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BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
Low Voltage Switchgear and Controlgear Sectional Committee, ETD 07	31st	Thursday	27 June 2024	1100h	Virtual (BIS Webex)

CHAIRMAN: Shri B R Vasudevamurthy

MEMBER SECRETARY: Shri Ashok Kumar

Members present:

S.No	Organization	Name
1.	Central Power Research Institute	Shri B R Vasudevamurthy
2.	ABB India Limited	Shri Dev Chandra Kuril
3.	BCH Electric Limited	Shri Patro UAK Shri Vishank Aggarwal
4.	Bharat Heavy Electrical Limited	Shri Dinesh Pawar Smt Sangeetha M A
5.	Calcutta Electric Supply Corporation Limited	Shri Bratin Banerjee Shri Sujit Kumar Pathak
6.	Central Electricity Authority	Smt Aarti Singh
7.	Central Power Research Institute, Bengaluru	Smt Sumbul Munshi Shri Somala Arjuna Rao Shri Saumitra Pathak
8.	Central Power Research Institute, Bhopal	Shri N. Maheswara Rao Smt Girija G.
9.	Development Commissioner Micro-Small and Medium Enterprises	Shri Ashis Biswas
10.	Eaton India Innovation Center	Shri Tanmay Tamboli
11.	Elmex Controls Private Limited	Shri Robin Virani
12.	Engineers India Limited	Smt Shirali Aggarwal
13.	Haryana Vidyut Prasaran Nigam Limited	Shri Ajay Nehra
14.	Havells India Limited	Shri Rajeev Kumar
15.	HPL Electric and Power Limited	Shri Brajeshtomar
16.	In Personal Capacity	Shri Gajendra Babu
17.	Indian Electrical and Electronics Manufacturers Association	Shri Navdeep Singh
18.	Jasper Engineers Private Limited	Shri Rudra Satapathy
19.	Larsen and Toubro Limited	Shri Ritesh Kumar Patel
20.	Nuclear Power Corporation of India Limited	Smt P. Suguna Lakshmi
21.	Panasonic Life Solutions India Private Limited	Shri Vijay Wedhane
22.	Schaltbau India Private Limited	Shri Shahid
23.	Schneider Electric India Private Limited	Shri Anilesh K.



		Shri C.S. Kore
		Shri Saravanan Shanmugam
24.	Siemens Limited	Shri Vijay Wanwe
		Shri Rahul Srivastava
25.	Small Scale MCD Manufactures Welfare Association	Shri Pramod K Jain
26.	Tata Consulting Engineers Limited	Smt Sangita Vinay
		Shri P K Arun Kumar
27.	UL India Private Limited	Shri Madhusudan BK
28.	Bureau of Indian Standards (BIS)	Shri Ashok Kumar (<i>Member secretary</i>)

Item 0 GENERAL

0.1 WELCOME & OPENING REMARKS BY THE CHAIRMAN

Shri Ashok Kumar, Member Secretary of ETD 07, welcomed everyone and introduced Shri B. R. Vasudevamurthy as the new chairperson of the committee. Shri Vasudevamurthy thanked and welcomed all participants. He emphasized the committee's critical importance and urged members to engage in thorough but concise discussions on each agenda point to reach meaningful conclusions and resolve issues.

Shri Vasudevamurthy extended his gratitude to Shri Anupam Awasthi, the former chairperson of the ETD 07 committee, for his substantial contributions and effective leadership. He also commended the efforts of various working groups actively contributing to the standardization process and expressed hope for productive discussions on all agenda points.

0.2 The meeting started with a brief introduction of committee members.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The committee confirmed the minutes of the 30th meeting of Low Voltage Switchgear and Controlgear Sectional Committee, ETD 07, held on 20 Dec 2023 virtually.

Item 2 COMPOSITION OF LOW VOLTAGE SWITCHGEAR AND CONTROLGEAR SECTIONAL COMMITTEE, ETD 07

2.1 The committee noted the information given in the agenda.

2.3 Mr. Saumitra Pathak M/s CPRI has been appointed as the convener of WG 3.

2.4 Mr. Saravanan Shanmugam M/s Schneider Electric India Private Limited has been appointed as the convener of WG 4.

2.5 ABB India Limited to share the updated nomination for WG 4.

2.6 Mr. Vijay Wedhane M/s Panasonic Life Solutions India Private Limited and Mr. N. Maheswara Rao M/s CPRI have been included in WG 4.



2.7 The committee reviewed the co-option requests received from Mr. Suresh Deotalu M/s Legrand India and Mr. Shelesh Kumar Tiwari M/s C&S Electric. Legrand India was removed from the committee's composition due to their absence from two consecutive ETD 07 meetings. Mr. Shelesh Kumar Tiwari, previously associated with ABB India (already a member of the ETD 07 committee), joined C&S Electric and submitted a new co-option request. Mr. Goutam Som who was member and representing ERDA, is no more working with ERDA. Hence it is hereby decided to take out his name from the ETD 07 members list. If any representation is received from ERDA to include any other person in place of Mr. Goutam Som to become member, then committee will decide the same in the next meeting.

The committee acknowledged that both individuals actively participated in previous ETD 07 meetings and could be considered for co-option. However, the committee currently has adequate industry representation in accordance with the rules. As a result, both organizations will be placed on a wide circulation list, and draft standards will be shared with them for their comments.

The co-option requests will be reconsidered in future meetings based on their contributions to draft standards and the availability of vacancies for industry representation.

Item 3 ACTIONS ARISING OUT OF PREVIOUS MEETING

Sl. No	Item of Previous Meeting	Action reported in the last meeting	Action Reported in the agenda	Decision Taken
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Item 4 PRESENT POSITION OF WORK

4.1 The committee noted the present position of work under the scope of **ETD 07**.

4.2 The committee also examined the list of IEC standards against which no Indian Standards exist as had been identified by member secretary for consideration of the committee for harmonization. It was decided to allocate the task of initial review of these IEC standards to

- WG 3 (For review of standards under IEC TC 121 and SC 121A),
- WG 4 (For review of standards under IEC SC 121B) and
- WG 5 (For review of standards under IEC SC 23E) (refer annex 1 of agenda for WG composition).

These working groups were advised to carry out the assessment of the list of respective IEC committee standards given at Annex 3 of the agenda to:

- a) Assess the suitability of implementation of these IEC standards in India after identical adoption
- b) Testing infra/Feasibility of test
- c) Feedback for making infrastructure changes as per new requirements by manufacturers.

4.1 DRAFTS FINALIZED FOR PRINTING

Sl. No.	IS/IEC no.	Status	Action taken
1	Doc ETD 07 (23677) Revision of IS 12640 (Part 1): 2016		Committee noted the information.



	Residual current operated Circuit Breakers without integral overcurrent protection for household and similar uses RCCBs: Part 1 general rules	The documents are under advanced stage of printing.	
2	Doc ETD 07 (24761) Adoption of IEC 60947-7-1: 2009 Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors		
3	Doc ETD 07 (24762) Adoption of IEC 60947-7-2: 2009 Low-voltage switchgear and controlgear - Part 7-2: Ancillary equipment - Protective conductor terminal blocks for copper conductors		

4.2 DRAFTS FOR FINALIZATION

The committee noted the information given in the agenda.

4.3 DRAFTS FOR APPROVAL FOR WIDE CIRCULATION

SI No.	IS No.	Decision Taken in the last meeting	Action reported in the agenda	Decision Taken
1.	IEC 62955: 2018 Residual direct current detecting device (RDCDD) to be used for mode 3 charging of electric vehicles	The copy of IEC 62955: 2018 circulated among WG 5 members to examine the standard. The comments received from Ather Energy, Member Organisation ETD 51 (attached at Annex 4 of the agenda) also circulated among WG 5 members for their kind Consideration. WG-5 is requested to kindly review the comments received from Ather Energy and IEC 62955 once again and provide the final recommendation within 2 weeks from the date of the meeting, so that decision can be taken on the adoption of IEC 62955.	Email sent to WG-5 requesting a review of the comments received from Ather Energy. As no response has been received from WG-5, the widely circulated document has been dropped due to the timeline for standard formulation. A new document number will be assigned upon receipt of a response from WG-5 members regarding the comments.	WG-5 is requested to review the comments received from Ather Energy on IEC 62955 once again and provide the final recommendation within two months from the date of the meeting so that decision can be taken on the adoption of IEC 62955.

4.4 P-DRAFTS UNDER PREPARATION

SI. No	Draft IS No.	Eqv. IEC	Latest IEC	Decision taken in the last meeting	Action reported in the agenda	Decision Taken
1	IS 16463 (Part 12): 2017	IEC 61643-12 : 2008	IEC 61643-12:2020	-	Latest IEC standards	It was decided to circulate the latest IEC of these



2	IS 17120 : 2019	IEC 62752 : 2016	IEC 62752:2024		were circulated to committee members vide email dated 14 June 2024. No comments have been received from the members on the latest IEC standard.	standards as P-drafts for 30 days. In case no comments are received from the committee members during the P-draft stage, the latest IEC standards shall be put in wide circulation for 60 days for adaptation.
3	IS/IEC 60947-4-1 : 2012	IEC 60947-4-1 : 2012	IEC 60947-4-1:2023			
4	IS/IEC 60947-5-1 : 2016	IEC 60947-5-1 : 2016	IEC 60947-5-1:2024			
5	IS/IEC 61439-0 : 2014	IEC 61439-0 : 2014	IEC TR 61439-0:2022			
6	IS/IEC 61439-3 : 2012	IEC 61439-3 : 2012	IEC61439-3:2024			
7	IS/IEC 61439-4 : 2012	IEC 61439-4 : 2012	IEC 61439-4:2023			
8	IS/IEC 61439-5 : 2014	IEC 61439-5 : 2014	IEC 61439-5:2023			
9	Adoption of IEC 62423: 2009 Type F and type B residual current operated circuitbreakers with and without integral overcurrent protection for household and similar uses	-	-	WG-5 was requested to send the consolidated recommendations assessing the suitability of implementation of IEC 62423: 2009 for adoption within 1 month from the date of the meeting.	WG 5 conducted the meeting on 16th May 2024 and submitted Below recommendations: <ul style="list-style-type: none"> • <i>test facility at Labs to be looked in for the standard requirements.</i> • <i>Before Going for any regulations on the above standard after adaption, review of test facility at Labs is required as per standard requirements.</i> Mr Madhusudan BK informed that UL India Private	Members from CPRI and ERDA to kindly confirm the testing facility for IEC 62423: 2009 within 2 months from the date of the meeting.



					Limited has limited test facility for IEC 62423: 2009 requirements. Members from CPRI and ERDA to kindly confirm the testing facility for IEC 62423: 2009	
10	IS 13032: 1991 'A.c. miniature circuit - Breaker boards for voltages not exceeding 1000 V - Specification'	-	-	Mr. Parmod K Jain M/s Small Scale MCB Mfrs Welfare Association submitted following recommendations: 'Almost all of our members are referring it for MCB Distribution Boards. Moreover Govt procurement for MCB Distribution Boards is also done mainly referring to this Standard IS: 13032 is specifically made for MCB Distribution Board which is sold as an individual product whereas IS 61439 is mainly referred for tailor made items like Panels or Sub assemblies with or without Switchgears. Actually IS: 61439 have replaced/superseded IS: 8623 and not IS: 13032. Hence in our opinion	WG 6 to confirm whether all the requirements of IS 13032 are addressed under IS/IEC 61439-3.	WG 6 confirmed that all requirements of IS 13032 are addressed under IS/IEC 61439-3. The committee decided to withdraw IS 13032: 1991 after three months from the date of the meeting. This three-month switchover period is provided because IS 13032 is still referenced for MCB Distribution Boards procurement.



				<p>IS:13032 should continue as separate Standard for MCB Distribution Boards.</p> <p>After deliberate discussion, the Committee decided that IS 13032 will not be withdrawn as the Govt. procurement for MCB Distribution Boards is done mainly referring to this Standard. WG 6 is requested to kindly review and confirm whether all the requirements of IS 13032 are addressed under IS/IEC 61439-3.</p>		
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Item 5 Review of Published Standards for Revision/Reaffirmation

5.1 The committee noted the information given in the agenda.

5.2 The committee discussed the safety concerns related to the use of rewirable type fuses covered in IS 10027: 2018 'Composite units of air - Break switches and rewirable type fuses for voltages not exceeding 650 v a.c. - Specification (Second Revision)'. WG 4 is requested to kindly review the applicability and safety implications of IS 10027: 2018 and submit the report for consideration of the committee in the next meeting of ETD 07. IS 2086 meant for 'Rewirable type kit-kat fuse units' which comes under the purview of ETD 39 also need to be withdrawn first in order to withdraw IS 10027 standard.



5.2 Action Research Projects (ARP) for Pre-2000 standards

SL no.	IS no. & Title	Decision taken in the last meeting	Action Reported in the agenda	Decision Taken
1.	IS 8588 (Part 1): 1977 Specification for thermostatic bimetals: Part 1 General requirements and methods of tests	IEEMA to share the report to BIS on the following points: 1) Applicability of IS 8588 (Part 1): 1977 2) DIN standard referred by Industries for thermostatic bimetal in place of IS 8588 (Part 1): 1977 The committee discussed the proposal received from Metallurgical Engineering Department . The committee members informed that ETD 07 committee lacks the necessary metallurgical expertise to review and provide the inputs on the clauses related to metallurgy within IS 8588 (Part 1). The proposal received from MTD lacks sufficient data and a comparative analysis of the overlap between these standards. Therefore, it was decided to seek detailed report from MTD on superseding the IS 5478: 1969 by IS 8588 (Part 1) covering the comparison analysis of overlapping between these 2 standards.	Reply awaited from IEEMA on the Applicability of IS 8588 (Part 1): 1977 and DIN standard referred by industries for thermostatic bimetal in place of IS 8588 (Part 1): 1977. Detailed report from MTD awaited on superseding the IS 5478: 1969 by IS 8588 (Part 1) covering the comparison analysis of overlapping Between these 2 standards.	The committee decided to archive the IS 8588 (Part 1): 1977. IEEMA to share the report to BIS on the following points: 1) Applicability of IS 8588 (Part 1): 1977 2) DIN standard referred by industries for thermostatic bimetal in place of IS 8588 (Part 1): 1977. The decision on review/revision of IS 8588 (Part 1): 1977 will be taken upon receipt of inputs from IEEMA.

5.3 Mr. Anilesh Kaduthanum M/s Schneider Electric gave a presentation on the restructuring of the IEC 61009 and 61008 series. He updated the committee on the upcoming revisions to these series. The adoption of the remaining parts of the IEC 61009 and IEC 61008 series, as well as the harmonization of various parts of the IS 12640 series into single or dual numbering, will be reviewed and discussed in the next ETD 07 committee meeting.

Item 6 Proposal received from Ministries and stakeholders for adoption of IEC standard

SI No	IEC standard	Action Reported in the agenda	Decision Taken
1	IEC 61540:2023 Portable residual current devices (PRCDs) without integral overcurrent protection for household and similar use	Recommendations submitted by WG-5: 1. IEC 61540: 2023	Members from CPRI and ERDA and UL India Private Limited to kindly confirm the testing facility for IEC 61540: 2023.



		<ul style="list-style-type: none">• Test facility at Labs to be looked in for the standard requirements.• Before Going for any regulations on the above standard after adaption, review of test facility at Labs is required as per standard requirements. <p>2. IEC 61009-2-1:1991 and IEC 61009-2-2:1991 Standards are presently under Revisions, It is expected to have new revision's available by end of 2024. Members have concluded to wait till the new revisions are available for the adaptations. This topic need discussion during next ETD07 Committee meeting.</p>	IEC 61009-2-1:1991 and IEC 61009-2-2:1991 standards are currently under revision in the IEC, with new revisions expected to be published by the end of 2024. The decision on the adoption of IEC 61009-2-1 and IEC 61009-2-2 will be made once the revised standards are published.
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Item 7 INTERNATIONAL ACTIVITIES

7.1 The committee noted the information given in the agenda.

7.2 Mr. Tanmay Tamboli of M/s Eaton expressed interest in becoming a member of PT 60947-10 'Low voltage switchgear and controlgear – Part 10: semiconductor circuit-breakers'. He was requested to share his experience in the field of semiconductor circuit-breakers via email. His nomination for PT 60947-10 will be further discussed in the next meeting of the ETD 07 committee.

Item 8 FUTURE PLANS AND STRATEGIES

The committee discussed the **DC switchgear** subject mentioned in Standards National Action Plan (SNAP) 2022-27 for development of Indian Standard. The DC switchgear requirements for DC switchgear up to 1500V DC are already addressed in the existing revised versions of IS/IEC 60947-2 and the IS/IEC 61439 series of standards. Additionally, the requirements for circuit breakers for DC operation in household and similar installations are covered by IS/IEC 60898-3.

Mr. N. Maheswara Rao M/s CPRI will deliver a presentation on DC switchgear during the next meeting of the ETD 07 committee. This presentation will cover relevant standards, testing facilities for DC switchgear, and future laboratory plans to upgrade to DC switchgear specifications.

Item 9 DATE AND PLACE OF NEXT MEETING

It was decided to hold the next meeting of the sectional committee tentatively in Oct 2024 in virtual mode.

Item 10 ANY OTHER BUSINESS



There being no other business, the meeting ended with a vote of thanks to the Chair.