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**BUREAU OF INDIAN STANDARDS**

**MINUTES**

<b>Name of the Committee</b>	<b>No. of Meeting</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Mode</b>
Fluids for Electrotechnical Applications Sectional Committee, ETD 03	24 <sup>th</sup>	Tuesday	22-10-2024	1030 h	Virtual

**Item 0 GENERAL**

**0.1 Welcome and Opening Remarks**

Dr. P Thomas, Chairman welcomed all the members present in the meeting. He requested the members to expedite pending actions on the agenda and to participate actively in the discussions during the course of the meeting. He asked the members to ensure participation in all the meetings of the committee and wished for the active participation of the members in the discussions during the meeting.

Smt. Meghna Mudgal, Member Secretary welcomed all the members present in the meeting and briefed about the agenda items of the meeting.

**Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The minutes of the 23<sup>rd</sup> Meeting of Fluids for Electrotechnical Applications Sectional Committee ETD 03 held on 16 May 2024 were confirmed by the committee.

**Item 2 COMPOSITION OF FLUIDS FOR ELECTROTECHNICAL APPLICATIONS SECTIONAL COMMITTEE**

- 2.1 Committee decided to co-opt utilities viz. PSEB, GETCO, MSEB, GE T&D.
- 2.2 The committee decided to retain BHEL, CG Power & Industrial Solutions and Schneider Electric and send them one last reminder as these were the major three OEMs in the committee.
- 2.3 The committee decided to pursue IIT Bombay for inclusion of academia in the committee.

**Item 3 ANNUAL ACTION PLAN FOR STANDARDIZATION 2024-2025**

The committee noted the information given in the agenda.

**Item 4 REVIEW OF PERFORMANCE OF ETD 03-FLUIDS FOR ELECTROTECHNICAL APPLICATIONS SECTIONAL COMMITTEE (2023-2024)**

The committee noted the information.

## Item 5 ACTIONS ARISING OUT OF PREVIOUS MEETING

Sl. No.	Subject	Details	Decision taken in last meeting	Action reported in the agenda	Decision Taken
1	Composition of the Committee	The committee had requested Shri Rajaram Shinde to obtain the nomination details from the following organizations: i) PSEB ii) GETCO iii) MSEB iv) GE T&D	Dr. Rajaram Shinde was not available during the meeting. The committee requested BIS to follow up with the organizations i.e. PSEB, GETCO, MSEB and GE T&D for obtaining the nominations. The contact details of the same would be provided by the committee.	Contact details awaited.	See Item 2.1 above. Dr T.C.S.M Gupta agreed to provide relevant contact details of GETCO, MSEB and GE T&D.
2	IS 1678 5: 2018/ IEEE C57.155-2014	Data on DGA for ester filled transformers to be obtained from GETCO, Tata Power, ERDA, & CPRI. Specific changes occurring due to change in average ambient temperature need to be identified to undertake revision, if necessary.  Shri Rajaram Shinde, informed that IEC is working on consolidated DGA standard for all dielectric fluids.10/1192/CDV IEC 60567 ED5: Oil filled electrical equipment	Shri Naveen Jain informed that DGA data for ester-filled transformers could not be obtained due to non-sharing of data by the utilities. It was informed by the member secretary that a research project on 'DGA data for ester-based transformer fluids and conclude method for interpretation of DGA for fault identifications of Ester Fluid Filled Transformer' was hosted on the BIS website and proposal submitted by NIT Mizoram has been approved for undertaking the project. It has been decided by the committee that the data on DGA for Ester Filled Transformers would be collected by NIT, Mizoram during their course of research since the proposal submitted by them on the R & D Project on the said subject has been approved. The committee decided to provide the necessary assistance to NIT Mizoram for the same.  The committee noted the information regarding publication of IEC	See Item 9.	See Item 9 of the minutes.

		<p>t - Sampling of free gases and analysis of free and dissolved gases – Guidance Circulated vide email dated 13 Feb 2023 with last date</p> <p>The committee has requested Shri Naveen Jain from Cargill India Private Limited to obtain DGA data for ester-filled transformers from GETCO and Tata Power. IEC 60567:2023 has been published on 08/12/2023. The committee may note.</p> <p>Shri Naveen Jain may update the committee</p>	60567:2023.		
3	Revision of IS 335:2018	<p>The committee decided to review IEC 60296:2020 for a period of 3 months for revision of IS 335.</p> <p>A Proposal was received from Central Electricity Authority</p>	<p>It has been decided to constitute a working panel for the revision of IS 335:2018 consisting of the following members:</p> <p>a) Shri TCSM Gupta (APAR Industries Limited, Mumbai) - Convenor b) Dr. Kashinath T. Sutar (Bharat Petroleum Corporation Limited, Mumbai) c) Shri Naveen Jain (Cargill India Private Limited,</p>	Dr T.C.S.M Gupta may update the committee reg. progress of work in the Panel.	<p>Convenor of working panel for revision of IS 335, Dr T.C.S.M. Gupta agreed to call a meeting and submit report and recommendation of the panel in 4 weeks time.</p>

		<p>(CEA) to align IS 335: 2018 with IEC 60296: 2020 in order to have uniformity in the Country and manufacturers exporting insulating oil do not face any problem. The same was discussed during the Sectional Committee meeting dated 27/07/2023. However, Consensus couldn't be achieved during the meeting due to the difference in opinion amongst various stakeholders i.e. some were of the opinion that IS 335:2018 caters to all the requirements and revision was not required whereas some stakeholders were of the opinion to adopt IEC 60296 as an Indian Standard. It was therefore decided to obtain inputs</p>	<p>Gurugram)  <i>d)</i> Shri Pankaj Chawla (Electrical Research and Development Association, Vadodara)  <i>e)</i> Shri Lalit Yadav (Hindustan Petroleum Corporation Limited, Mumbai)  <i>f)</i> Dr. Kavita Rai (Indian Oil Corporation Limited, New Delhi)  <i>g)</i> Shri Koushik Das (NTPC Limited, New Delhi)  <i>h)</i> Shri Gunjan Agarwal (Power Grid Corporation of India, Gurugram)  <i>i)</i> Shri Prabhakar P. Pathak (Savita Oil Technologies Limited, Mumbai)</p> <p>The scope of the working panel as decided by the committee is given below:</p> <ol style="list-style-type: none"> <li>1. Preparation of the working draft in respect of the revision of IS 335:2018 within 3 months.</li> <li>2. Examine and provide technical inputs on all the comments and queries received on IS 335:2018 to the committee.</li> </ol> <p>The committee decided to refer all the comments on IS 335:2018 as mentioned in <b>Annex 3</b> of the agenda to the panel for examination and providing inputs on the same.</p>		<p>Further, the committee agreed to add Mr R K Tiwari Former ED, BHEL Transformer Division and Mr RPS Yadav, Senior Gen Manager-Asset Management of PGCIL to the working panel for IS 335.</p>
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		<p>from utilities in order to reach consensus as they are the end-users.</p> <p>Inputs was sought from the utilities and the inputs received from the utilities are attached at <u><b>Annex 3</b></u> of the agenda.</p>		
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## **Item 6 OVERVIEW OF THE ACTIVITIES OF THE COMMITTEE**

**6.1** The committee noted the information given in the agenda.

### **6.2 SECTOR-SUB-SECTOR CLASSIFICATION IN ETD 03**

The committee discussed the vision of working in ETD 03 after identification of relevant sectors. The committee agreed to work on the draft presented by Member Secretary and conclude this exercise by 07 Nov 2024.

## **Item 7 REVIEW OF INDIAN STANDARDS**

### **7.1 Standards Due for 5 Yearly Review**

The committee noted the information given in the agenda.

### **7.2 Review of Standards —Taking up Revision of pre-2000 standards**

The committee noted the information given in the agenda.

## **Item 8 DOCUMENTS UNDER P-DRAFT STAGE**

**8.1** It was decided to withdraw IS 12177: 1987 ‘Oxidative ageing of electrical insulating liquids by open beaker method method of test’ based on ARP discussion with Mr Chandan, BIS Officer during the meeting.

**8.2** The committee noted that all other 6 Pre-2000 standards (IS 11697:1986, IS 12475 (Part 1): 1988, IS 12475 (Part 2): 1988, IS 13155: 1991, IS 13067: 1991, IS 12958: 1990) are under review as ARP projects by BIS officials.

It was decided to review the 3 P-drafts already circulated (listed below) for the following Pre-2000 standards till the time ARP reports are received and provide comments/confirm latest by 15 Nov 2024:

- IS 11697: 1986 Methods for the determination of the lightning impulse breakdown voltage of insulating liquids
- IS 12475 (Part 1): 1988 and IS 12475 (Part 2): 1988 Gassing of insulating liquids under electrical stress and ionization

## **Item 9 DOCUMENTS APPROVED FOR WIDE CIRCULATION**

The committee reviewed the changes listed in Annex 7 which indicated the changes in base IEC of IS 9434:2019. The committee discussed and agreed that the changes introduced by latest IEC 60567:2023 are being followed by the Indian stakeholders as well, for sampling of gases and analysis of free and dissolved gases. It was, therefore, decided to revise IS 9434:2019 in line with its latest base IEC 60567:2023. It was decided to circulate IEC 60567:2023 in wide circulation for 60 days for revision of IS 9434.

## **Item 10 NWIP – R&D**

The committee observed that sufficient progress has not been made by the Project leader. The committee clarified that the purpose of the project was itself to collect data of natural and ester based fluids after obtaining samples and testing them to carry out the DGA analysis. The project leader was advised by the committee to immediately collect samples and initiate testing. Further, various committee members offered to talk to GETCO and TATA Power to support the R&D work if the project leader needs.

Based on the above, the committee agreed to provide 1 month extension to the Project leader for carrying out the project in line with the defined timelines and milestones.

The committee asked the Project leader to submit a revised report based on the discussions above in 1 month time (30 days from the date of this meeting) and agreed to have a meeting of the sectional committee after 1 month only to review and discuss the progress of work so that due process can then be initiated for further fund release, if progress is then found satisfactory by the committee.

## **Item 11 INTERNATIONAL ACTIVITIES**

**11.1** The committee noted the information given in the agenda.

### **11.2 Designation of Experts & Level of Interest In IEC TC 10 Projects**

The committee deliberated and decided that the level of interest for “10/1218/CD IEC 63359 ED1: Fluids for electrotechnical application: Specifications for the re-use of mixtures of gases alternative to SF<sub>6</sub>” must be medium and not high as this committee is mostly focused on fluids and not gases.

The committee decided to nominate Dr T.C.S.M. Gupta as the designated expert for 10/1246/CD ‘IEC 63585 ED1: Interpretation of Dissolved Gas Analysis in natural and synthetic esters’.

### **11.3 Nomination of experts to WG/MT under IEC TC 10**

- i. The committee approved the nomination of following technical committee experts for WG/MT nominations as designated experts from India:
  - WG 45 & MT 38 - Dr T.C.S.M. Gupta (already registered)
  - WG 46 – Mr Nitin Dhamale (new nomination)

Both experts agreed to the roles and responsibilities listed at 11.3 of the agenda.

Dr Gupta agreed to submit reports of participation in WG 45 and MT 38 for the calendar year 2023 and 2024.

- ii. It was decided to identify experts from M/s Powergrid Corporation of India for nomination as designated experts for MT 20 and MT 22.
- iii. It was also decided to delete Mr Narasimhan’s nomination from MT 36 based on his

continued absence from both Indian and International scenario.

**11.4** The committee noted the information given in the agenda.

**11.5** The committee noted the information given in the agenda.

**11.6** *See* 11.3 above.

**Item 12 DATE AND PLACE FOR THE NEXT MEETING**

It was decided to hold the next meeting virtually after 1 month after receipt of revised progress report of NP listed at Item 10 above. The final date shall be decided in consultation with the chairperson of the committee.

**Item 13 ANY OTHER BUSINESS**

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