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BUREAU OF INDIAN STANDARDS

AGENDA

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
High Voltage Switchgear and Controlgear Sectional Committee, ETD 08	29 th	Thursday	16 May 2024	1100h	<div style="text-align: center;">JOIN MEETING</div> <p>Meeting no: 2511 700 1896 Password : ETD08</p>

CHAIRMAN: Shri M K Wadhvani

MEMBER SECRETARY: Shri Ashok Kumar

Item 0 GENERAL

0.1 WELCOME & OPENING REMARKS BY THE CHAIRMAN

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The minutes of the 28th meeting of High Voltage Switchgear and Controlgear Sectional Committee, ETD 08, held on 13 Sep 2023 virtually, were circulated through BIS-Connect portal ref. no. ETD 08/A-2.28 dated 29 Sep 2023. No comments were received.

The Committee may formally confirm the minutes.

Item 2 COMPOSITION OF HIGH VOLTAGE SWITCHGEAR AND CONTROLGEAR SECTIONAL COMMITTEE, ETD 08

2.1 The present composition of High Voltage Switchgear and Controlgear Sectional Committee, ETD 08 is given at [Annex 1](#).

2.2 The following Co-options have been received via Standardization portal. The CV and the organization authorization letter are also attached in Annex 1 for consideration of the committee.

SI. No.	Name	Organization	Designation
1	Shri ABIR KUMAR MAJUMDAR	General Electric	Manager - Engineering & Design
3	Shri Narendra Kumar Sharma	Eaton Power Quality Pvt Ltd.	Head, Power Distribution Products – NPD & Engineering



2.3 Shri V Ramesh retired from ABB Limited and would like to work with the ETD 08 in his personal capacity.

The Committee may consider.

Item 3 ACTIONS ARISING OUT OF PREVIOUS MEETING

Sl. No.	Item of previous minutes	Decision Taken	Action
-	-	-	-

Item 4 PRESENT POSITION OF WORK

The present position of work under the scope of **ETD 08** is given at [Annex 2](#).

The IEC standards against which no Indian Standards exist have been identified for consideration of the committee for harmonization. The list is given at [Annex 3](#).

The committee may consider.

4.1 DRAFTS UNDER PRINT

Sl. No.	IS/IEC No.	Status
1.	Doc ETD 08 (23461) Specification for interconnecting bus - Bars for ac voltage above 1 kV up to and including 36 kV (First Revision)	The document is under advance stage of printing.
2.	Doc ETD 08 (21278) Amendment 1 to IS/IEC 62271-1 : 2017 High-Voltage Switchgear And Controlgear Part 1 Common Specifications For Alternating Current Switchgear And Controlgear	Amendment 1 to IS/IEC 62271-1 : 2017 Published
3.	Doc ETD 08 (21451) First Revision IS/IEC 62271-100 : 2021 High-voltage switchgear and controlgear Part 100 Alternating-current circuit-breakers	Published as IS/IEC 62271-100 : 2021
4.	Doc ETD 08 (21471) First Revision IS/IEC 62271-101 : 2021 High-Voltage Switchgear and Controlgear Part 101: Synthetic Testing	Published as IS/IEC 62271-101 : 2021
5.	Doc ETD 08 (21473) First Revision IS/IEC 62271-103 : 2021 High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages above 1 kV up to and including 52 kV (First Revision)	Published as IS/IEC 62271-103 : 2021



6.	Doc ETD 08 (21475) First Revision IS/IEC 62271-105 : 2021 High-voltage switchgear and controlgear: Part 105 Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV	Published as IS/IEC 62271-105 : 2021
7.	Doc ETD 08 (21477) First Revision IS/IEC 62271-106 : 2021 High-voltage switchgear and controlgear Part 106: Alternating current contactors contactorbased controllers and motorstarters	Published as IS/IEC 62271-106 : 2021
8.	Doc ETD 08 (21478) First Revision IS/IEC 62271-109 : 2019 High-Voltage switchgear and Controlgear: Part 109 Alternating-current series capacitor by-pass switches	Published as IS/IEC 62271-109 : 2019
9.	Doc ETD 08 (21479) First Revision IS/IEC 62271-111 : 2019 High Voltage Switchgear and Controlgear: Part 111 Automatic circuit reclosers for alternating current systems up to and including 38 kV	Published as IS/IEC 62271-111 : 2019
10.	Doc ETD 08 (21481) First Revision IS/IEC 62271-200 : 2021 High-voltage switchgear and Controlgear Part 200 AC metal-enclosed switchgear and Controlgear for rated voltages above 1 kV and up to and Including 52 kV	Published as IS/IEC 62271-200 : 2021
11.	Doc ETD 08 (21482) First Revision IS/IEC 62271-203 : 2022 High-voltage switchgear and controlgear Part 203: AC gas-insulated metalenclosed switchgear for rated voltages above 52 kV	Published as IS/IEC 62271-203 : 2022
12.	Doc ETD 08 (22070) Amendment 1 IS 5561 : 2018 Electric power connectors - Specification (<i>First Revision</i>)	Amendment 1 to IS 5561 : 2018 Published

The committee may note.

4.2 DRAFTS FOR FINALIZATION

The committee had reviewed the Indian Standards published by ETD 08 along with the status of their base IEC standards as presented before the committee in the last meeting.

As decided, the latest IEC standards (listed in **red** below) for revising the listed Indian Standards were issued in wide circulation for 60 days. No comments have been received so far on any of the documents.

SI No.	IS No.	TITLE	Eqv. IEC	Latest IEC	Action taken
1.	-	-	-	-	-



The committee may consider for finalization.

4.3 DRAFTS FOR APPROVAL FOR WIDE CIRCULATION

SI No.	Subject/IS/IEC no.	Decision Taken	Action Taken
1.	Draft on Code of Practice for on-site Diagnostic Tests and Condition Monitoring of High Voltage Substation Equipment	Member secretary has rearranged certain paragraphs and made modifications to the language to align the draft standard with the BIS Framework of standards. Mail sent to Panel ETD 08/P1 to kindly review the changes made in the draft document and reply to the comments to modify the draft document in the standard WC format.	Certain paragraphs are re-arranged and language is modified to align the draft standard on 'Code of Practice for on-site Diagnostic Tests and Condition Monitoring of High Voltage Substation Equipment' with the BIS Framework of standards. The draft standard circulated to the state utilities/DISOMs separately seeking their comments and suggestions on the draft. Last Date of comments: 5 May 2024 state utilities/DISOMs. No comments were received from IEEMA representatives were requested to circulate the draft standard among industry participants to obtain their comments. IEEMA forwarded the comments received from Schneider electric Ltd to BIS. The comments are attached at Annex 4 . <i>The committee may discuss.</i>

The committee may consider for issuing the document in wide circulation.

4.4 P-DRAFTS

SI No.	Subject/IS/IEC no.	Decision Taken	Action Taken
1.	-	-	-

The committee may consider.

Item 5 Review of Published Standards for Revision/Reaffirmation

5.1 As per the guidelines, published Indian Standards should be reviewed after every five years. If no revision is called for, the standard(s) may be re-affirmed. Reaffirmation of the standard(s), however, does not prevent from these standard(s) being taken up for revision. Following Indian Standards are due for review:

SI. No	IS/IEC No	Title	Remarks
1	IS/IEC 62271-301: 2009	High Voltage Switchgear & Controlgear Part 301 Dimensional Standardization of High Voltage Terminals	
2	IS/IEC 62271-207 : 2012	High - Voltage switchgear and controlgear: Part 207 seismic qualification for gas - Insulated switchgear	Latest IEC: IEC 62271-207:2023



		assemblies for rated voltages above 52 kV (First Revision)	
3	IS/IEC 62271-202 : 2014	High - Voltage switchgear and controlgear: Part 202 high - Voltage/low - Voltage prefabricated substation	Latest IEC: IEC 62271-207:2022
4	IS 5561 : 2018	Electric power connectors - Specification (First Revision)	

The committee may discuss.

Item 6 IMPLEMENTATION OF INDIAN STANDARDS

In order to derive maximum advantage of National Standards, members are requested to adopt these standards in their respective organizations and bring to the notice of BISDG any difficulty that they may experience in implementation. The feedback would enable the concerned Sectional Committee to review the standards and eliminate wherever possible the bottlenecks in the implementation.

The Committee may note.

Item 7 INTERNATIONAL ACTIVITIES

7.1 India is a 'P' in **IEC TC 17 'High Voltage Switchgear and Controlgear'**, **IEC SC 17A 'Switching devices'** and **IEC SC 17C 'Assemblies'**.

The details of published standards of IEC TC 17, IEC/SC 17A and SC 17C which have not been adapted as Indian Standards under ETD 08 are given in **Annex 3**.

The Committee may consider adaption of IEC standards published in these IEC committees.

Item 8 Identification of new subjects for formulation of Standards

8.1 Letter received from CEA regarding the preparation of the Indian Standard for **Gas Insulated Substation (GIS)/Hybrid GIS**. The copy of letter is attached at **Annex 5**.

The panel ETD 08/P2 was formed earlier to review the subject '**GIS Switchgear for voltage levels \leq 52 kV**':

- 1) Mr S S Reddy, CPRI Bengaluru- Convener
- 2) Representative from CEA (member ETD 08)
- 3) Shri Koushik Choudhury, CESC
- 4) Shri Subodh Kale, Siemens
- 5) Shri V. Ramesh, ABB
- 6) Shri B.P. Soni, GETCO
- 7) Shri Pravin K Chhaya, L&T
- 8) Shri V.K. Gajjar, Schneider
- 9) Representative of IEEMA
- 10) Shri Brajanath Dey, Tata Power-DDL
- 11) Shri Abhishek Harsh, BYPL

The committee may discuss.



Item 9 PROCESS REFORMS IN BIS

9.1 Process Reforms in Formulation of Standards BIS has instituted several process reforms in respect of formulation of Indian Standards. It is essential that the members of Technical Committees are fully aware of these reform measures. The Agenda of the first meeting held during this financial year should be devoted to discussing these process reforms and developing a clear understanding of the roadmap for future. The Agenda of these meetings should inter-alia include the following

- i) Annual Action Plan for the year 2024-25
- ii) Annual Calendar of Technical Committee meetings
- iii) Research Projects to be taken up for inclusion of empirical data and insights
- iv) Closer examination of the New Work Item proposals received from IEC
- v) The measures to ensure effective participation by Indian experts in IEC
- vi) National and International events to be participated
- vii) Scientific journals and periodicals to be subscribed
- viii) Creation of pool of experts
- ix) Recognition of Standards of Recognised SDOs (Standards Developing Organisations) as Indian Standards.

9.1.1 Annual Action Plan for the year 2024-25

Annual Action Plan is an important instrument as it helps to plan for the entire year the activities to be undertaken by the committee inter-alia includes documents under development, meetings, new subjects to be taken up, etc. However, the action plan should also have agility to accommodate new requirements arising at any point of time. BIS management therefore emphasizes on preparation of the Rolling Annual Action Plan and advises committees to prepare the one for the year 2024-2025.

Considering the above, the committee may CONSIDER the draft Annual Action Plan for the year 2024-25 given at **Annex 6**.

9.1.2 Annual Calendar of Technical Committee Meetings

The item on date and place for the next meeting of the committee may be replaced with the title “Annual Calendar of Technical Committee meetings”.

9.1.3 Research Projects to be taken up for inclusion of empirical data and insights.

Quality of a standard depends largely on the research data being considered while developing standards. Further, such data also provides insight on the modification required or incorporation of a specific requirement/ parameter in a standard. It is presumed that during the development of a standard the members/ proposer will provide data in support of the proposal/ requirements. In some cases, it is seen that due to lack of such information, the standard does not meet the requirements of the market. BIS management has therefore offered support to committee for taking up research projects to collect empirical data and getting insight for the development of standard.

Guidelines for Research and Development Projects for Formulation and Review of Standards is placed at **Annex 7**.



Following are some of the salient features of these guidelines:

The sectional committee may consider the following points as a research and development project may include one or mix of the following:

- a) Secondary research based on internet or published information including authentic data sources;
- b) Survey based research (including industry visits) to ascertain prevailing market conditions and practices, standards in use, industry and consumer preferences, availability of infrastructure, technical capabilities, comparative trends, economic trends;
- c) Ascertaining compliance to existing and proposed standards through testing, review of past test reports, other validation and verification checks; and
- d) Basic and innovative research to establish normative criteria. Criteria may include performance, health, safety, environmental impact.

The committee may **CONSIDER** and **IDENTIFY** standards for which research project needs to be taken up.

9.1.4 Closer examination of the new work item proposals received from IEC

Participation in the development of international standards from an early stage helps to influence the standard as well as to understand why a specific requirement is being considered. It is therefore important that the New Work Item proposal received from IEC are examined closely and a national viewpoint is prepared on the subject as early as possible.

9.1.5 Measures to ensure effective participation by the Indian experts at IEC level.

The committee is considering various aspects to increase participation in the IEC committees, be it obtaining P-membership, nominating experts in WGs of national interest, voting on the ballots, participation in the meetings, etc. It is however important to measure effectiveness of our participation in international standardization work.

The Committee may **CONSIDER** the measures to ensure effective participation by the Indian experts at IEC level.

9.1.6 National and International events to be participated.

Apart from participation in IEC meetings, the participation of BIS in other national or international importance events on the committee subject can facilitate in staying updated with the new and emerging trends in the field of work, networking and collaboration with relevant experts and stakeholders, influencing policy and decision making, promoting standardization efforts, etc.

The committee may **IDENTIFY** other national and international events wherein BIS should participate for the benefit of standard's work.

9.1.7 Scientific journals and periodicals to be subscribed.

BIS has been subscribing scientific journals and periodicals to support standards work and maintaining these through our central library.



The committee may suggest scientific journals and periodicals which may be useful in standard development especially in the field of Railway Electric Traction Equipments and Systems.

9.1.8 Creation of pool of experts

To have the committee manageable and workable, BIS management has suggested optimum size of a committee as 25-30 members. Further, representations of various interest groups in the committee have also to be ensured. Considering the facts, sometime it felt by the committees that it lacks requisite expertise for developing some specific subject standards. It is therefore essential that a pool of experts has to be created through establishment of subcommittees or panels or WC mailing lists or other modes.

The Committee may **SUGGEST** ways to create and maintain a pool of experts in the field of Railway Electric Traction Equipments and Systems.

9.1.9 Recognition of Standards of Recognised SDOs (Standards Developing Organisations) as Indian Standards

Under the vision of “One Nation One Standard”, BIS is engaged in the establishment, review and promotion of the Indian Standards, in relation to goods, articles, processes, systems and services. Further, there are other premier Standards Developing Organizations (SDOs) in the country who have been formulating sector-specific standards and their standards are widely implemented in their concerned sectors. This document describes the criteria for recognition (including terms and conditions), procedure for recognition and operation of Standards Developing Organizations (SDOs) in India, whether governmental or non-governmental, by the Bureau of Indian Standards.

The committee may kindly note.

Item 9 FUTURE PLANS AND STRATEGIES

The Committee may deliberate upon the future plans and strategies to be adopted by the ETD 08 during the next 5 years aiming at contribution in related standardization activity at national and international level.

The Committee may discuss.

Item 10 DATE AND PLACE OF NEXT MEETING

Item 11 ANY OTHER BUSINESS