl. No	IEC No. / IEC Comm.No. /Title / Revision Status or New
1	IEC 60050-161 (Amd 1: 1997, Amd 2: 1998, Amd 3: 2014, Amd 4: 2014, Amd 5: 2015, Amd 6: 2016, Amd 7: 2017, Amd 8: 2018) International Electrotechnical Vocabulary (IEV) - Part 161: Electromagnetic compatibility (First Revision of IS 1885 (Part 85))

5.4 Committee noted that following Standards are due for review from April 2022 to March 2023

1	IS 6873(Part 4):2019 / CISPR 11(2016)	Limits and methods of measurements of Radio disturbance characteristics Part 4 Industrial, scientific and medical (ISM) radio frequency equipment [first revision]	Dec 2019
2	IS 6873(Part 5):2019 / CISPR 15:2021	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 5 Electrical Lighting and Similar Equipment (Third Revision)	Dec 2019
3	IS 14700(Part 4/Sec 1):2019 / IEC 61000-4-1(2016)	Electromagnetic compatibility (EMC) Part 4 Testing and measurement techniques Section 1: Overview of the IEC 61000-4 series (Second Revision)	May 2019
4	IS 14700(Part 4/Sec 5):2019 / IEC 61000-4-5(2017)	Electromagnetic compatibility (EMC) Part 4 Testing and measurement techniques - Sec 5 Electrical fast transient/burst immunity test (First Revision)	May 2019
5	IS 14700(Part 4/Sec 6):2016 / IEC 61000-4-6(2013)	Electromagnetic Compatibility (EMC) - Part 4 Testing and measurement techniques Sec 6 Immunity to conducted disturbances, induced by radio-frequency fields	Apr 2019
6	IS 14700(Part 4/Sec 9):2019 / IEC 61000-4-9(2016)	Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 9: Impulse magnetic field immunity test (Second Revision)	May 2019
7	IS 14700(Part 4/Sec 12):2019 / IEC 61000-4-12(2017)	Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 12: Ring wave immunity test (Second Revision)	May 2019
8	IS 14700(Part 4/Sec 13):2016 / IEC 61000-4-13(2009)	Testing and measurement techniques - Harmonics and interharmonics including mains signaling at a.c. power port, low frequency immunity tests	Apr 2019
9	IS 14700(Part 4/Sec 16):2019 / IEC 61000-4-16(2015)	Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 16: Test for immunity to be conducted, Common mode disturbances in the frequency range 0Hz to 150 kHz (Second Revision)	May 2019
10	IS 14700(Part 6/Sec 1):2019 / IEC 61000-6-1(2016)	Electromagnetic compatibility (EMC)-Part 6 Generic standards Sec 1 Immunity standard for residential. Commercial and light-industrial environments(first Revision)	Jul 2019
11	IS 14700(Part 6/Sec 2):2019 / IEC 61000-6-2(2016)	Electromagnetic compatibility (EMC)-Part 6 Generic standards Sec 2 Immunity for industrial environments (first Revision)	Jul 2019
12	IS 15040:2019 / CISPR 25 (2016)	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices - Limits and methods of measurement (First revision)	Dec 2019

13 IS CISPR(Part 32):2015
/ CISPR 32:2015

Electromagnetic compatibility of multimedia
Equipment Emission Requirements

May 2019

5.2.1 The Committee member have volunteered to review few of the above mentioned Standards as per BIS working Sheet. Their list will finalize in consultation with the Chairman.

ITEM 6 INTERNATIONAL STANDARDIZATION ACTIVITIES

6.1 The Committee noted the list in which India is Participating, Observer in IEC/CISPR Committees along with the list of Liaisons with International Committees in which LITD 09 acts as National Mirror Committee.

6.2 Committee felt that India being P-Member of IEC/TC 77, 77A, 77B, 106 and CIS-B, members should try to participate at least in the virtual meetings in the International Committee.

6.3 The Committee noted the list of International Standards given in the Annex 3 of Agenda. It was decided to circulated the list of Standards along with the minutes so that members can go through the list.

6.4 The Committee noted the list of working groups under IEC/TC 77, 106 and all CISPR Sub-Committees given in the Agenda

6.4.1 The Committee added the list of experts nominated in various working groups of IEC/TC 77, IEC/SC 77A , IEC/SC 77B, IEC/TC 106 and IEC /CIS/B.

The List of Experts in Working group are as follows:

Sr No	Title	Subcommittee/Working Groups	Expert
1	TC 77 Electromagnetic compatibility	WG 13 Generic EMC Standards - Maintenance of IEC 61000-2-5	Dr. B Subba Rao Shri Bipin Jambholkar

Sr	Title	Subcommittee/Working Groups	Expert
2	IEC/SC 77A EMC - Low frequency phenomena	WG 1 Harmonics and other low-frequency disturbances	Dr. B Subba Rao Shri Sulekh Chand Shri Ashutosh Pandey, Ms. Neha Upadhyay,
		WG 2 Voltage fluctuations and other low-frequency disturbances	Dr. B Subba Rao Shri Ashutosh Pandey, Ms. Neha Upadhyay,
		WG 6 Low frequency immunity tests	Dr. B Subba Rao Ms. Neha Upadhyay, Shri Manish Kumar

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			Singh,
		WG 8 Description of the electromagnetic environment associated with the disturbances present on electricity supply networks	1. Dr. B Subba Rao
		WG 9 Power Quality measurement methods	1. Dr. B Subba Rao

Sr	Title	Subcommittee/Working Groups	Expert
3	SC 77B High frequency phenomena	WG 10 Radiated and conducted continuous phenomena immunity tests	Dr. B Subba Rao Ms. Neha Upadhyay, Shri Manish Kumar Singh,
		JTF REV Joint Task Force CISPR/A/SC77B on Reverberation chambers linked to CIS/A	1. Dr. B Subba Rao
		JTF TEM Joint Task Force CISPR/A/SC77B on TEM Waveguides linked to CIS/A	1. Dr. B Subba Rao
		JTF FAR Joint Task Force between CISPR/A and SC77B on Fully anechoic rooms (FARs) Managed by CIS/A	1. Shri G.Subba Rao

Sr	Title	Subcommittee/Working Groups	Organization
4	TC 106 Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure	WG 8 Addressing methods for assessment of contact current related to human exposures to electric, magnetic and electromagnetic fields	Shri Ashutosh Pandey, Shri Harshit Modi, Dr.S.K.Dubey Bipin Jambholkar
		WG 9 Addressing methods for assessment of Wireless Power Transfer (WPT) related to human exposures to electric, magnetic and electromagnetic fields	Ms. Neha Upadhyay, Shri Harshit Modi, Dr.S.K.Dubey Shri Nitin Jain

Sr	Title	Subcommittee/Working Groups	Organization
5	CIS/B Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction	WG 1 Industrial, scientific and medical (I.S.M.) radio frequency apparatus	Shri Ashutosh Pandey, Shri Manish Kumar Singh,
		WG 2 Interference from overhead power lines, high-voltage equipment and electric traction	

6.5.1 The Committee in its last meeting has decided that Organizations mentioned below will try to contribute in following Committees work/documents in which India is Observer member, so that Committee may consider upgrading Indian Status from O-Member to P-Member.

Sr	Title	Subcommittee/Working Groups	Organization
1	CIS/A Radio-interference measurements and statistical methods	WG 1 EMC instrumentation specifications	DGAQA
		WG 2 EMC measurement techniques, statistical methods and uncertainty	DGAQA

Sr	Title	Subcommittee/Working Groups	Organization
2	CIS/F Interference relating to household appliances tools, lighting equipment and similar apparatus	WG 1 Household appliances incorporating electric motors and contact devices	ERTL (N)
		WG 2 Lighting equipment	-

Sr	Title	Subcommittee/Working Groups	Organization
3	CIS/H Limits for the protection of radio services	WG 1 A survey of EMC product standards on emission	AAI
		JWG 5 Use of medium-sized EUT volumes at alternative test sites SAC and FAR Managed by CIS/A	AAI

Sr	Title	Subcommittee/Working Groups	Organization
4	CIS/I Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers	MT 7 Maintenance of CISPR 32	BECIL,DGAQA
		MT 8 Maintenance of CISPR 35	BECIL,DGAQA,TEC
		MT 9 Maintenance of CISPR 29	BECIL,DGAQA

6.5 All members were requested to regularly check www.iec.ch/votes for IEC/CISPR documents relevant to them so that they can write to BIS for draft documents or login into bis.gov.in for document depository of draft documents.

ITEM 7 WTO-TBT ENQUIRY POINT

7.1 The Committee noted the information given in Agenda.

7.2 BIS-IR&TISD Department serves as the WTO TBT Enquiry Point. The email of enquiry point are as follows:

a) ird@bis.gov.in ; b) tisd@bis.gov.in

ITEM 8 ELECTRONICS AND INFORMATION TECHNOLOGY GOODS (REQUIREMENTS FOR COMPULSORY REGISTRATION) ORDER, 2012

8.1 The Committee noted the information given in Agenda.

ITEM 9 INFORMATION ON E-SALE OF STANDARDS BY BIS

9.1 The Committee noted the information given in Agenda. It was also informed that indigenous Standards are available **free of cost in <http://www.standardsbis.in/Gemini/home/Home.action>**. In the website, information regarding identical/equivalent Standards along with scope is also available.

However, people will have to pay for Indian Standards, which has been adopted from other Standards bodies (like IEC/ISO etc.) but at much cheaper rate than its International editions.

ITEM 10. NATIONAL INSTITUTE OF TRAINING FOR STANDARDIZATION (NITS)

10.1 The Committee noted the information given in Agenda.

ITEM 11 Any Other Business

11.1 Member Secretary requested TEC to refer Indian Standard instead of IEC/CISPR directly to enable Indian Users to refer Indian Standards.

11.2 Shri Sumit Chopada from M/s Emerson Innovation Centre informed the Committee that he has registered for IEC/TC 77C meeting, but his name was not approved by BIS.

11.3 Member Secretary informed that he is not yet a member of the Committee and expert in IEC TC 77C, therefore his name was not approved by International Relation Department (IRD) of BIS.

BIS normally nominate those members, who are actively contributing in the Committee work.

The Members can see the list of documents for voting on IEC website (<https://www.iec.ch/votes>).

ITEM 12 DATE AND PLACE FOR THE NEXT MEETING

12.1 Date and place for the next meeting will be decided in consultation with the chairman preferably within next six months. The meeting ended with vote of thanks to Chairman Sir and all the members.