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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 | 30 th | Wednesday | 20 Dec 2023 | 1130h | Virtual (BIS Webex) |

CHAIRMAN: Shri Anupam Awasthi

MEMBER SECRETARY: Shri Ashok Kumar

Members present:

| S.No | Organization | Name | Email |
|------|--|------------------------|------------------------------|
| 1. | Central Power Research Institute | Mr. Anupam Awasthi | awas1961@gmail.com |
| 2. | ABB India Limited | Mr. Dev Chandra Kuril | devchandra.kuril@In.abb.com |
| 3. | Bharat Heavy Electrical Limited | Mr. Debasisa Rath | debasisa@bhel.in |
| 4. | Calcutta Electric Supply Corporation Limited | Mr. Bratin Banerjee | bratin.banerjee@rpsg.in |
| 5. | Central Power Research Institute | Mr. B R Vasudevamurthy | brvmurthy@cpri.in |
| | | Mr. N Maheswara Rao | mahesh@cpri.in |
| | | Mr. Swaraj Kumar Das | skdas@cpri.in |
| | | Ms. Girija G | girija@cpri.in |
| | | Ms. Sumbul Munshi | sumbul@cpri.in |
| 6. | Consumer Guidance Society of India | Mr. Goutam Bhatia | goutambhatia@rediffmail.com |
| 7. | Electrical Research and Development Association | Mr. Y.L. Pathan | yipathan@erda.org |
| 8. | Elmex Controls Private Limited | Mr. Robin Virani | rhv@elmex.net |
| 9. | Engineers India Limited | Ms. Shirali Aggarwal | shirali.aggarwal@eil.co.in |
| 10. | Hager Electro Private Limited | Mr. Shirish Zope | shirish.zope@hagergroup.com |
| 11. | Havells India Limited | Mr. Viral Parmar | parmar.viral@havells.com |
| | | Mr. Ranbir Singh | ranbir1.singh@havells.com |
| | | Mr. Manoj Kumar Gupta | manojkumar.gupta@havells.com |
| 12. | In Personal Capacity | Mr. Anil Kumar Pandit | anil.pandit@iitbombay.org |
| | | Mr. Gajendra Babu | gbabu1951@gmail.com |
| 13. | Indian Electrical and Electronics Manufacturers Association, | Mr. Navdeep Singh | navdeep.singh@ieema.org |
| 14. | Jasper Engineers Private Limited, | Mr. Rudra Satapathy | rudra_satapathy@bchindia.com |
| 15. | Larsen and Toubro Limited | Mr. Ritesh Kumar Patel | riteshkumar.Patel@lntebg.com |
| 16. | NTPC Limited | Mr. Rajesh Sharma | rajeshsharma02@ntpc.co.in |



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|-----|---|-------------------------|--------------------------------|
| 17. | Panasonic Life Solutions India Private Limited | Mr. Vijay Wedhane | vijay.wedhane@in.panasonic.com |
| 18. | Schaltbau India Private Limited | Mr. Shahid | engg@schaltbauindia.in |
| 19. | Schneider Electric India Private Limited | Mr. Saravanan Shanmugam | saravanan.shanmugam1@se.com |
| | | Mr. Anilesh K. | anilesh.kaduthanum@se.com |
| 20. | Siemens Limited | Mr. Vijay Wanwe | vijay.wanwe@siemens.com |
| | | Mr. Rahul Srivastava | srivastava.rahul@siemens.com |
| 21. | Small Scale MCD Manufactures Welfare Association, | Mr. Pramod K Jain | pkjain2503@gmail.com |
| 22. | Tata Consulting Engineers Limited | Mr. P K Arun Kumar | pkarunkumar@tce.co.in |
| 23. | UL India Private Limited | Mr. Madhusudan BK | madhusudhan.bk@ul.com |
| 24. | Western India Switchgear Manufacturers Association | Mr. Dhaval Shah | info@kewelectricals.com |
| 25. | DEVELOPMENT COMMISSIONER MICRO-SMALL AND MEDIUM ENTERPRISES | Mr. Manoj Kumar | manojgu1970@gmail.com |
| 26. | Central Electricity Authority, New Delhi | Ms. Meena Hooda (Guest) | meenahooda2030@gmail.com |

Item 0 GENERAL

0.1 WELCOME & OPENING REMARKS BY THE CHAIRMAN

The Chairman welcomed the members present in the meeting. He highlighted the limited participation from India in IEC meetings and encouraged committee members to actively participate in IEC technical committees and their Working Group meetings. Additionally, he urged all committee members to meticulously review IEC standards during the draft stage. This approach is essential to address any India-specific modifications at the early stages of the IEC standard development. He appreciated the efforts of various working groups of the committee actively contributing to the process of standardization and hoped for a fruitful discussion on all Agenda points.

0.2 Member Secretary welcomed the members to the meeting and briefed the members regarding various agenda points which required detailed discussions and solicited the co-operation of the members for completing the agenda in time.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The committee confirmed the minutes of the 29th meeting of Low Voltage Switchgear and Controlgear Sectional Committee, ETD 07, held on 27 July 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.

2.2 The following organizations to provide updated nominations:

- a) ABB India Limited, Bengaluru



- b) Central Electricity Authority, New Delhi
- c) Central Power Research Institute, Bengaluru
- d) Development Commissioner Micro-Small and Medium Enterprises

2.3 ERDA to recommend representation for convenership of WG 4 'For review of IEC SC 121B Ballot documents'.

2.4 Mr. Shri Shahid M/s Schaltbau India Private Limited to be added in WG 4.

2.5 The committee deliberated on co-option requests received through the Standardization portal. The following decisions were reached:

- a) It was decided to co-opt following organizations:
 - i) Eaton Power Quality Private Limited, Puducherry
 - ii) Eaton India Innovation Center, Pune
 - iii) Socomec India (P) Ltd
 - iv) National Federation of Engineers for Electrical Safety

- b) Mr. Amit Kumar M/s BASF India Ltd., submitted the co-option request in his individual capacity. After deliberation, it was decided to request Mr. Amit Kumar to resubmit the co-option request on behalf of his organization, accompanied by an official company authorization letter.

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 |
|--------|--|---|---|--|
| 1. | Adoption of IEC 60947-7-1: 2009 and IEC 60947-7-2: 2009 | The committee discussed the response received from the Elmex Controls Private Limited, Vadodara regarding identical adoption of IEC 60947-7-1: 2009 and IEC 60947-7-2: 2009 as Indian Standard. Members from Electrical Research and Development Association, UL India Private Limited and Central Power Research Institute are requested to kindly review the full scope of these standards and testing facilities and submit the report to BIS within 2 months. | The response received from ERDA, UL India Pvt. Ltd. and CPRI regarding testing facilities for IEC 62947-7-1: 2009 and IEC 60947-7-2: 2009 are given at Annex 2 of the agenda. <i>The committee may discuss to adopt these IEC standards</i> | The committee decided to Wide circulate the IEC 60947-7-1: 2009 and IEC 60947-7-2: 2009 for the period of 2 months. In case no comments are received during the wide circulation, the documents shall be finalized for printing. |



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| 2. | Adoption of IEC 62423: 2009 | It was decided to circulate the IEC 62423: 2009 'Type F and Type B residual current operated circuit-breakers with and without integral overcurrent protection for household and similar uses' to all the committee members to review. The WG 5 and committee members are requested to kindly assess the suitability of implementation of this IEC standard and submit the report to BIS within 1 month from the date of circulation. | The copy of IEC 62423: 2009 circulated among the committee members to kindly assess the suitability of Implementation of this IEC standard. No comments received from the members. The committee may discuss to adopt the IEC standard. | 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. |
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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 Item 7.4 of Minutes of last meeting 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

| SI. No. | IS/IEC no. |
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| 1 | Doc ETD 07 (23677) Revision of IS 12640 (Part 1): 2016 |



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| | Residual current operated Circuit Breakers without integral overcurrent protection for household and similar uses RCCBs: Part 1 general rules |
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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 |
|--------|--|--|--|---|
| 2. | <p>IS 12640 (Part 2): 2016 Residual current operated circuit - Breakers with integral overcurrent protection for household and similar uses (RCBOs): Part 2 General rules</p> <p>Equivalent IEC: Identical to IEC 61009-1:2010+AMD1:2012 CSV</p> <p>Latest Base IEC: IEC 61009-1:2010+AMD1:2012 +AMD2: 2013 CSV</p> | <p>Mr Madhusudan BK, M/s UL India Pvt. Ltd. agreed to prepare a list of changes being introduced by the amendment 2 of IEC within 2 months from the date of meeting.</p> <p>Committee members were requested to examine the list once circulated and provide their comments, if any, on the same within 30 days from the date of circulation.</p> <p>It was decided that in case of receipt of comments within the above mentioned period from committee members, the comments shall be put up for consideration of the committee.</p> | <p>Mr. Madhusudan prepared the list of changes being introduced by the amendment 2 of IEC 61009-1: 2010 (given at Annex 5 of the agenda).</p> <p>The list of changes circulated among the committee members for their review.</p> <p>No technical comments received from the members.</p> <p>The committee may discuss to adopt the consolidated version (CSV) of IEC 61009-1: 2010</p> | <p>The committee decided to Wide circulate the IEC 61009-1:2010+AMD1:2012 +AMD2: 2013 CSV for the period of 2 months.</p> <p>In case no comments are received during the wide circulation, the documents shall be finalized for printing.</p> |
| 3. | <p>IEC 62955: 2018 Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles</p> | <p>The IEC standard was wide circulated as Doc ETD 07 (22727)</p> <p>IEC 62955: 2018 Residual direct current detecting device RDC-DD to be used for mode 3 charging of electric vehicles.</p> <p>Last date of comments - 22 August 2023</p> | <p>The copy of IEC 62955: 2018 circulated among WG 5 members to examine the standard.</p> <p>The comments received from Ather Energy, Member organisation ETD 51 (attached at Annex 6 of the agenda) also circulated among WG 5</p> | <p>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</p> |



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| | | It was decided to circulate the copy of IEC 62955: 2018 among WG 5 member to examine the standard. | members for their kind consideration. | decision can be taken on the adoption of IEC 62955. |
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4.4 P-DRAFTS UNDER PREPARATION

| Sl No. | IS No. | Decision Taken in last meeting | Action reported in the agenda | Decision taken |
|--------|---|---|---|--|
| 1. | IS 13032: 1991 'A.c. miniature circuit Breaker boards for voltages not exceeding 1000 V - Specification' | <p>Working Group WG 6 was formed with the following scope of work:</p> <p>i) IS 13032 being a pre-2000 standard, the WG 6 shall prepare a draft revision document of IS 13032.</p> <p>WG 6 composition as decided by the committee is given below:</p> <ol style="list-style-type: none"> 1. Shri S.Saravanan, M/s Schnieder Electric – Convener 2. Shri Anil Kumar Pandit, In personal capacity (Member), 3. Shri Robin Virani, /s Elmex Controls Private Limited (Member) 4. Shri Anilesh K, Schneider Electric India Pvt. Ltd. (Member) <p>The applicability of IS 13032 also discussed during the meeting. Mr Saravanan informed that most of the manufacturers are referring IS/IEC 61439</p> | <p>Email sent to Small Scale MCD Manufactures Welfare Association, New Delhi to kindly review the applicability of IS 13032.</p> <p>Mr. Parmod K Jain, Small Scale MCB Mfrs Welfare Association submitted following recommendations:</p> <p><i>'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 (Screen shot enclosed). 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 IS:13032 should continue as separate Standard for MCB Distribution Boards.'</i></p> <p>As IS 13032 is a pre-2000 standard, the committee may discuss to revise the standard on priority.</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.</p> <p>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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| | Part 1 and Part 3 in place of IS 13032. | | |
| | Members from Small Scale MCB Manufactures Welfare Association, New Delhi are requested to kindly review the applicability of IS 13032 and submit the report to BIS within 2 months from the date of meeting. | | |

Item 5 Review of Published Standards for Revision/Reaffirmation

5.1 The committee noted the information given in the agenda.

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 |
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| 1. | IS 5039: 1983 Specification for distribution pillars for voltages not exceeding 1000 V AC and 1200 V DC (First Revision) | <p>WG 1 requested to kindly review the Action Research Report on IS 5039 and submit its recommendations for consideration of the committee within 2 months.</p> <p>WG 1 Composition</p> <ol style="list-style-type: none"> 1. Smt Sumbul Munshi , CPRI (Convener), 2. Shri Rahul Srivastava, Siemens Ltd. (Member), 3. Shri Anil Kumar Pandit, In personal capacity (Member), 4. Shri Shri Madhusudan BK, UL India Pvt. Ltd. (Member) and 5. Shri Anilesh K, Schneider Electric India Pvt. Ltd. (Member)) | <p>Email sent to WG 1 members to kindly review the action research report on IS 5039 and submit its recommendations for consideration of the committee.</p> <p>Smt. Sumbul Munshi M/s CPRI and Mr. Rahul Srivastava from Siemens Limited informed that IS 5039:1983 can be withdrawn and IS/IEC 61439-5: 2014 is more suitable to replace it but this need to be checked carefully and reviewed before proposing as an replacement.</p> | The committee decided to withdraw IS 5039: 1983 as the requirements of IS 5039: 1983 are already covered in IS/IEC 61439-5: 2014. |



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| <p>2.</p> | <p>IS 8588 (Part 1): 1977 Specification for thermostatic bimetal: Part 1 General requirements and methods of tests</p> | <p>Shri Anil Kumar Pandit informed that lot of DIN standards are now referred for thermostatic bimetal in place of IS 8588 (Part 1): 1977.</p> <p>Representatives from IEEMA are requested to kindly check the followings within their membership and submit the report to BIS within 2 months from the date of meeting:</p> <ol style="list-style-type: none"> 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 | <p>The following proposal received from Metallurgical Engineering Department, BIS regarding amendment to IS 8588 (Part 1).</p> <p><i>'the Standard IS 5478:1969 may be superseded by IS 8588 (Part-1) as both the standards are on the same subject, with IS 8588 (Part-1) being broader in scope and more relevant'</i>.</p> <p>Mail sent to committee members to kindly review the above proposal.</p> <p>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.</p> | <p>IEEMA to share the report to BIS on the following points:</p> <ol style="list-style-type: none"> 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 <p>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).</p> <p>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</p> |
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| | | | | between these 2 standards. |
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Item 6 IDENTIFICATION OF RESEARCH & DEVELOPMENT PROJECTS FOR FORMULATION AND REVIEW OF STANDARDS

6.1 The committee discussed the R&D proposal received from Mr. P K Arun Kumar M/s Tata Consulting Engineers Limited, for the formulation of a new standard on '**HIGH AND LOW VOLTAGE CONNECTION SYSTEMS FOR SHIPS**'. The committee members informed that the thorough analysis is required on the feasibility of the project. It was decided to circulate the draft R&D proposal to all the committee members inviting their feedback on the proposal.

Item 7 INTERNATIONAL ACTIVITIES

The committee noted the information given in the agenda.

Item 8 FUTURE PLANS AND STRATEGIES

The new Standards National Action Plan (SNAP) has listed developing Indian Standards on:

- a. LV Switchgear and Controlgear and
 - b. DC Switchgear
- as focus areas.

The Sectional Committee agreed to prioritize among different projects and develop Indian Standards on the subjects identified in SNAP. WG3, WG 4 and WG 5 were advised to identify suitable application areas for developing and harmonizing standards on the above subjects.

Item 9 DATE AND PLACE OF NEXT MEETING

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

Item 10 ANY OTHER BUSINESS

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