

**Bureau of Indian Standards**

**Metallurgical Engineering Department**

***Draft* Agenda**

***of***

**25th Meeting of MTD 08 Sectional Committee**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of the Committee** | **Meeting No.** | **Day** | **Date** | **Time** | **Venue/Mode** |

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| --- | --- | --- | --- | --- | --- |
| **Ores and Feed Stock for Copper Industry, its Metals/Alloys and Products** Sectional Committee,  **MTD 08** | 25th | Monday | 11 March 2024 | 10:30 am | **Hybrid Meeting**  **Venue :**  **Chintan (Bronze room)**  Manak Bhawan, Bureau of Indian Standards, 9, Bahadur Shah Zafar Marg, New Delhi - 110002  **Meeting URL :** <https://bismanak.webex.com/bismanak/j.php?MTID=m6d011aff4e77ca7b6d290af858b002e6>  **Meeting ID :** 2511 313 3834  **Password :** MTD8\_25  **For more details contact:**  **Email:** [mtd8@bis.gov.in](mailto:mtd8@bis.gov.in) |

***Chairperson*: Dr D. De Sarkar *Member Secretary*: Shri Vishal Kumar Rana**

## **Item 0 General**

**0.1 Opening Remarks by BIS**

**0.2 Opening Remarks by the Chairman**

## **Item 1 Confirmation of Minutes of Last Meeting**

The minutes of 24th meeting of Ores and Feed Stock for Copper Industry, its Metals/Alloys and Products Sectional Committee, MTD 08 held on 27th October 2023 was circulated among the members via BIS portal on 01 January 2024 inviting comments till 16 January 2024. No comments were received from the members.

**The Committee may formally confirm the minutes.**

## **Item 2 Issue Arising Out of the Previous Meeting of MTD 08**

The issues arising out of the previous meeting of MTD 08, actions taken on them and progress made thereof are given in [**Annex-1**](#Annexure1).

**The committee may please note and review the status of pending issues**.

## **Item 3 Scope and Composition of Sectional Committee, MTD 08**

**3.1 Review of the Membership in the Committee**

In accordance with the guidelines, the composition should be compact and the membership of the committee shall be reviewed after 3 years and the organizations representing for reasonable long time without participation / contribution may be substituted by new organization who are capable of contributing in the new technologies / area(s) of work. A recent directive from DG, BIS has been received to include young scientists/professionals in the composition of the technical committees. Committee may please identify young scientists/professionals for inclusion in the committee. Also, members are expected to actively participate in the committee work which includes participating in meetings as well as in formulation and commenting on draft documents. Failing to do so may lead in withdrawal of membership.

**3.2 Balancing of All Interested Groups in the Committee**

It has been decided that the compositionof the Technical Committee should be reviewed to have at least two third of the committee members representing Consumers/Technical Bodies/R&D/Testing Laboratories/ educational institutions/ Govt. Departments etc., and the representation of the manufacturing industries/Associations of Industries should be not more than one third of the committee members. NGO’s and Consumer Organizations may be co-opted in Technical Committees where there is no adequate representation.

**3.3 The Size of the Committee**

The size of the committee is often a compromise between a reasonably broad basis of representation and the need to restrict membership to workable numbers. Generally, a smaller membership will be appropriate for a committee dealing with detailed aspects of a standard, with wider representation being provided at the more senior committee levels. In order to keep committee to a workable size, the optimum size of a Sectional Committee is 30 and it should have individuals (in personal capacity or as representative of an organisation) with widely acknowledged domain area expertise and experience on the subjects covered by the scope of the Sectional Committee. Whenever an organisation viz. Ministry, Industry Association or Research and Academic Institutions is included in the Sectional Committee, it should be ensured that the person representing the organisation is clearly specified and has the desired standing.

**3.4 Attendance of Members in the Committee**

If a member fails to attend two consecutive meetings of the Sectional Committee, communication should be sent to him by the Head of the Department concerned seeking his cooperation in the functioning of the Committee. If the member concerned fails to attend the Sectional Committee meeting even after the communication was sent, his/her membership shall be liable to be terminated. The Sectional Committee should review all these cases and the cases of absenteeism of serious nature and make suitable recommendations for their replacement to the Divisional Council.

**3.5** The present composition of MTD 8 is given in **[Annex-2](#Annexure2)**.

**3.6** In the last meeting of the sectional committee held on 27th October 2023 the committee had decided to seek interest from following organizations:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Name of the Organization** | **Decision during the previous meeting** | **Action Taken** |
|  | Precision Wires India Pvt. Ltd. | The committee advised the member secretary to contact Shri Jayanta Ranasingh of Hindalco Industries Limited regarding the contact details of the nominating authority of the organization.  The mail was sent to Shri Jayanta Ranasingh regarding the contact details of the nominating authority of the organization on 19th October 2023.  The committee noted the information and after deliberation advised Sh. Jayanta Ranasingh of Birla Copper Ltd. to contact Precision Wires India Pvt. Ltd. regarding co-option in the committee. | Reply is awaited. |
|  | Non Ferrous Materials Technology Development Centre, Hyderabad | The committee advised member secretary to again seek interest from the organization regarding co-option.  The committee noted the information and advised the member secretary to contact the organization once again regarding co-option. | Mail sent to Non ferrous Materials Technology Development Centre on 30 Jan 2024 for co-option in the committee.  No reply has been received till date. |
|  | Ministry of Mines, New Delhi | The committee decided to co-opt Ministry of Mines in the committee and advised member secretary to send the co-option mail to the organization. | Mail sent to Ministry of Mines on 30 Jan 2024 for co-option in the committee.  No reply has been received till date. |

**The committee may note and decide.**

**3.7** The following organizations are requesting membership in the committee:

|  |  |
| --- | --- |
| **Sl No.** | **Organization** |
| **1) Mandev Tubes Pvt Ltd** | We have received following request from M/s Mandev Tubes Pvt Ltd., a manufacturer of copper pipes, to become part of MTD 08 Sectional Committee: |

**The committee may deliberate and decide.**

## **Item 4 Comments on Printed Indian Standards**

**4.1** BIS has received following comments from M/s LS Metal Co., Ltd. to add new grade (C14435) in Indian Standards IS 10773:1995, IS 1545:1994 and IS 191:2007:

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**The Committee may please deliberate and decide.**

**4.2** BIS has received several representations from various organizations on the resistivity test for copper cathode, which are placed below:

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**The Committee may please deliberate and decide.**

## **Item 5 Review of Indian Standards**

**5.1 Periodical Review of Standards**

Each published Indian standard is required to be reviewed by the concerned sectional committee after every five years of its publication/Reaffirmation and the Pre 2000 standards which are due for reaffirmation shall be revised. The guidelines given by Standards Advisory Committee (SAC) are as follows:

1. The standards may be reaffirmed in its present form;
2. The standards may be reaffirmed with minor changes by issuing an amendment;
3. The standards may be reaffirmed with simultaneously taking up the revision; and
4. The standards may be withdrawn.

**5.1.1** The review of each and every existing Indian standard shall follow the **Action Research** based approach. This implies that preparation of a Review Document to be put up to the committee for consideration must be preceded by the following activities:

1. Study and analysis of relevant international standards.
2. Literature survey on the subject.
3. Interaction with the industry on the changes in the technologies, manufacturing processes or test methods.
4. Visit to leading manufacturing units for the first-hand information on the manufacturing processes.
5. Interaction with BIS officers and labs for feedback on certification and test method related issues.

**5.1.2** The Action Research for the review of standards can be assigned to the member secretary of the Sectional Committee, scientific officers of BIS, members of the Sectional Committee, sub-committee or working panel, academic or research institution, industry association, a specific industry or ministry and an organisation thereunder. The Sectional Committee shall decide the individuals or organisations to be assigned Action Research projects.

**5.1.3 Review of IS 9713**

Comments received from Shri Mayur karmarkar are placed below:



**5.1.4** Review of standards shall be taken up through the Review Module of the Standardization Portal.

**The committee may please note.**

## **Item 6 List of Indian Standards**

The list of Indian Standards formulated by MTD 8 is given at **[Annex-3](#Annexure3)**.

**The committee may please note.**

## **Item 7 New Proposals for Standardization**

**7.1** As per new guidelines received from Competent Authority, any proposal to be taken up for formulation or revision of a standard, it must be submitted through the Standardization Portal and with adequate justification in support of the proposed standard. Proposals which are in the nature of a wish list and do not have the required justification shall be returned to the sender forthwith for resubmission in the desired manner. If the proposal was received from Ministry, the communication should go from DDG and in all other cases from the Head of Department. Where a proposal is made in the Sectional Committee, the member making the proposal should send the proforma beforehand through the portal and present it in the meeting for consideration of the committee. The sample proforma is given in **[Annex-4](#Annexure4)**.

**7.2** It may further be added that the proposal received at **7.1** has to be analyzed by the member secretary in the prescribed proforma for consideration of the technical committee/screening committee keeping the following in view:

1. What is the feasibility of achieving consensus on national standards in this subject area by the proposed target date;
2. How many members besides the proposer agree to the proposal and how many are ready to actively participate in the development of the project;
3. Whether any outside funding is possible;
4. Only those subjects should be taken up which have a potential to mature into a standard in the stipulated time.

**7.3** In reference to the recommendations of Committee of Secretaries (CoS) on notifying TRs to address regulatory gap in India a review meeting of core groups was held on 15 June 2021. In the meeting, DoC suggested BIS to explore the possibility regarding formulation of standards for the products of the following HS codes:

1. 74020090 (OTHER UNREFINED COPPER; COPPER ANODES FOR ELECTROLYTIC REFINING)

2. 74020010 (BLISTER COPPER FOR ELECTROLYTIC REFINING)

The committee in 22nd meeting sought inputs from Birla copper Ltd. And Sterlite copper on the above. The reply received is placed below:



In last meeting committee decided to revisit the proposal again in 25th sectional committee meeting.

**The committee may please deliberate and decide.**

**7.4** Formulation of Standard on Cu-Scrap and Cu-Alloys:

In the 24th TC meeting of MTD 08, the committee decided that Copper scrap and Copper alloy scrap standard will be discussed after the finalizing and printing of Aluminium scrap standard.

**The committee may note.**

**7.4** Standard formulation of copper wires for electrical purposes to bridge the gap area in the standardization of MTD 08, specifically to cover wire (dia <6mm) which are further used in Electrical Industry as raw material for conductors and winding wires.

## **Item 8 Latest Initiatives Taken by Bis**

**8.1** Latest guidelines issued by the BIS to bring greater efficiency in the standard formulation and revision work are given below:

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**The committee may please note.**

**8.2** The Rolling Annual Action Plan for the year 2023-24.



**8.3** Tentative Annual Calendar of Technical Committee meetings

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Quarterly meeting schedule 2023-24 of MTD 8** | | | | | | | | | | | | |
| **March**, **2023** | **April ,2023** | **May ,2023** | **June ,2023** | **July ,2023** | **August ,2023** | **September ,2023** | **October ,2023** | **November ,2023** | **December ,2023** | **January, 2024** | **February, 2024** | **March, 2024** |
|  |  |  |  | 25-July-23 |  |  | 27-Oct 23 |  |  |  |  | 11-Mar-24 |

**8.4 Pro-Active Actions Taken For Dissemination of Information through Social Media:**

Since last meeting of the Council, a series of important Indian Standards have been published and number of workshops/seminars have been conducted by BIS for dissemination of information about these. In order to reach large number of stakeholders and communicate effectively with them, social media tools like Facebook, Instagram, WhatsApp, Twitter, LinkedIn, YouTube, etc. are being utilized by BIS and the same may be followed at below mentioned links for information on BIS activities:

Twitter: http://bit.ly/BISTwitterOfficial (@IndianStandards)

Facebook: https://www.facebook.com/IndianStandards/

(BIS Facebook Official - http://bit.ly/BISFacebookOfficial)

LinkedIn: http://bit.ly/BISLinkedInOfficial

YouTube: http://bit.ly/BISYouTubeOfficial

Instagram: <https://www.instagram.com/indianstandards/>

**The Committee may please note.**

**8.5 Digitization/Fully automation of standards formulation work through standardization portal**

All the committee work including Request for Co-option, proposal for new/revision of standards, commenting on the existing standards or standards under development, all the communication with the members, including the agenda and minutes of the meeting should take place through Standardisation Portal only. Standardisation portal has provisions for both recording the date of the Sectional Committee meetings and timelines for each of the proposals for the formulation/revision of standards. The link for the standardization portal is as below:

<https://www.services.bis.gov.in/php/BIS_2.0/>

**The committee may please note.**

## **Item 9 Draft Standards/Amendments for Approval for Wide Circulation**

Presently only one Indian Standard, pertaining to MTD 08 is under development which is listed in below table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **IS No./Document No.** | **IS Title** | **Stage** |
| 1. | IS 1897 : 2008  MTD 08 (24431) | Copper plate sheet strip and foil for electrical purposes – Specifications (Third Revision) | Preliminary circulation |

**The committee may please note.**

## **Item 10 Draft Amendments/Standards for Finalization**

Currently there are no documents for printing.

**The committee may note.**

## **Item 11 R&D Projects for Establishment/Revision of Indian Standards**

**11.1** The current guidelines for R&D projects for establishments /revision of Indian Standards are given below:

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**The committee may note.**

**11.2** The ToRs which were discussed among the members of MTD 8, during a special meeting held on 09 Jan 2024 and finalized ToRs have been placed below:

1. IS 10757: 1983 - Specification for nickel silver rods and bars:



2. IS 14340 : 1996 - Brass for current carrying parts in electrical wiring accessories – Specification:



3. IS 2501 : 1995 - Solid drawn copper tubes for general engineering purposes – Specification (third revision):



4. IS 4171 : 1983 - Specification for copper rods and bars for general engineering purposes



5. **New subject (during special meeting held on 09 Jan 2024, the committee decided to discuss this ToR in the 25th TC meeting to finalize the ToR)**: ToR on Cu wire for electrical purposes placed below:



**11.2.1** Smt. Divya Pandya, M/s Rashtriya Metal Industries Limited sent proposal via email dated 11 January 2024 that, all the five documents should be redrafted, the proposal received has been placed below:



**The Committee may please deliberate and decide.**

**11.3 Research Projects to be Taken Up for Inclusion of Empirical Data and Insights**



**The committee may note.**

## **Item 13 Date and Place for the Next Meeting**

To be decided by the chairperson.

## **Item 14 Any Other Business**

Clarification requested from CMD regarding sizes and tolerances covered in IS 5493.



**[Annex-1](#Annex1)**

**(*Item* 2)**

| **Sl No.** | **Subject** | **Decision of the committee in the previous meetings** | **Action taken/Current status** |
| --- | --- | --- | --- |
|  | **Copper alloys ingots and castings (fifth revision of IS 28) [based on BS EN 1982 : 1998]**  **Document MTD/08/23708** | The committee in the 19th meeting after deliberations agreed to issues raised by MTD in the draft. The committee requested Shri Rajendra D Chaudhari of M/s Vanaz Engineers Ltd to kindly review the draft based on comments received and resubmit the revised draft in the next meeting of the sectional committee.  In 20th sectional committee meeting Shri Rajendra D Chaudhari expressed his lack of expertise in subject area, so committee advised member secretary to form a panel in consultation with chairman to review the document and submit the recommendations within two months.  The committee in its 21st meeting advised member secretary to form a panel with following composition:   1. Indoswe; 2. Saru Group; 3. Rajhans Impex Pvt. Ltd., Jamnagar; 4. ICDC as convenor; and 5. 2-3 more members from casting and ingot manufacturers can be added. The details will be provided by ICDC.   The committee in its 22nd meeting decided that organizations nominated in the panel doesn’t have expertise in the domain of ingots and castings and advised member secretary to formulate the draft standard merging IS 28, IS 292, IS 304, IS 305, IS 306, IS 318, IS 1028, IS 11109 into IS 28 in consultation with chairman.  The draft prepared by member secretary is placed below:    **23rd Meeting**  The committee in its 23rd meeting after deliberation decided to send the draft standard merging IS 28, IS 292, IS 304, IS 305, IS 306, IS 318, IS 1028, IS 11109 into IS 28 incorporating changes proposed for Wide Circulation for the period of 30 days.  Also, the committee requested the Member secretary to send the draft document via mail to the ingots and castings manufacturer for their views and comments.  **24th Meeting**  The document **MTD/08/23708** was wide circulated dated 20 October 2023 and is currently under wide circulation for 1 month.  The committee noted the information and after detailed deliberation and discussion decided to send the document for printing in case no comments are received on the wide circulated document. | The document is to be sent for printing.  **The committee may note.** |
|  | **IS 6912 : 2005 Copper and copper alloy forging stock and forgings (second revision)**  **Document MTD/08/12229** | In the 18th meeting the committee decided to send the draft document for printing as there were no comments received. But while preparing the draft document for printing following issues were observed by MTD in the draft:   1. Chemical composition of grade Cu-DHP not matching with corresponding grade in IS 191. 2. New grades along with their chemical and mechanical properties have been added in the draft revision. These grades need to be mapped to the corresponding International standards they are referred from or would otherwise require validation before being added to the standard.   The committee in its 20th meeting after deliberations agreed to issues raised by MTD in the draft. The committee requested Rajendra D Chaudhari of M/s Vanaz Engineers Ltd to kindly review the draft based on comments received and resubmit the revised draft in the next meeting of the sectional committee.  The revised draft document received from Sh. Rajendra D Chaudhari of M/s Vanaz Engineers Ltd is placed below:    The committee in its 21st meeting after deliberation decided to send the document for circulation to the members of the committee for 1 month.  As no comments were received on P-draft.  The committee in its 22nd meeting decided to send the draft document for Wide circulation for the period of 30 days.  The document was wide circulated dated 10 July 2023 with last date of comments on 09 August 2023.  The committee noted the information and comments received from Birla Copper on **clause 8.2** “**Chemical elements except copper can be determined by Instrumental method like Spectro OES, ICP, AAS…etc.**“ and were deliberated upon by the committee and after discussing comments were resolved by the committee stating that chemical testing by instrumental method is already there and decided to send the document for printing in case no other comments are received on the wide circulated document.  **24th Meeting**  The document **MTD/08/12229** was wide circulated for 1 month and no comments were received and hence the draft document was finalized and sent for printing.  The committee noted the information that the document **MTD/08/12229** was sent for printing. | The document is to be sent for printing.  **The committee may note.** |
|  | **IS 3331 : 2007 Copper and Brass Strips Foils for Radiator Cores** | In the 19th meeting of MTD 08 the committee discussed the minutes of the meeting of Panel 2 placed at **Appendix 1** The committee noted the information and requested BIS and Chairman of the committee to contact Aurubis (company) regarding the possibility and method of carrying out hardness test on very thin foils. They also requested to seek the standard being referred to for carrying out the test.  Committee also requested Shri Debdas Goswami to seek aforementioned information from International Copper Association, if available. Committee also requested to take feedback from MED (BIS) on the same. The reply received from Shri Debdas Goswami was received and is placed below:      The committee in its 20th meeting requested members secretary to again circulate the document, so that they can deliberate on the responses received from different sources and send their comments and replies to chairman.  The committee in its 21st meeting after deliberation agreed to the comments received and asked Sh. D K Jain of Agrawal Metals to submit the draft document within 2 months.    The committee in its 22nd meeting after deliberation and discussion requested Shri D K Jain to submit the working draft and advised member secretary to discuss the draft document with Shri D K Jain.  The draft document submitted by Shri D K Jain is placed below :    The committee in its 23rd meeting after deliberation and discussion decided to send the draft document for Wide Circulation for the period of 30 days.  **24th Meeting**  The document **MTD/08/23710** was Wide Circulated on 11-10-2023 for the period of 30 days and no comments were received.  The committee noted the information and after detailed deliberation and discussion decided to send the document for printing. | Following comment has been received during WC of IS 3331:    **The committee may deliberate and decide.** |
|  | **IS 410 : 1997 - Specification for cold rolled brass sheet strip and foil (Third Revision)** | Comments have been received on IS 410:1977, IS 3052:1986, IS 7814 : 2005, IS 14811: 2000 from Shri D. K. Jain of M/s Agrawal Metals.    The committee in its 20th meeting asked Shri Umang Jain to provide the list of relevant manufacturers and consumers to member secretary and member secretary in turn to form a panel in consultation with the chairman and requested panel members to submit their recommendations within two months.        The committee in its 21st meeting after deliberation decided to form panel for respective standards with composition as follows:  IS 410   1. D K Jain (Agrawal Metal) as convener 2. Gupta Metal Industries, Yamunanagar 3. Rashtriya Metal Industries Ltd., Mumbai 4. Krishna Engineering Industries   and for IS 14811, IS 3052, IS 191 and IS 7814 panel shall be formed with Agarwal Metal as convener and members can be finalized in consultation with chairman and D K Jain of Agarwal Metals.  The committee in its 22nd meeting after deliberation and discussion advised member secretary to discuss the draft documents with Shri D K Jain and then circulate the documents amongst the committee members as P-draft.  The committee noted the information and Member Secretary requested the committee to give some time to discuss the standards with Shri D K Jain to which committee agreed and asked member secretary to discuss the standards with Shri D K Jain and prepare the draft document and circulate to members before 31st October 2023.  **24th Meeting**  The working drafts of IS 410: 1997, IS 3052: 1986, IS 7814: 2005, IS 14811: 2000, IS 191: 2007 are still awaited.  The recommendations received via mail dated 13 October 2023 on IS 3052 : 1986 is placed below:    The committee noted the information and Member Secretary requested the committee to give some more time to discuss the standards with Shri D K Jain to which the committee agreed and advised the member secretary to discuss the standards with Shri D K Jain.  The committee reviewed the comments received from Shri D K Jain on **IS 3052 : 1986** and after deliberation and discussion advised the member secretary to incorporate the comments in the working draft and send the draft document to committee members, as P-circulation, for their views and comments.  The committee after deliberation and discussion decided to form a panel for the revision of **IS 191 : 2007** with the following composition:   1. Shri I Rajashekhar - *convener* 2. Shri Jayanta Ranasingh 3. Shri D. K. Jain 4. Shri Mayur Karmakar 5. Smt. Divya Pandya 6. Shri Rishabh Joshi     And requested the panel to submit the working draft. | The working draft of IS 191, prepared by Member secretary is placed below:    Comment received on IS 191 is placed below:      Draft of IS 3052 is to be sent for P Circulation.  **The committee may deliberate and decide.** |
|  | **IS 3052 : 1986 – Dimensions and tolerances for wrought copper and copper alloy sheet, strip and foil for general engineering purposes (Second Revision)** |
|  | **IS 7814 : 2005 – Phosphor bronze sheet, strip and foil - Specification (Second Revision)** |
|  | **IS 14811 : 2000 - Rolled copper plate, sheet, strip and foils for general engineering purposes -**  **Specification** |
|  | **IS 191 : 2007 Copper - Specification (Fourth Revision)** |
|  | **IS 10773 : 1995 Wrought Copper Tubes for Refrigeration and Air- Conditioning Purposes** | The committee in 20th sectional committee meeting noted the comments received on IS 10773 and after deliberation asked member secretary to form a panel in consultation with chairman and requested panel to review comments and give their recommendations for revision of the standard.  The committee in its 21st meeting noted the information and after deliberation decided to form panel with composition as follows:   1. ICDC as convener 2. ICAI 3. Metal Gems 4. L.G. Electronics 5. Mehta Tubes 6. Birla Copper Ltd.     And advised member secretary to ask interest from IMMT to co-opt in panel.  The panel composition is yet to be finalized as nominations have been received from ICAI, LG Electronics, Birla Copper Ltd. only.  The committee in its 22nd meeting after deliberation and discussion requested ICAI to nominate convenor from their organization. Other panel composition remains same as decided in previous meeting.  Panel meeting was held on 17th July 2023 and the panel expert from LG Electronics and ICA requested some time to prepare the comparative report on composition and mechanical properties requirement of material.  The committee in its 23rd meeting asked panel to formulate the draft before 31st October 2023 and advised member secretary to circulate it among the members as P- draft.  **24th Meeting**  The draft amendment **MTD/08/23676** of IS 10773: 1995 was circulated to members via mail dated 22nd September 2023 and no comments were received.  Hence, the draft amendment was sent for wide circulation for a period of 30 days with chairman approval.  Also, the preparation of a revised draft of IS 10773: 1995 is under progress with the panel.  The committee noted the information and after deliberation decided to send the amendment for printing if no comments are received on wide circulated draft amendment.  Also the committee decided to split IS 10773 into 2 parts **IS 10773 (Part 1)** for Wrought Copper Tubes for Refrigeration and Air-Conditioning Purposes- Specification Part 1 *Tubes For Equipment* and **IS 10773 (Part 2)** for Wrought Copper Tubes for Refrigeration and Air-Conditioning Purposes - Specification Part 2 *Tubes For Piping Systems* and requested member secretary to formulate the drafts. | The **Amendment 1** to **IS 10773 : 1995** is under printing.  The drafts for **IS 10773 (Part 1)** for Wrought Copper Tubes for Refrigeration and Air-Conditioning Purposes- Specification Part 1 *Tubes For Equipment* and **IS 10773 (Part 2)** for Wrought Copper Tubes for Refrigeration and Air-Conditioning Purposes - Specification Part 2 *Tubes For Piping Systems* are under preparation.  **The committee may note.** |
|  | **IS 613 : 2000 Copper rods and bars for electrical purposes - Specification (Third Revision)** | The committee in 21st sectional committee meeting after deliberation, decided to take up IS 613: 2000 Copper rods and bars for electrical purposes - Specification (Third Revision) for revision and requested Sh. Debdas Goswami to submit a revised draft document within 3 months.  The committee in its 22nd meeting after deliberation requested Shri Debdas Goswami to submit a working draft and advised member secretary to circulate the draft document amongst the committee members as P-draft.  The committee in its 23rd meeting after deliberation requested ICA, India to submit the revised draft document before 30th September 2023.  **24th Meeting**  The working draft is still awaited and the reminder was sent via mail dated 10th October 2023 and reply from Shri Mayur Karmarkar was received and is placed below:    The committee noted the information.  Also, Shri Mayur Karmarkar requested the committee to give some more time to formulate the working draft document to which committee agreed and asked Shri Mayur Karmarkar to submit the draft document before 27th December 2023. | Comments received from Shri Msyur Karmarkar is placed below: |
|  | **IS 1897 : 2008 Copper Strip For Electrical Purposes - Specification( Third Revision)** | Comments were received from Shri D K Jain on IS 1897 : 2008.    The committee in its 22nd meeting after deliberation requested member secretary to formulate a draft in consultation with Shri D K Jain.  The Member Secretary in the 23rd meeting of the committee requested the committee to give some time to discuss the standards with Shri D K Jain to which committee agreed and asked member secretary to discuss the standards with Shri D K Jain and prepare the draft document and circulate to members before 31st October 2023.  **24th Meeting**  The working draft received via mail dated 13th October 2023 from Agarwal Metals is placed below:    The committee noted the information and after detailed deliberation decided to send the draft document submitted by Shri D. K. Jain, after incorporating the changes suggested by the committee during the meeting, for P-circulation for the period of 30 days. | Comment received on IS 1897 along with ASTM B 193 as attachment has been placed below:    **The committee may deliberate and decide.** |
|  | **IS 8859: 1978 - Specification for cast copper tuyere** | The committee in its 23rd meeting decided to send the document for printing as no comments have been received.  **24th Meeting**  The committee noted the information that the document MTD/08/21602 is under printing. | The standard IS 8859 : 2024 Cast copper tuyere - Specification (First Revision) has been published.  **The committee may note.** |
|  | **IS 3168: 1981 - Specification for brass strip and foil for deep drawing** | The committee in its 23rd meeting decided to send the document for printing as no comments have been received.  **24th Meeting**  The committee noted the information that the document MTD/08/21603 is under printing. | The standard IS 3168 : 2024 Brass strip and foil for deep drawing - Specification (Second Revision) has been published.  **The committee may note.** |
|  | **IS 8362: 1977 - Specification for copper and copper alloy rolled plates for condensers and heat exchangers** | The comments received from Birla Copper on **clause 8.2** “**Chemical elements except copper can be determined by Instrumental method like Spectro OES, ICP, AAS…etc.**“ and were deliberated upon by the committee in its 23rd meeting and after discussing comments were resolved by the committee stating that chemical testing by instrumental method is already there  And decided to send the document for printing.  **24th Meeting**  The committee noted the information that The document **MTD/08/21605** was sent for printing. | The document is to be sent for printing.  **The committee may note.** |
|  | **IS 8631: 1977 - Specification for copper base alloys for marine propellers** | The committee in its 23rd meeting decided to send the document for printing as no comments have been received.  **24th Meeting**  The committee noted the information that The document **MTD/08/21608** was sent for printing. | The standard IS 8631 : 2024 Copper base alloys for marine propellers - Specification (First Revision) has been printed.  **The committee may note.** |
|  | **IS 12444 : 2020 - Copper Wire Rods for Electrical Applications — Specification (First Revision)** | The committee decided to allocate the standard to Shri Jayanta Ranasingh from Hindalco Industries Ltd. as comments were received from him before the last meeting and requested to submit the working draft before 25 September 2023.  **24th Meeting**  The working draft is still awaited and the reminder was sent via mail dated 10th October 2023.  The committee noted the information and after deliberation advised nominated members from Birla Copper Ltd. and Sterlite Copper Ltd. to provide working draft before 31st January 2023. | Comments received from **Shri Jayanta Ranasingh** for revision of the standard. |
|  | **IS 1545 : 1994 - Solid drawn copper and copper alloy tubes for condensers and heat exchangers - Specification (Third Revision)** | The committee decided to allocate these standards to Shri Rikab Mehta from Metal Gems and requested to submit the working drafts before 25 September 2023.  **24th Meeting**  The recommendations received via mail dated 19th October on IS 14810 : 2000, IS 2501 : 1995 and IS 1545 : 1994 from Shri Rikab Mehta is placed below :      The committee noted the information and after deliberation and discussion requested Shri Rikab Mehta to submit the draft documents after incorporating the suggestions. | Draft of IS 1545 received from Shri D K Mangal, M/s Mehta Tubes Ltd., is placed below: |
|  | **IS 2501 : 1995 - Solid drawn copper tubes for general engineering purposes - Specification (Third Revision)** |
|  | **IS 14810 : 2000 - Copper tubes for plumbing - Specification** |
|  | **IS 4171 : 1983 - Specification for copper rods and bars for general engineering purposes (First Revision)** |
|  | **IS 4412 : 1981 - Specification for copper wires for general engineering purposes (First Revision)** | The committee decided to allocate the standard to Shri Sandeep Vakharia from Aashumi Chemical Pvt Ltd and requested to submit the working draft before 25 September 2023.  **24th Meeting**  The working draft is still awaited and the reminder was sent via mail dated 10th October 2023 and following reply was received :      The committee noted the information and after deliberation asked Sh. Sandeep Vakharia to provide the comments in a clausewise manner along with reference/sources for technical changes suggested. | Comment received on IS 4412 is placed below:    The draft for revision of IS 4412 along with suggestions received from Dr Sandeep Vakharia, M/s Aashumi Chemicals Pvt Ltd., is placed below:      These comments will be discussed in the next meeting.  **The committee may deliberate and decide.** |

**[Annex-2](#Annex2)**

**(*Item* 3.5)**

| **Sl**  **No.** | **Organization** | **Representative**  **Principal/Alternate** | **Meetings Attended** | | | **Attendance in Last Three Meetings** |
| --- | --- | --- | --- | --- | --- | --- |
| **22nd** | **23rd** | **24th** |
|  | Indian Copper Development Centre, Kolkata | Dr. D. De Sarkar, ***Chairman***  Shri Indrajit Mukherjee (Alternate) | Y | Y | Y | 3/3 |
|  | Agrawal Metal Works Pvt. Ltd., Rewari | Shri D.K. Jain  Shri Umang Jain (Alternate) | Y | Y | Y | 3/3 |
|  | Bharat Heavy Electricals Ltd.,  Bhopal | Shri Sudhakar A N | N | N | Y | 1/3 |
|  | [Birla Copper Limited, Mumbai](javascript:;) | Shri Chintamani Kulkarni  Shri Anil Kumar Singh (Alternate) | Y | Y | N | 2/3 |
|  | Directorate General Of Quality Assurance, Ministry Of Defence, Ichapur | Shri Bikas Mandal  Shri Rupesh Banait (Alternate) | N | Y | N | 1/3 |
|  | Eastern Copper Manufacturing Co. Pvt Ltd., Kolkata | Shri Ravi Choudhary | Y | Y | N | 2/3 |
|  | Hindustan Copper Ltd., Kolkata | Shri J. Bhattacharjee  Shri Awadesh Kumar (Alternate) | Y | N | N | 1/3 |
|  | Indian Electrical And Electronics Manufacturers Association, New Delhi | Chairman  Shri Rishabh Joshi (Alternate) | N | N | Y | 1/3 |
|  | Indoswe Engineers Pvt Ltd., Pune | Shri U. K. Jatia  Shri S. N. Bansode (Alternate) | N | Y | Y | 2/3 |
|  | International Copper Association India, Mumbai | Shri Mayur Karmakar  Shri Jyotish Pande (Alternate) | Y | Y | Y | 3/3 |
|  | Material Recycling Association of India (MRAI), Mumbai | Shri Jinesh Shah  Shri Satish Kohli (Alternate)  Shri Mayank Pareek (Alternate) | - | - | Y | 1/1 |
|  | Metal Gems, Mumbai | Shri Rikab Mehta  Shri D. K. Mangal (Alternate) | Y | Y | Y | 3/3 |
|  | RR Kabel Limited, Silvassa | Shri Ronak Bhatt  Shri Ranadip Bhaumik (Alternate) | - | - | N | 0/1 |
|  | Rashtriya Metal Industries Limited, Mumbai | Smt. Divya Pandya | Y | Y | Y | 3/3 |
|  | Saru Copper Alloy Semis Pvt Ltd., Meerut | Shri Sanjeev Jain  Shri Nitish Jain (Alternate) | N | Y | Y | 2/3 |
|  | Sterlite Industries India Ltd., Silvasa | Shri I. Rajasekhar  Shri Shanmugavel Prabhahar (Alternate) | Y | N | Y | 2/3 |
|  | Vanaz Engineers Pvt Ltd., Pune | Shri Rajendra D. Chaudhari  Shri J. S. Dhumal (Alternate) | Y | Y | Y | 3/3 |

**[Annex-3](#Annex3)**

**(*Item* 6)**

| **SI No.** | **IS No.** | **IS Title** |
| --- | --- | --- |
| 1 | IS 1028 : 1987 | Specification for silicon bronze ingots and castings (Second Revision) |
| 2 | IS 10569 : 2005 | Aluminium bronze rods, bars and sections - Specification (First Revision) |
| 3 | IS 10709 : 1983 | Specification for brass wires for fourdrinier cloth |
| 4 | IS 10710 : 1983 | Specification for phosphor bronze wires used for fourdrinier cloth |
| 5 | IS 10742 : 1983 | Specification for cast gun metal rods and bars |
| 6 | IS 10757 : 1983 | Specification for nickel silver rods and bars |
| 7 | IS 10773 : 1995 | Wrought copper tubes for refrigeration and air - Conditioning purposes - Specification (First Revision) |
| 8 | IS 11109 : 1984 | Specification for silicon brass ingots and castings |
| 9 | IS 12228 : 1987 | Method for scale adhesion test for oxygen - Free copper |
| 10 | IS 12443 : 1988 | Specification for rolled brass plates for general engineering purposes |
| 11 | IS 12444 : 2020 | Copper Wire Rods for Electrical Applications - Specification ( First Revision ) |
| 12 | IS 12558 : 1988 | Recommended shapes, sizes and mass of copper and copper alloy ingots for remelting purposes |
| 13 | IS 1264 : 1997 | Brass gravity die castings - Specification (Fourth Revision) |
| 14 | IS 1408 : 1968 | Recommended procedure for inspection of copper - Base alloy sand castings (First Revision) |
| 15 | IS 14340 : 1996 | Brass for current carrying parts in electrical wiring accessories - Specification |
| 16 | IS 1458 : 1965 | Railway Bronze Ingots And Casting (First Revision) |
| 17 | IS 14810 : 2000 | Copper tubes for plumbing - Specification |
| 18 | IS 14811 : 2000 | Rolled copper plate, sheet, strip and foils for general engineering purposes - Specification |
| 19 | IS 1545 : 1994 | Solid drawn copper and copper alloy tubes for condensers and heat exchangers - Specification (Third Revision) |
| 20 | IS 16872 : 2019 | Copper Alloys - Ammonia Test for Stress Corrosion Resistance |
| 21 | IS 1897 : 2008 | Copper strip for electrical purposes - Specification (Third Revision) |
| 22 | IS 191 : 2007 | Copper - Specification (Fourth Revision) |
| 23 | IS 2283 : 2000 | Nickel silver sheet, strip and foil - Specification (Second Revision) |
| 24 | IS 2305 : 1988 | Method for mercurous nitrate test for copper and copper alloys (First Revision) |
| 25 | IS 2376 : 1963 | Colour code for the identification of copper and copper alloys |
| 26 | IS 2378 : 1974 | Code for designation of copper and copper alloys (First Revision) |
| 27 | IS 2451 : 1994 | Copper alloys - Nickel silver - Ingots and castings - Specification (First Revision) |
| 28 | IS 2501 : 1995 | Solid drawn copper tubesfor general engineering purposes - Specification (Third Revision) |
| 29 | IS 2603 : 1983 | Specification for copper anodes for electroplating (First Revision) |
| 30 | IS 2704 : 1983 | Specification for brass wires for cold - Headed and machined parts (First Revision) |
| 31 | IS 2768 : 1982 | Specification for copper alloy strip for bullet envelope (First Revision) |
| 32 | IS 28 : 1985 | Phosphor bronze ingots and castings |
| 33 | IS 2826 : 1986 | Dimensions and tolerances for copper and copper alloy rods and bars for general engineering purposes (Third Revision) |
| 34 | IS 288 : 1981 | Specification for arsenical copper rods for boiler stay bolts and rivets (Fourth Revision) |
| 35 | IS 291 : 1989 | Naval brass rods and sections for machining purposes - Specification (Third Revision) |
| 36 | IS 292 : 1983 | Specification for leaded brass ingots and casting (Second Revision) |
| 37 | IS 304 : 1981 | Specification for high tensile brass ingots and castings (Second Revision) |
| 38 | IS 305 : 1981 | Specification for aluminium bronze ingots and castings (Second Revision) |
| 39 | IS 3051 : 1988 | Dimensions and tolerances for wrought copper and copper alloys plate (First Revision) |
| 40 | IS 3052 : 1986 | Dimensions and tolerances for wrought copper and copper alloy sheet, strip and foil for general engineering purposes (Second Revision) |
| 41 | IS 306 : 1983 | Specification for tin bronze ingots and castings (Third Revision) |
| 42 | IS 3091 : 1999 | Aluminium bronze ingots and castings for overhead fittings in electric traction - Specification (First Revision) |
| 43 | IS 3167 : 1982 | Specification for cap copper alloy strip (First Revision) |
| 44 | IS 3168 : 2024 | Brass Strip and Foil for Deep Drawing - Specification (Second Revision) |
| 45 | IS 318 : 1981 | Specification for leaded tin bronze ingots and castings (Second Revision) |
| 46 | IS 319 : 2007 | Free cutting brass bars, rods and section - Specification (Fifth Revision) |
| 47 | IS 320 : 1980 | Specification for high tensile brass rods and sections (Other Than Forging Stock) (Second Revision) |
| 48 | IS 3288 (Part 1) : 1986 | Glossary of terms relating to copper and copper alloys: Part 1 materials (Third Revision) |
| 49 | IS 3288 (Part 2) : 1986 | Glossary of terms relating to copper and copper alloys: Part 2 unwrought and cast form |
| 50 | IS 3288 (Part 3) : 1986 | Glossary of terms relating to copper and copper alloys: Part 3 wrought forms |
| 51 | IS 3288 (Part 4) : 1986 | Glossary of terms relating to copper and copper alloys: Part 4 processing |
| 52 | IS 3288 (Part 5) : 1986 | Glossary of terms relating to copper and copper alloys: Part 5 heat treatment |
| 53 | IS 3288 (Part 6) : 1986 | Glossary of terms relating to copper and copper alloys: Part 6 finishes |
| 54 | IS 3288 (Part 7) : 1986 | Glossary of terms relating to copper and copper alloys: Part 7 dimensional surface and structural characteristics |
| 55 | IS 3288 (Part 8) : 1986 | Glossary of terms relating to copper and copper alloys: Part 8 packing |
| 56 | IS 3331 : 2007 | Copper and brass strips/foils for radiator cores - Specification (Second Revision) |
| 57 | IS 407 : 1981 | Specification for brass tubes for general purposes (Third Revision) |
| 58 | IS 4076 : 1983 | Specification for brass wires for springs and other special purposes (First Revision) |
| 59 | IS 410 : 1977 | Specification for cold rolled brass sheet, strip and foil (Third Revision) |
| 60 | IS 4131 : 1967 | Specification for nickel - Copper alloy castings |
| 61 | IS 4170 : 1967 | Specification for brass rods for general engineering purposes |
| 62 | IS 4171 : 1983 | Specification for copper rods and bars for general engineering purposes (First Revision) |
| 63 | IS 422 : 1981 | Specification for brass sheet and strip for the manufacture of utensils (Second Revision) |
| 64 | IS 4412 : 1981 | Specification for copper wires for general engineering purposes (First Revision) |
| 65 | IS 4413 : 1981 | Specification for brass wires for general engineering purposes (First Revision) |
| 66 | IS 4519 : 1977 | Dimensions for copper commutator bars (First Revision) |
| 67 | IS 5053 : 1969 | Dimensions for wrought copper and copper alloy rods for fasteners |
| 68 | IS 531 : 1981 | Specification for leaded brass strip for instrument parts (Second Revision) |
| 69 | IS 5493 : 1981 | Dimensions for wrought copper and copper alloy tubes (First Revision) |
| 70 | IS 5743 : 1991 | Copper master alloys (First Revision) |
| 71 | IS 5744 : 1991 | Copper alloy screwed ferrules for condenser, heater and cooler tubes - Specification (First Revision) |
| 72 | IS 5885 : 1977 | Specification for copper commutator bar (First Revision) |
| 73 | IS 613 : 2000 | Copper rods and bars for electrical purposes - Specification (Third Revision) |
| 74 | IS 6912 : 2005 | Copper and copper alloys forging stock and forging - Specification (Second Revision) |
| 75 | IS 7608 : 1987 | Specification for phosphor bronze wire for general engineering purposes (First Revision) |
| 76 | IS 7811 : 2019 | Phosphor bronze rods and bars (Second Revision) |
| 77 | IS 7814 : 2005 | Phosphor bronze sheet, strip and foil - Specification (Second Revision) |
| 78 | IS 8328 : 2007 | Free cutting copper bars, rods and sections - Specification (First Revision) |
| 79 | IS 8362 : 1977 | Specification for copper and copper alloy rolled plates for condensers and heat exchangers |
| 80 | IS 8364 : 1989 | Free cuttxng brass wire specification (First Revision) |
| 81 | IS 8365 : 1991 | Copper alloys for spot and seam resistance welding electrodes (First Revision) |
| 82 | IS 8631 : 2024 | Copper Base Alloys for Marine Propellers - Specification (First Revision) |
| 83 | IS 8859 : 2024 | Cast Copper Tuyere - Specification (First Revision) |
| 84 | IS 9682 : 1980 | Recommended procedure for inspection of cast copper tuyeres |
| 85 | IS 9713 : 1983 | Specification for hot - Rolled electrolytic copper wire rods for electrical conductors (First Revision) |
| 86 | IS 9805 : 1981 | Specification for high conductivity copper castings |
| 87 | IS 9861 : 1981 | Dimensions for wrought copper and copper alloy wires for general engineering purposes |

**[Annex-4](#Annex4)**

**(*Item* 7.1)**

**PROFORMA FOR PROPOSING NEW SUBJECTS FOR NATIONAL STANDARDIZATION**

1. Proposer ……………………………………………………………………………………………..…………………………………………………

(Name & Address)

2. Title …………………………………………………………………………………………………….…………………..……………………………….

(Indicate whether the standard required is for product specification/methods of test/code of practice and define the subject in brief)

3. Scope …………………………………………………………………………………………………..…………………..………………….. (Define the limits to be considered)

4. Purpose and Justification …………………………………………………………………………………………………………………………

5. Likely users of standard and their inputs ………………………………………………………………………………………………….

6. Any related standard/series of standard/system standard required to make this subject standard complete…………………………………………………………………………………….…………………………………………………………………

7. When the final Standard would be required (any time limit) …………………………………………………………………..

8. Any specific bottlenecks without this standard ……………………………………………………...…………………………………

9. Bearing with Govt. legislation regulation, etc. …………………………………………………….…………………………………

10. Name and address of manufacturers/implementing industries/purchasing organizations/component supplier/raw material supplier ………………………………………….…………………………………………………………………………..

11. Availability of test facilities ………………………………………………………………………….……………………………………………

12. Whether related to variety reduction, export, health, safety consumer protection, mass consumption, energy conservation, technology transfer, technology upgradation, protection of environment & other national priorities. …………………………………………………………………………………………………………………………………………

13. Relevant supportive documents/standards ………………………………………………………….…………………………………

14. R&D work done in India …………………………………………………………………………..……………………………………………..

15. Status of the industry in the country ……………………………………………………………….……………………………………..

16. Any foreign collaboration (give details) ………………………………………………………………………………………………….

17. Liaison with any Organisation(s) …………………………………………………………………..………………………………………..

18. Preparatory work:

a) whether draft attached …………………………………………………………………………………………………………………..

b) whether outline attached and draft can be prepared ……………………………………….………………………………

19. Whether this project can be funded by your organization or can it be sponsored by industry/associations/professional bodies/ministry? If yes, to what extent?

………………………………………………………………………………………………………..…………………………………………………..

20. Whether your Organization would be interested to opt for BIS Standard Mark once the standard is published? ………………………………………………………………………….…………………………………………………………………………

Date ………….. Signature

NOTES:

1. It is desirable that information is provided by the proposer for all items of the proforma in any case information against item 1 to 5 must be provided.
2. Write ‘NA’ wherever not applicable.
3. Add separate sheet to elaborate.