BUREAU OF INDIAN STANDARDS

MINUTES OF MEETING

GLASS, GLASSWARE AND LABORATORYWARE SECTIONAL COMMITTEE, CHD 10

Twenty Fifth Meeting

Day & Date	**:**	Monday, 18 March 2024
Time	**:**	02 : 30 PM
Venue	**:**	CGCRI, Kolkata (Hybrid)

The list of attendees is attached at Annex-I.

Item 1 OPENING OF THE MEETING

1.1 Welcome by Bureau of Indian Standards.

On behalf of BIS, Shri Ajay K Lal, Head (CHD) welcomed the chair and all the members to the meeting while the member secretary briefed the agenda to the committee.

1.2 Opening remarks by Chairperson.

The chairperson warmly welcomed all the members to the meeting and expressed her desire for a fruitful discussion.

Item 2 COMPOSITION OF THE COMMITTEE

2.1 The committee reviewed and confirmed the scope & composition of CHD 10 Committee along with the following changes:

i. Dr. Tanweer Alam from Indian Institute of Packaging, Delhi was appointed as the convener of CHD 10:3 Glass Containers and Packaging Subcommittee.

ii. The membership of Building Materials and Technology Promotion Council, DPIIT, and Shree Labware and Process Systems were withdrawn as they had not attended the last 3 meetings of the committee.

iii. From Controllerate of Quality Assurance, Dr. S K Pandey shall replace Dr. S K Tiwari.

iv. From Gold Plus, Ms Sheetal Khanna shall replace Shri Vivek Dubey.

Item 3 DRAFT STANDARDS/ AMENDMENTS FOR FINALIZATION

3.1 Amendment No. 2 to IS 2553-1: 2018 Safety Glass – Specifications [Doc. No. CHD 10/24069]

The committee noted that in response to the comment received from M/s Amrapali Glass Industries, the draft amendment prepared by the CHD 10:4 Processed Glass Subcommittee was sent for wide circulation on 14-11-2023 for a period of one month. The amendment addresses the following issues:

- **Fragmentation Test for small flat glass pieces**: For fragmentation test, a glass of minimum area of 0.36 m2 is required as of now. However, there are glass processors with limited furnace capacity and in some cases, the furnace is so small such that it cannot handle glass pieces having an area of 0.36 m^2. Generally, these glasses are used in electronic appliances and utensils. The subcommittee deliberated an alternative method for smaller glass pieces and recommended that for flat samples, the same test method and requirement as given in 5.3 of IS 2553 (Part 1) may be used with actual size of the glasses.
- **Fragmentation Test Method for Curved Glasses**: Some glass processors are only processing curved glasses such as utensil lids, but as of now in IS 2553 (Part 1): 2018, the fragmentation test is carried out on flat glass samples only however the curved safety glass is recognized as a separate variety, hence for ensuring consumer safety, a fragmentation test method for curved safety glasses may be added. The subcommittee recommended a test method and the requirements for evaluating the fragmentation test for curved glasses.
- **Addition of Impact Test for small pieces of glasses**: In the Amendment No. 1, it was decided that the subcommittee is looking for an alternative test method to ball drop test which may be added for smaller and thinner safety glass samples. The subcommittee noted that in IS 2553 (Part 3) which is the Indian standard on safety glass for solar applications, a steel ball weighing 227 g is used instead of 1040 g ball for glasses having thickness less than 5 mm. Hence, the subcommittee recommended that the same may also be specified in this standard also.

During the circulation period a comment was received from Gold Plus Glass Industry regarding the impact test for small glass pieces which has been discussed in the 11th meeting of the CHD 10:4 Subcommittee held on 06-02-2024 wherein the subcommittee rejected the comment.

Based on the recommendation of CHD 10:4 Subcommittee the committee finalized the amendment as attached in **Annex-II** and requested the member secretary to send the draft for printing.

3.2 Amendment No. 1 to IS 2553 (Part 3): 2018 Safety Glass for Solar Applications [Doc. No. 24807]

The committee noted that on the proposal of the BIS secretariat, the CHD 10:4 subcommittee in its 11th meeting held on 06-02-2024 prepared a draft amendment to update the requirements for raw material (a reference to the "extra clear patterned glass variety in IS 5437" is added replacing the old reference to a draft document which has been dropped). The draft amendment was sent into wide circulation for a period of one month and one comment was received during the circulation as given below:

Comments from ASAHI India: In clause 5.1, the requirements may be converted to recommendatory in line with the practice being followed in other Indian standards.

The committee deliberated on the above comment and decided to reframe the requirement as stated below:

" "

The committee finalized the draft amendment as attached in **Annex-III** and requested the member secretary to send the draft for printing.

3.3 Documents recommended by CHD 10:5 for finalization.

3.3.1 Revision of **IS 4825: 1982** Liquid-in-glass solid-stem reference thermometers – specification [Doc. No. CHD 10/24360]

3.3.2 Revision of **IS 6500: 1972** Thermometer for measurement of sea surface temperature – specification [Doc. No. CHD 10/24353]

3.3.3 Revision of **IS 5725: 1970** Psychrometers unventilated dry and wet bulb hygrometers – specification [Doc. No. CHD 10/20974]

3.3.4 Revision of **IS 6592: 1972** Soil thermometers – specification [Doc. No. CHD 10/24339]

3.3.5 Revision of **IS 6274: 1971** Method of calibrating liquid - In - Glass thermometers [Doc. No. CHD 10/24354]

3.3.6 Revision of **IS 2627: 1979** Liquid-in-glass thermometers – glossary [Doc. No. CHD 10/24340]

3.3.7 Revision of **IS 5681: 1992** General meteorological liquid in-glass thermometers – specification [Doc. No. CHD 10/24334]

3.3.8 Revision of **IS 6017: 1971** Thermometer for whirling psychrometers – specification [Doc. No. CHD 10/24380]

The committee noted that the CHD 10:5 subcommittee in its 3rd meeting decided to revise all the thermometer standards based on the changes made in the other thermometer standards such as:

i. Kerosene oil and other thermometric liquids have been added as an alternative thermometric liquid along with their recommended working temperature range.

ii. Requirement for Stability is added by referring to IS 6274: 1971.

iii. A test method for accuracy has also been added by referring to IS 6274: 1971.

iv. A sampling plan for lot inspection has also been prescribed.

v. Class of glass used is prescribed as HGB 3 or better as per IS 2303(Part 1/Sec 1): 2021.

vi. Updated BIS Certification Marking Clause as per BIS Act 2016 and rules and regulations framed thereunder; and,

vii. Several editorial changes as per the latest standard format such as inclusion of Hindi title, ICS No., Reference clause, updated references, etc.

The committee in its 22nd meeting approved these documents for wide circulation for a period of 2 months incorporating the above changes and accordingly these documents were circulated.

Following comment was received from Omsons Glassware Pvt. Ltd. during the wide circulation:

- In the list of thermometric liquids, one more liquid may be added which they have been using for a very long time and is accurate for use within the temperature range of 0 to 260 ^{0}C.

The committee deliberated on the comment received from the Omsons Glassware Pvt. Ltd. and opined that the name and specification of the liquid shall be known to the committee and after verification from NPL and other labs, it shall be specified in the standard also. The committee referred these standards back to CHD 10:5 for further discussion on the new thermometric liquid.

These documents may be sent for printing after due discussion in the CHD 10:5 and subsequent approval from the Chairperson.

3.3.9 Revision of IS 12255: 1988 Baume Hydrometer – Specification

The committee noted that the revised draft [Doc. No. CHD 10/20852] incorporating the following changes was sent for wide circulation for a period of 2 months:

1) Existing standard covers Hydrometer for only liquid heavier than water however Baume Hydrometers are also commonly used for measuring the density of liquids lighter than water. In this revision hydrometers for liquids lighter than water are also covered.

2) Dimensions of hydrometers like length and diameter have been modified to accommodate hydrometers of higher accuracy/least count.

3) Marking details have been modified. The explanatory note has been modified.

During the circulation, following comments were received:

- The thickness of graduation lines is changed to 0.5 mm max instead of 0.2 mm.
- Addition of a figure to illustrate the markings and graduations/ figuring on the scale.
- Provision for 20 ^{0}C as Calibration temperature in addition to the 27 ^{0}C.

The CHD 10:5 Subcommittee in its 4th meeting reviewed the document and accepted the above comments after due discussion in the meeting.

Based on the recommendation of CHD 10:5 subcommittee, the committee finalized the draft and requested the member secretary to send the draft for printing.

3.3.10 Revision of IS 4426: 1992 Methods of sampling laboratory glassware

The committee noted that the revised draft [Doc. No. CHD 10/20485] incorporating the following changes was sent for wide circulation for a period of 2 months:

While reviewing the standard, the committee noted that all the referred test methods have been revised and new standards for testing of capacity and thermal shock resistance of laboratory glassware have been published by adopting ISO 4787 and ISO 718 respectively, hence in view of the above, the committee decided to undertake the second revision of the standard to incorporate the above changes along with the editorial changes such as the addition of ICS No., Hindi Title, Updation of References, etc. as per the latest standard formulation practices.

The draft has completed the WC stage without comments. The document has been reviewed by CHD 10:5 subcommittee in its 4th meeting and recommended for finalization for printing.

Based on the recommendation of CHD 10:5 subcommittee, the committee finalized the draft and requested the member secretary to send the draft for printing.

3.3.11 Revision of IS 10073: 1982 Plastics laboratory ware – Graduated measuring cylinders

The committee noted that the revised draft [Doc. No. CHD 10/21577] as an adoption of ISO 6706: 1981 was sent for wide circulation for a period of 2 months which has now been completed. The document has been reviewed by CHD 10:5 subcommittee and recommended for finalization for printing.

Based on the recommendation of CHD 10:5 subcommittee, the committee finalized the draft and requested the member secretary to send the draft for printing.

3.3.12 Revision of IS 10231: 1982 Plastics laboratory ware – Filter funnels

The committee noted that the revised draft [Doc. No. CHD 10/21578] as an adoption of ISO 7057: 1981 was sent for wide circulation for a period of 2 months which has now been completed. The document has been reviewed by CHD 10:5 subcommittee and recommended for finalization for printing.

Based on the recommendation of CHD 10:5 subcommittee, the committee finalized the draft and requested the member secretary to send the draft for printing.

3.3.13 Revision of IS 10072: 1982 Plastics laboratory ware – Beakers

The committee noted that the revised draft [Doc. No. CHD 10/21576] as an adoption of ISO 7056: 1981 was sent for wide circulation for a period of 2 months which has now been completed. The document has been reviewed by CHD 10:5 subcommittee and recommended for finalization for printing.

Based on the recommendation of CHD 10:5 subcommittee, the committee finalized the draft and requested the member secretary to send the draft for printing.

Item 4 DRAFT STANDARDS/ AMENDMENTS FOR WIDE CIRCULATION

4.1 Fire Resistant Glass – Specification [Doc. No. CHD 10/22416]

The committee noted that:

- The draft prepared by CHD 10: P2 FRG Panel was circulated as preliminary draft for 21 days on 08-05-2023 among the committee and panel members for comments/views.
- The comments received from the members have been discussed in 7 meetings of the panel.
- A seminar was also held on the draft standard on 03 Feb 2024 at JIO World Convention Centre, Mumbai during the Fire Safe Build India event on “Passive Fire Protective Systems”.
- In the seventh meeting of the panel held on 26-02-2024, the panel recommended the draft attached at **Annex-IV** for wide circulation for a period of 2 months.

Based on the recommendation of CHD 10:P2 FRG Panel, the committee approved the draft for wide circulation for a period of 60 days.

Item 5 NEW SUBJECTS

5.1 Chemically Tempered Screen Glass Protectors

The member secretary informed the committee that based on the decision of the committee in its last meeting, the ToR approved by the committee for a R&D project was uploaded on the BIS website with a deadline of 29 Feb 2024, however no proposal was received. Also, the Ministry of Electronics and Information Technology (MEITY) has requested BIS to expedite the standard for “Chemically Tempered Screen Glass Protectors”.

In view of the above, the member secretary proposed to condense the scope of the document and limit it to the specifications of chemically tempered screen glass protectors only. The member secretary has already initiated the work of identifying the relevant stakeholders and is developing a working draft on the subject with the help of Gold Plus Glass Industry and Corning Glass.

The committee agreed to the proposal of the member secretary and decided to refer the subject to CHD 10:4 Processed Glass Subcommittee. The proposed timelines for the development of this standard are as follows:

Preliminary circulation of the draft: 30 May 2024

Wide circulation of the draft: 30 August 2024

Finalization of the draft: 30 December 2024

Item 6 DATE AND TIME FOR NEXT MEETING

The committee decided to hold the next meeting in the last week of June 2024 and requested BIS to explore the opportunity to hold another half-day seminar on glass along with the meeting. The exact date, venue and schedule shall be communicated at least 3 weeks prior to the meeting.

Item 7 VOTE OF THANKS

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

The Head-CHD, BIS extended the thanks to CSIR-CGCRI for hosting the meeting and seminar and special thanks to GSI for making all the arrangements.

ANNEX – I

List of attendees for 25th meeting of GLASS, GLASSWARE AND LABORATORYWARE SECTIONAL COMMITTEE CHD 10

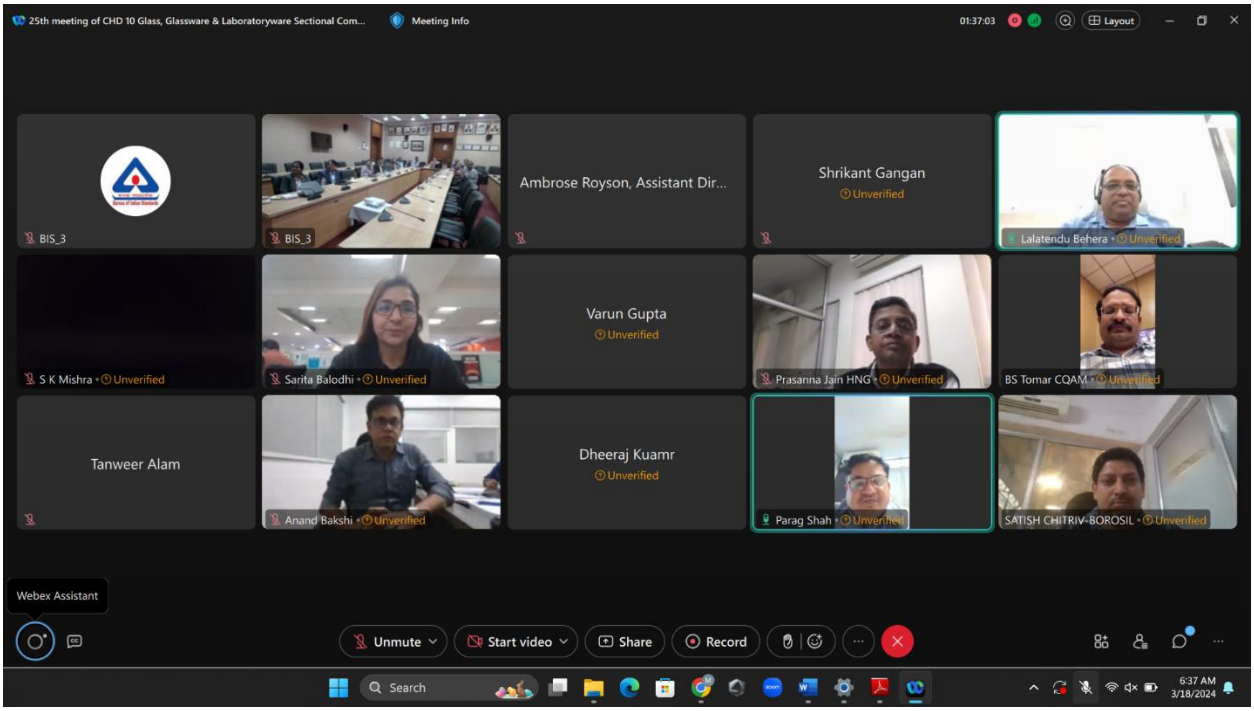
Chairperson: Dr. Suman Kumari Mishra, Director-CSIR-CGCRI, Kolkata

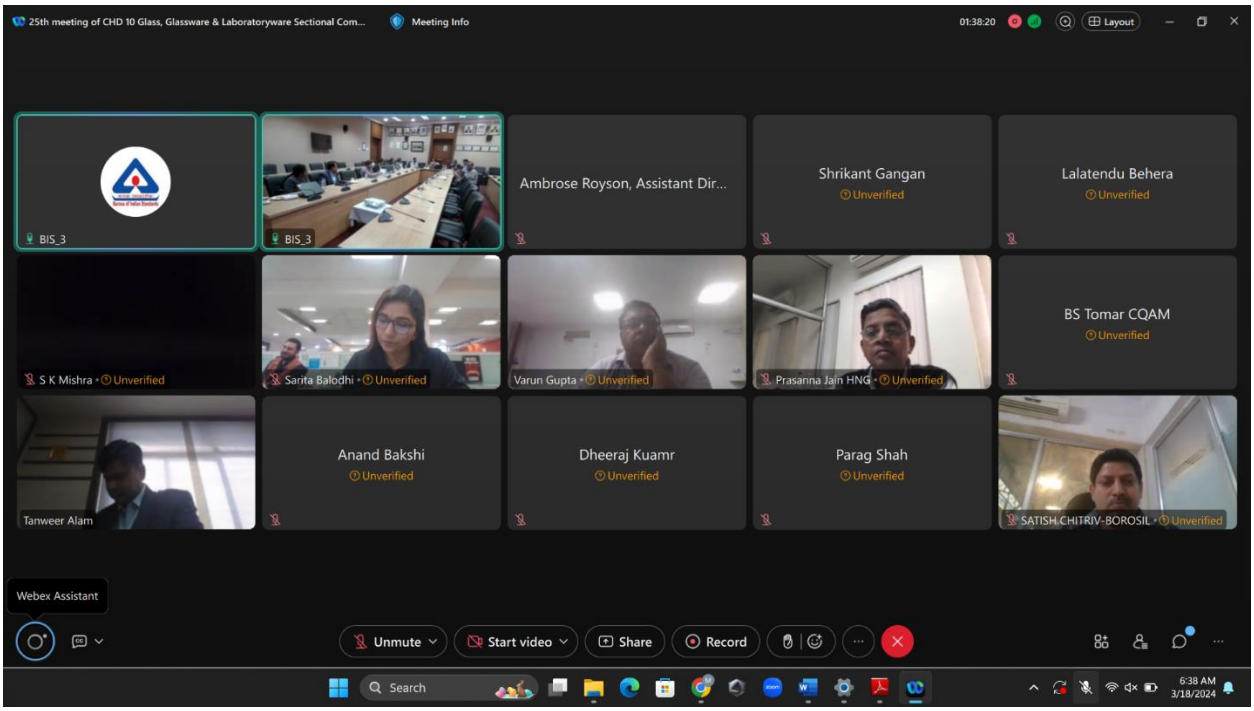
BIS Officials: Shri Ajay Kumar Lal, Head-Chemical Department

Shri Mohit Garg, Member Secretary - CHD 10

Sl. No	Organization	Representative
1.	Asahi India Glass Limited, Rewari (**M**)	Shri Nagendra Kumar Shri Tushar Manohar Zope
2.	Borosil Ltd, Mumbai (**M**)	Shri Satish Chitriv (VC)
3.	Confederation of Construction Products and Services, New Delhi (**U**)	Smt. Sarita Balodhi (VC)
4.	CSIR-Central Building Research Institute, Roorkee (**R**)	Shri Ajay Chaurasia (VC)
5.	CSIR-Central Glass & Ceramic Research Institute, Kolkata (**R**)	Dr. K Annapurna Dr. Sitendu Mandal
6.	Controllerate of Quality Assurance (Materials), Kanpur (**O**)	Shri B S Tomar (VC)
7.	Glazing Society of India, Chennai (**T**)	Shri G N Gohul Deepak MS Dilna Subramanian
8.	Gold Plus Glass Industry Ltd., New Delhi (**M**)	Ms Sheetal Khanna
9.	Govt. College of Engineering and Ceramic Technology, Kolkata (**A**)	Dr. Rituparno Sen
10.	Hindustan Glass Works Ltd, New Delhi (**M**)	Shri Varun Gupta (VC)
11.	Hindustan National Glass & Industries Ltd, Kolkata (**M**)	Shri Prasanna Jain (VC)
12.	HSIL Ltd., Packaging Products Division, AGI Glaspac, Hyderabad (**M**)	Shri Dheeraj Kumar (VC)
13.	Indian Institute of Packaging, Mumbai (**A**)	Dr. Tanweer Alam (VC)
14.	Office of the Development Commissioner (MSME), New Delhi (**O**)	Shri Ambrose Royson C (VC)
15.	Saint - Gobain India Pvt. Ltd., Chennai (**M**)	Shri Chiranjit Roy (VC)

		Shri Hatinder Vohra
16.	Schott Glass India Pvt. Ltd., Pune (**M**)	Shri Anand Bakshi (VC) Shri Lalatendu Behra (VC)
17.	Shriram Institute for Industrial Research, Delhi (**A**)	Shri Arun Kumar (VC) Shri Puneet Kapoor (VC)
18.	SISECAM Flat Glass India Pvt. Ltd., Panchmahal (**M**)	Shri Parag Shah (VC)
19.	In Personal Capacity	Shri Shrikant Gangan (VC)




25th meeting of CHD 10 Glass, Glassware & Laboratoryware Sectional Com...
Meeting Info
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Ambrose Royson, Assistant Dir...
Shrikant Gangan
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S K Mishra • Unverified
Sarita Balodhi • Unverified
Varun Gupta • Unverified
Prasanna Jain HNG • Unverified
BS Tomar CQAM
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Tanweer Alam
Anand Bakshi
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Dheeraj Kuamr
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