BUREAU OF INDIAN STANDARDS
(Metallurgical Engineering Department)

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Our ref: **MTD09/A/2.21**	**Dated:** **XX-XX-2023**

Subject:- 21st Meeting of Ores And Feed Stock For Non-Ferrous Industry, Their Metals/ Alloys And Products (Excluding Aluminum And Copper) Sectional Committee, MTD 9.

To

Ores And Feed Stock For Non-Ferrous Industry, Their Metals/ Alloys And Products (Excluding Aluminum And Copper) Sectional Committee, MTD 9.

Dear Sir,

Please find enclosed the minutes of the **Technical Committee Meeting, MTD 09** held on **26th June 2023** via **online mode through WebEx.** The minutes have been approved by Dr. Abhilash, Interim Chairperson, MTD 09.

Last date for comments is **XX-XX-2023.**

Comments if any, confined to the accuracy of recording, may please be mailed to the undersigned. If no reply is received by this date, we may be permitted to presume your approval to the minutes as recorded.

Thanking you,

Yours faithfully

(Saaqib Raahi)
Assistant Director/Scientist`B'
Member Secretary, MTD-09
E-mail: mtd9@bis.gov.in
saaqib@bis.gov.in

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BUREAU OF INDIAN STANDARDS

DRAFT MINUTES

21ST MEETING OF ORES AND FEED STOCK FOR NON-FERROUS INDUSTRY, THEIR METALS/ ALLOYS AND PRODUCTS (EXCLUDING ALUMINUM AND COPPER) SECTIONAL COMMITTEE, MTD 9

MEETING DATE: 26th June 2023, (Monday)

VENUE: Webex, VC Meeting

Meeting Chairperson: Shri P Meena
Meeting Interim Chairperson: Dr Abhilash **Member Secretary:** Mr. Saaqib Raahi

Members Present:

SL No.	Organization	Member	Member type	Email	Phone
1.	CSIR - National Metallurgical Laboratory, Jamshedpur	Dr. Abhilash	Interim Chairperson (21st Meeting) & Principal Member	ABHILASH@NMLINDIA.ORG	9431962767
2.	Arya Alloys Private Limited, New Delhi	Amrendra K Jha	Principal Member	purchase@aryaalloys.com	9318431011
3.	Bhabha Atomic Research Centre, Mumbai	Shri Rajak Syed	Young Professional	rajak@barc.gov.in	
4.	Bhabha Atomic Research Centre, Mumbai	Dr. Bhaskar Paul	Alternate Member	bhaskarpaul.barc22@gmail.com	
5.	CSIR - Central Electrochemical Research Institute, Karaikudi	Dr. Jayakumar	Alternate Member	jayam@cecri.res.in	9445835070
6.	CSIR - National Metallurgical Laboratory, Jamshedpur	Dr. Pratima Meshram	Alternate Member	PRATIMA@NMLINDIA.ORG	
7.	Directorate General of Quality Assurance, Ministry of Defence, Ichapur	Shri A. K. Verma	Principal Member	cqametichapur-dgqa@nic.in	9949416181
8.	Directorate General of Quality Assurance, Ministry of Defence, Ichapur	Shri Kartikey Sharma	Alternate Member	cqametichapur-dgqa@nic.in	9424347398

9.	Eveready Industries India Limited, Kolkata	Shri G. Prahalathan	Principal Member	G.PRAHALATHAN@EVEREADY.CO.IN	9560340656
10.	Hindustan Zinc Limited, Kolkata	Shri M. Nambi	Principal Member	M.NAMBI@VEDANTA.CO.IN	8003093592
11.	Indian Lead Zinc Development Association, New Delhi	Shri K. Sridhar	Principal Member	ILZDA.INFO@GMAIL.COM	9873058907
12.	Indian Rare Earths Limited, Mumbai	Dr B. R. Mishra	Alternate Member	brmishra@irel.co.in	9437076734
13.	Mishra Dhatu Nigam Limited, Hyderabad	Shri Vamsi Krishna Parimi	Young Professional	parimi.vamsikrishna@midhani-india.in	9493152831
14.	National Mineral Development Corporation, Hyderabad	Shri G.Venkateswara Rao	Principal Member	gvrao@nmdc.co.in	9490759605
15.	National Test House, Kolkata	Shri Suhas D. Pingale	Alternate Member	suhas.pingle@nic.in	8425955446
16.	Nile Limited, Hyderabad	Shri KHK Srinivas	Principal Member	khk@nilelimited.com	9866529911
17.	Nuclear Fuel Complex, Hyderabad	Shri Vijay Kaushik	Principal Member	kaushik@nfc.gov.in	
18.	Power Grid Corporation of India, Gurugram	Dr. Satish Kumar	Alternate Member	satishshekhawat@powergrid.in	9599106825
19.	Southern Metals & Alloys Private Limited, Mumbai	Shri Vivek Noronha	Principal Member	info@southernmetals.in	9821020276
20.	The Tinplate Company of India Limited, Jamshedpur	Dr. Sourajyoti Dey	Principal Member	sourajyoti.dey@tatatinplate.com	9431752105
21.	The Tinplate Company of India Limited, Jamshedpur	Shri Subrata Sadhu	Young Professional	subrata.sadhu@tatatinplate.com	9905904410

Invitee:

Sl No.	Name of the Organization	Name of the Member	Email ID of the Member
1	WDRA (Warehousing Development and Regulatory Authority)	Shri Mukesh Sinha	mukeshsinha@hotmail.com

ITEM 0 GENERAL

As it was intimated by DGQA vide email dated 12 May 2023 and 04 June 2023, that due to the superannuation of Shri P. Meena on 30th June 2023 due he won't be able to attend future programs of BIS, the members of the MTD 09 Technical committee unanimously nominated Dr. Abhilash of M/s NML as the Interim Chairperson of the Committee for this 21st Technical committee meeting.

0.1 Inaugural address by Head of Metallurgical Engineering Department

Head MTD, Shri Sanjiv Maini welcomed all the members and Chairperson Dr to this 21th meeting of MTD 09 Technical Committee, Sir requested the committee to conduct the meetings as far as possible, once in each quarter so that we can have at least 3 meetings in a year to easily review all the pre 2000 standards in next 3 years. Also, sir mentioned about increasing the outreach of BIS standard by conducting atleast one of the meeting via physical mode in any technical institutes like NITs, IITs, R&D Institutes where half day meeting and half day seminar regarding basics and latest development in the subject dealt by this committee will be discussed so that younger generation can also participate and comes to know how the standards are being formulated and functions of BIS. Further, sir has requested the committee to make annual plan for revising the standard which is under revision that is planning and fixing the timeline of P draft, WC of draft and finalizing of the revised draft .Sir also mentioned that all the standards which are taken up for revision should be taken as action research project which should be a kind of literature survey or imperial data survey or small R&D project also the expenses incurred of which is fully funded by BIS. Sir mentioned that if any member wants to propose any standard to ISO, BIS will take care of all the expenses incur. Sir requested the committee to take necessary decision on the withdrawal of the organizations not actively participate in the committee meeting.

0.2 Opening remarks by the Chairman

Dr Abhilash, Interim Chairperson of the meeting, MTD-9 welcomed the members of the Committee to the 20th Meeting of Ores and Feed Stock for Non-Ferrous Industry, their Metals/ Alloys and Products (Excluding Aluminum and Copper) Sectional Committee, MTD09. During his address, he thanked HEAD MTD Shri Sanjiv Maini sir and enlightened the point raised by him about increasing the frequency of meeting so that a greater number of issues can be addressed. Further he requested all the members to take active participation in the activities of the Committee by contributing their experience and knowledge in preparing the Indian Standards that are at par with the International Standards for the benefit of all the stakeholders of the standards of the Committee. Further sir also requested members about making the plan of the date of P Draft, WC and finalizing of the revised draft of the standard under revision which should be taken as a research project. Sir, also requested the members to actively participate in the ISO meetings so that the ISO standard so formulated should have content as per our requirement.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 Since, there were no comments received on the minutes of 20th Meeting of Ores and Feed Stock for Non-Ferrous Industry, their Metals/ Alloys and Products (Excluding Aluminum and Copper) Sectional Committee, MTD 9 held on 16th September 2022 via WebEx , the Committee confirmed the minutes circulated vide letter No. MTD-9/A-2.20 dated 20-12-2022.

Item 2 SCOPE AND COMPOSITION OF SECTIONAL COMMITTEE, MTD 9

2.1 The committee has noted the information given in Item **2.1** to **2.4** of the Agenda of the meeting.

2.2 The Committee has noted the composition of MTD-9 given at Item **2.5** and **Annexure-1** of the Agenda of the meeting and has reviewed the same. The committee requested member secretary to send the letters requesting the organizations which have been continuously absent in last three meetings for their active participation. In case no reply is received, the decision regarding the withdrawal of these organization will be discussed in the next committee meeting and replace them with new alternate organizations.
The committee further decided to Co-opt M/s Amara Raja Batteries, Andhra Pradesh and M/s Pheonix Industries(MSME) into the MTD 09 Technical Committee and requested Shri K. Sridhar of M/s ILZDA to give the contact details of the competent authority for getting the nominations to the members secretary.

2.3 The committee while deliberating on the item no **2.6** on panel composition decided as follows:

A. PANEL-1 FOR LEAD AND LEAD ALLOYS (BOTH PRIMARY AND SECONDARY)

1. **Shri K Sridhar of M/s ILZDA (Panel convener)**
2. **Shri KHK Srinivas, of M/s NILE lead Ltd.**
3. **Dr. Sagar Sengupta, of M/s Exide Industries Ltd**
4. **Shri Amrendra Jha of M/s Arya Alloys**
5. **Shri M. Nambi of M/s HZL**
6. **Gravitas India Limited, Jaipur(the details of the member will be given by Shri K Sridhar)**

The committee decided to induct Jain Metal Group, SILMA (South Indian Lead Manufacturers Association), HMS Metal Corporation, Pilot Industries, Corslite battery Company and MCX into the panel-1. The committee requested Shri K Sridhar Ji to provide the contact details of the relevant person to be contacted from these Industries to the member secretary to get the nominations. The committee further requested the other members of the panel to suggest users of lead and lead alloys to induct them into the panel in order to have a diverse view from the user side also.

Commented [H1]: Write their locations also

B. PANEL-2 FOR ZINC AND ZINC ALLOY (BOTH PRIMARY AND SECONDARY) INGOTS AND THEIR PRODUCTS (EXCLUDING DIE CASTINGS ALLOY INGOTS AND DIE CASTINGS)

1. **Shri M Nambi of M/s HZL (Panel Convener) ,**
2. **Dr Rahul Sharma of M/s IZA and**
3. **Shri K Sridhar of M/s ILZDA**
4. **Shri Vivek Noronha, of M/s Southern Metals**
5. **Shri Neeraj Kedia of M/s CHAKRADHAR CHEMICALS PVT LTD, Muzaffarnagar (UP)**
6. **Shri Anirudh Jhunjhunwala of M/s J G CHEMICALS PVT LTD, Kolkata,**
7. **Shri Vishal Kothari(Principal member) and Shri Nilesh Patel (Alternate member) of M/s Khosla Engineering.**
8. **Shri Satish Tailor of M/s Metallizing equipment. Co. pvt. Ltd.**

9. Shri Randhir Rathaur(principal member) and Dr Rahul Goyal (Alternate member)M/s Madhav KRG Group India.

The committee decided to induct the members from Sl No. 8 to Sl No. 9 in to the panel who were invited as an invitee in the panel meetings and further decided to Merge Panel 2 and Panel 4 under a single Panel with a scope dealing with all the aspects of Zinc and Zinc alloys (both primary and secondary) and their products (excluding the die casting ally ingots and die castings).

C. PANEL-3 FOR DIE CASTINGS

1. **Dr Rahul Sharma of M/s IZA(Panel Convener) and**
2. **Shri K Sridhar of M/s ILZDA**
3. **Shri Sandeep Tandon of M/s DST Industries Ltd, Haryana.**
4. **Shri M Nambi of M/s HZL**

The committee while deliberating on the composition of Panel 3 opined that the view of the small manufacturers and the user industry should be there and requested Shri M. Nambi of M/s HZL, Udaipur & Shri K Sridhar of M/s ILZDA to suggest the manufacturer of alloy ingots and die castings and user organizations/Industries relevant to die castings and communicate the details of the relevant persons from these industries to be contacted to the member secretary in order get the nominations and getting them on board in the panel meetings.

D. PANEL-5 FOR REVISION OF IS 11900 & IS 13351

1. **Mr. Tapan Bandyopadhyay of M/s Surya Roshni, Madhyapradesh**
2. **Mr. Nandan Pandya from M/s Signify Innovations India Limited**
3. **Smt. Ashmita,MIDHANI**
4. **Dr. Abhilash (Convener), NML**

The committee decided to continue with the existing nominations in case of Panel 5 and broadened its scope to cover the revision of IS 13351 as the subject is also related to the tungsten wires and panel has already given recommendations for revision of IS 13351.

2.3.1 The committee while deliberating over the representation of solid solder wire and Flux cored solder wire manufacturer**s requested Shri Vivek Noronha Jee of** M/s Southern Metals and **Shri Vishal Kothari Jee** of M/s Khosla Engineering to provide the details of the manufacturers and users to induct them into the new panel for solders for revising IS 1921 and IS 11516.

2.4 The committee noted the information given in Item **2.7** and **2.8** of the agenda and after detailed deliberations decided as follows with respect to the organizations co-opted in previous meetings and

Sl. No.	Name of the Organization/ personal capacity	Decision of the committee

1	Gravita India Ltd, Jaipur	The committee requested **Shri K Sridhar** to give the contact details of the relevant person to be contacted to the member secretary in order to get the nominations from the organization.
2	Rubamin Private Limited, Vadodara	----------DO----------
3	Hindustan Tin Works Ltd., New Delhi	The committee requested **Shri Subrata Sadhu** give the contact details of the relevant person to be contacted to the member secretary in order to get the nominations from the organization.
4	M/s Surya Roshni Limited (Steel Pipes Division),	The committee requested **Shri M Nambi** to give the contact details of the relevant person to be contacted to the member secretary in order to get the nominations from the organization.
5	DMRL, Hyderabad.	The committee requested **Dr. Bhaskar Paul and DR ABHILASH** to give the contact details of the member associated.
6	M/s Heavy Alloy Penetrator Project (Ordnance Factory Board), Tiruchirappalli	----------DO----------
7	Multi Commodity Exchange , Mumbai India	The committee after deliberation decided to induct them into the **panel 1 and panel 2 rather** than in the committee and decided to withdraw their name.
8	M/s Minda Corporation Ltd	The committee decided to withdraw them from the committee .
9	M/s R.S Infra Projects Pvt Ltd ALTER	The committee decided to withdraw them from the committee and also requested Shri M Nambi & Shri K Sridhar to suggest alternate galvanizers to onboard them into the technical committee.
10	National High way Authority of India Limited	The committee decided to withdraw them from the committee.
11	M/s Centre for Military Airworthiness and Certification (CEMILAC), Ministry of Defence, Bangalore	The committee decided to withdraw them from the committee.
12	AERB, Mumbai.	The committee decided to withdraw them from the committee.

13	M/s Hindustan Aeronautical Limited, Bengaluru.	The committee decided to withdraw them from the committee.

2.5 The committee noted the information given in Item **2.9** of the agenda and after detailed deliberations requested the member secretary to send the letters again requesting them **either to participate actively or to send fresh nominations**. In case no reply is received, the decision regarding the withdrawal of these organization will be discussed in the next committee meeting.

Sl. No	Name of the Organization
1.	RDSO (M & C Directorate), Lucknow
2.	Ministry of Mines, New Delhi
3.	Bharat Electronics Ltd, Bangalore

2.6 The committee after detailed deliberation on the

Item 3 ACTION TAKEN REPORT

3.1 The committee considered the summary of Actions taken as given in the agenda and decided as follows:

Sl. No.	Subject	Decision of the Committee during previous meetings	Actions taken	Decision of the committee during this meeting
1.	**Lead and Lead Alloy Wire – Specification (New Specification)**	The committee after detailed deliberation requested Shri Arun Gupta of M/s Saru Smelting to submit the revised draft latest by 31st December 2022 and advised the member secretary that on receipt of the working draft, it should be circulated among the committee members for 3 weeks' time.	The draft is awaited from Shri Arun Gupta of M/s Saru Smelting. It is being proposed to drop the subject since it is going on from a long time in the committee.	The committee after deliberation decided to drop this document, as the proposer himself is no longer interested in contributing further for the formulation of the standard.
2.	**New Standard on lead free alloy (High temperature alloy) solder**	The committee noted the information given in Item 3 and Sl No. 2 of the agenda and requested Shri Arun Gupta of M/s Saru Smelting to submit the revised draft latest by 31st December 2022 and advised the member secretary that on receipt of the working draft, it would be circulated among the committee members for 3 weeks' time.	The draft is awaited from Shri Arun Gupta of M/s Saru Smelting. It is being proposed to drop the subject since it is going on from a long time in the committee.	----------DO----------
3.	**IS 713 : 1981 Specification for zinc base alloy ingots for die casting (Second Revision)**	The committee in its 19th meeting requested Shri M. Nambi of M/s HZL to review the standard and submit the review report to the committee within 1 month along with the draft standard (in case revision is being proposed) to the committee. On receipt of the recommendation,, the same	**Combined Panel meeting of Panel2 and Panel 4:** The panel2 and Panel 4 in its 1st combined meeting of MTD Panel 2 and Panel 4 held on 20th March 2023, after detailed deliberation recommended to	The committee after deliberation requested the Panel 3 (Shi Sandeep Tandon, Director, DST Tech Private Limited) to submit the both the

		has to be circulated to the committee members for 3 Weeks' time for their views/comments Shri M. Nambi of M/s HZL was requested vide multiple emails to submit the report. However recommendations are awaited. It is to inform to the committee that the following International standard exist on the subject matter: ISO 301 BSEN 1774 GB/T 8738 JIS H 2201 ASTM B240 All of these standard does not specify not only die casting but for general Foundry purposed. For instance say ISO 301, it specifies the designations, chemical compositions, marking and other requirements for zinc alloys, in ingots (or liquid form), produced for foundry purposes. Another example is ASTM B240-17 , Standard Specification For Zinc And Zinc-Aluminum (ZA) Alloys In Ingot Form For Foundry And Die Castings The committee in its previous meeting requested the panel-2 for Primary Zinc & Zinc Alloys consisting of Shri M Nambi (Panel Convener) ,Dr Rahul Sharma and Shri K Sridhar to review the standard and also take into consideration the information shared by BIS Secretariat and submit the recommendations to the committee till 31st December 2022. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received, the same would be sent for Wide circulation for a period of one month	adopt ISO 301 which specifies for all zinc alloy ingots general Foundry purposes and not only for die castings as in the case of IS 713. The Panels further recommended to adopt ISO 20081 sampling of zinc and zinc alloys which is indispensable reference in the standard ISO 301. The minutes of the combined panel meeting is given below: 10098_06042023172414_0.docx However, **the panel 3 on die casting** during its **1st meeting held on 8th May 2023**, recommended to modify the ISO 301 and ISO 15201 and while keeping the grades as it is as of ISO and further it was also recommended to incorporate (HF)Zinc-Aluminum Alloy alloys as an informative Annex with its required chemical composition and properties with a note mentioning that "these alloys does not form an integrate part of the standard and these alloys are not much widely used and currently under research. . The grades given and the properties defined are informative in nature which will later form the part of standard when its considerable commercial use and research is established etc. The panel will submit the draft before 26-june-2023 and will be further discussed in the next panel meeting. **3rd Panel meeting of Panel 2:** The panel 2 in its 3rd meeting held on 13 June 2023, after detailed deliberation on the recommendations of Panel-3 requested to MS that on receipt of the drafts from panel 3, a combined panel meeting of panel 2, and panel 3 may be held to finalize the IS 713 and IS 742 for circulation among the committee members.	revised drafts of IS 713 and IS 742 by modifying ISO 301 and ISO 15201 respectively to Member Secretary within 1 months' time period. .Also the committee requested Shri M Nambi of M/s HZL & Shri K. Sridhar to suggest members related (MANUFACTURERS OF DIE CATING ALLOY INGOTS AND DIE CASTINGS AND USERS OF DIE CASTINGS) to die castings to get them onboard in the panel to also have their point of view in the revision of this standard.. The drafts so finalized in the panel meeting shall be sent for WC for a period of one month. In case no comments received/comments received are editorial in nature send it for printing with the permission of Interim Chairperson MTD 09.

			MINUTES 2ND PANEL MEETING PAN	
4.	**IS 742 : 1981** **Specification for zinc base alloy die castings (Second Revision)**	The committee in its previous meeting after detailed deliberations decided to constitute the panel-3 consisting of : a) DST Industries (Details of point of contact to be given by Dr. Rahul Sharma) b) Shri M. Nambi c) Dr. Rahul Sharma (Panel Convener) The committee requested the panel to review the standard and submit their recommendations/revised draft to the committee till 31st December 2022.	**1st Panel meeting of Panel-3:** • The panel3 for die casting in its 1st meeting held on 8th May 2023, after detailed deliberation recommended to include the different grades of Zinc alloys which are currently not present in 713 and IS 742 from ISO 301 and ISO 15201 respectively or modify the ISO as per our requirements. Also it was recommended to incorporate (HF) Zinc-Aluminum Alloy alloys as an informative Annex with its required chemical composition and properties with a note mentioning that "these alloys does not form an integrate part of the standard and these alloys are not much widely used and currently under research. The grades given and the properties defined are informative in nature which will later form the part of standard when its considerable commercial use and research is established etc".The draft so formulated shall be discussed further in the next panel meeting. The minutes of the panel meeting are enclosed below: 10306_15052023173128_0.docx • Also it is recommended to include more members in the panel related to alloy ingots and die castings. It was requested to Shri Nambi Ji to provide the name and details of the important stakeholder and get them on board in the next panel meeting. • It was also requested to the member secretary to provide the word documents of ISO 15201 and ISO 301 so that the same can be edited.	----------DO----------

			• The panel further discussed regarding the formulation of standard in the field of Continuous Galvanizing Grade (CGG) Zinc Alloys for Hot-Dip Galvanizing and it was put forward that following are the important stakeholders in the formulation of the standard: a) Tata steel b) JSW c) POSCO d) SAIL The standards for GALAFAN, ZINC-AL-Mg, and Zinc-Al alloys for hot dip coatings may also be taken into the consideration at later stages. Action taken: Accordingly the word documents of ISO 15201 and ISO 301 was shared with the panel members vide mail dated 06- June -2023 to draft/modify the standards and submit it to member secretary before 26-june 2023. Shi Sandeep Tandon, Director, DST Tech Private Limited vid email dated 07-June 2023 assured to give both the drafts of ISO 301 and ISO 15201 by 22-June 2023. However the drafts are awaited. Final status/recommendations of Panel: 1. The panel recommended to modify ISO 301 and ISO 15201 and submit the modified drafts by 26 June 2023. 2. The drafts are awaited..	
5.	**IS 1654 : 1992 Lead - Antimony alloys - Specification (Third Revision)**	The committee in its previous meeting decided to reconstitute the panel-1 consisting of: 1. Shri K Sridhar, of M/s ILZDA (Panel convener) 2. Shri KHK Srinivas, of M/s NILE lead Ltd. 3. Shri Amrendra Jha of M/s Arya Alloys 4. Shri M. Nambi of M/s HZL 5. Gravitas India Ltd. Jaipur The committee requested the panel to review the standard and submit their recommendation to the committee till 31st December 2022.	The recommendations are awaited. It is being proposed to archive the standard and take them up for revision at the later stage.	The committee after deliberation decided to archive the standard and take up for revision at the later stage with proper representation of experts/members in the panel-1.
6.	**Revision of IS 2604 : 1988**	The committee in its previous meeting requested Dr. Jayakumar of M/s CECRI to review the standard and submit	Dr. Jayakumar was requested vide email dated 23-December-2022 to submit their	The committee after deliberation requested Dr. Jayakumar of M/s CECRI

	Specification for lead anodes for electroplating (Second Revision)	their recommendation till 31st December 2022 whether to revise/withdraw the standard.	recommendations and a reminder for the same was sent on 13 March 2023. email 13march.pdf ReGentle reminder review of IS 2604 an The revised standards and the justification of the changes of IS 2602 and IS 2604 were received vide email dated 13-April-2023. IS 2604 LEAD ANODES - Dr M Jaya BIS Commenting Template - IS 2604 L IS 2602 Cadmium anodes - Dr M Jayak BIS Commenting Template - IS 2602 C However certain comments were raised by BIS and communicated to Dr. Jayakumar vide email dated 15-May-2023 for clarification. However, the reply is awaited. The comments are given in the draft itself enclosed below IS 2602 Cadmium anodes - Dr M Jayak	to submit the revised draft to the Member secretary within 15 days. Further the committee requested Member secretary that on the receipt of the revised draft send it for WC for a period of one month. In case no comments received/comments received are editorial in nature send it for printing with the permission of chairperson MTD 09.
7.	**Revision of IS 2602 : 1989 Cadmium anodes for electroplating specification (First Revision)**	The committee in its previous meeting requested Dr. Jayakumar of M/s CECRI to review the standard and submit their recommendation till 31st December 2022 whether to revise/withdraw the standard.	----------do----------	----------DO----------
8.	**Review of IS 8439 : 1977 Methods for sampling of lead and lead alloys**	The committee in its previous meeting decided to take up the review of this standard in JULY 2023 - SEPTEMBER 2023 quarter.	It is being proposed to allocate the standard to Panel-1 or form a new panel for reviewing the standard and give their recommendations on whether to revise/editorially revise/withdraw the standard. It is further to inform to the committee that for sampling lead and lead alloys EN 12402:1999 exists as an International standard..	The committee after deliberation requested panel-1 to review the standard thoroughly and suggest/recommend whether to revise/archive/ reaffirm the standard. Further the committee requested the members to suggest the details of the users of lead to induct them into the panel-1 to have fruitful discussions.

Item 4 DRAFT STANDARDS/AMENDMENTS FOR FINALIZATION

4.1 The committee after detailed deliberation on the draft standards/amendments for finalization, decided as follows:

Sl No.	Draft Indian Standard / Amendment	Decision of the Committee in its previous meeting	Actions Taken	Decision of the committee during this meeting.
1.	**Revision of IS 27 Pig Lead specifications (Panel 1)**	The committee after detailed deliberation decided to send the draft enclosed at Appendix 1 of the minutes of previous meeting for Wide Circulation for 1 month. In case no comments are received/comments received are editorial in nature on the wide circulated draft,, the same would be sent for printing with the permission of the chair of MTD9 Technical committee.	The draft enclosed below was sent for wide circulation for a period of one month on **15- DEC-2022 inviting comments till 15-Jan-2023** IS 27 Final Wc without assistance.c IS 27 Final Wc without assistance.c **Comments were received from WDRA (Warehouse Development Regulatory authority)** given below vide email dated 10 Jan 2023 regarding **relaxing the requirements of Iron content** in the grades **and increasing the impurity Silver content in 99.97 grade from** 0.0050 to 0.0075 as per ASTM B 29 **.** The comments are enclosed below. **WDRAComments dt 10Jan 2023 on DOC** **Further comments were received from Dr Sagar Sengupta vi**de email dated 23 January 2023, and they are in agreement with the current proposed wide circulated draft. **Dr Sagar Sengupta comments.pdf** The **panel 1** after detailed deliberation in its 3rd meeting held on 20th February 2023, recommended that the changes proposed in the standard by WDRA are with respect to making the requirements of iron optional, not being a technical change in a broad sense and proposed to finalize the below draft and recommended to the committee to send the below draft for printing without further delay. The panel also agreed with the view of WDRA on account of its	Shri Mukesh Sinha of WDRA explained to the committee about making the requirement of iron optional and relaxing the impurity content of silver to 0.0075 as per ASTM B 29. It was proposed to the committee that the requirement of iron is not mentioned in BSEN 12659 :1999 and also the examples of Kenya power specification for lead acid motor vehicle batteries, Hindustan zinc product catalogue, test certificate of Pondy Oxides and chemicals limited was cited and explained. The justifications provided by WDRA given below were also explained to the committee by Shri Mukesh Sinha of WDRA. **WDRAComments dt 10Jan 2023 on DOC** The committee after detailed deliberation agreed with the views of the panel and WDRA and decided that making the impurity content of iron optional by introducing the Note4 in the Table is not a technical change in broad sense as the flexibility is available to user to cite the iron content as per his requirements. The committee further agreed on increasing the silver content to 0.0075 percent Max as per ASTM B 29 as the Note 2 is already there to accommodate the requirement of users for lower impurity content and hence not a technical change in the strict sense. **The committee decided to finalize the below draft as suggested by panel and sent it for printing.**

			justifications (reference to international standards etc) which were cited for making the requirements of iron optional and increasing the limits of silver impurity in grade 99.97 from 0.0050 to 0.0075 as per ASTM B 29. IS 27 NEW DRAFT 2.docx **Final recommendations of the panel:** **1.** Make the analysis/determination of iron content optional, which is not a technical change in broad sense and relaxing the silver content in Grade99.97 from 0.0050 to 0.0075 as per ASTMB828. **2.** To send the draft enclosed below for publication. IS 27 NEW DRAFT 2.docx	IS 27 NEW DRAFT 2.docx
2.	**Revision of IS 2782 (Primary Nickel specification) MTD/09/20249**	The committee in its previous meeting after detailed deliberation decided to send the draft enclosed at Appendix 2 of the minutes of previous meeting for Wide Circulation for 1 month. In case no comments are received/comments received are editorial in nature on the wide circulated draft, the same would be sent for printing with the permission of the chair of MTD9 Technical committee.	**Accordingly, the draft enclosed below was sent in Wide Circulation on 16-12-2022 inviting comments from public till 16 January 2023.** **It is now being proposed to finalize the draft and send the same for printing.** WCMTD3220249_15 122022_2.pdf	The committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing. WCMTD3220249_15 122022_2.pdf
3.	**Revision of IS 2605 Specification for zinc anodes for electroplating MTD/09/20234**	The committee in its previous meeting after detailed deliberation decided to send the draft enclosed at Appendix 3 of the minutes of previous meeting for Wide Circulation for 1 month. In case no comments are received/comments received are editorial in nature, the same would be sent for printing with the permission of the chair of MTD9 Technical committee.	**Accordingly, the draft enclosed below was sent in Wide Circulation on 19-12-2022 inviting comments from public till 18 January 2023.** **It is now being proposed to finalize the draft and send the same for printing.** WCMTD3220234_19 122022_2(1).pdf	The committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing. WCMTD3220234_19 122022_2(1).pdf

4.	**Revision of IS 2258 Specification for rolled zinc plate sheet and strip MTD/09/20250**	The committee in its previous meeting after detailed deliberation decided to send the draft enclosed at Appendix 4 of the minutes of previous meeting for Wide Circulation for 1 month. In case no comments are received/comments received are editorial in nature on the wide circulated draft,, the same would be sent for printing with the permission of the chair of MTD9 Technical committee	**Accordingly, the draft enclosed below was sent in Wide Circulation on 16-12-2022 inviting comments from public till 17 January 2023. Since no comments were received on the wide circulated document bearing Document No.MTD 09 (20250), it is now being** proposed to finalize the draft and send the same for printing  WCMTD3220250_16 122022_1.pdf	The committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing.  WCMTD3220250_16 122022_1.pdf
6.	**IS 1655 : 1991 Metallic materials - Zinc alloys - Code of practice for manufacture of pressure die castings (Second Revision)**	The committee in its previous meeting decided to allocate the standard to Member secretary and further revise the standard by doing the editorial changes in the standard and send the same for P circulation for a period of one month. In case no comments are received, the same would be sent in wide circulation for a period of one month. In case no comments are received /comments received are editorial in nature, the same would be sent for printing with the permission of Chairperson of MTD 9 TC.	**Accordingly, the draft enclosed below was sent for circulation among the members on 17-10-2022 and no comments were received.**  70_8079_230324113 906_ARP_Report.doc **Since, no comments were received on the circulated document, the draft enclosed below was sent in Wide circulation for a period of one month on 23-12-2022, inviting comments till 24-01-2023.**  WCMTD3221560_22 122022_1(1).pdf **Since no comments were received on wide circulated document bearing document No. MTD 09 (21560) , it is being proposed to finalize the draft and send the same for printing** **The committee may please deliberate and decide.** **Further Actions Taken by Member Secretary which requires Post Facto approval:** The committee had already decided in its 20th meeting to revise the standard by doing the editorial/cosmetic changes only. However, since the standard has become due for reaffirmation, on March 2023, the approval for amending the decision from mere revision to reaffirm and revise was sent to members on 14 March 2023 giving them time till 18 March 2023. However no comments were received and it was presumed their approval for the same and the decision was amended to a reaffirm and revise on the BIS Portal.	As the standard was due for review in March 2023 due for review this year, the committee post facto approved the decision to reaffirm and revise the standard. Further, the committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing.  WCMTD3221560_22 122022_1(1).pdf

7.	**IS 13923 : 1993 Lead seal – Specification MTD 09 (20799)**	The committee in its previous meeting decided to allocate the standard to member secretary and further decided to revise the standard by doing the editorial changes in the standard and send the same for P circulation for a period of one month. In case no comments are received/ comments received are editorial in nature, the same would be sent in wide circulation for a period of one month. The committee further decided that in case no comments are received/ comments received are editorial in nature on the wide circulated, the same would be sent in printing with the permission of the Chairperson of MTD9 TC**.**	**As decided by the committee, the draft enclosed below was sent in P Circulation on 17-10-2022 for 21 days, inviting comments from members till 07-11-2022.**  PMTD3220799_1710 2022_1(2).pdf **Since no comments were received on the P-Circulated draft bearing document No. MTD 09 (20799), the draft enclosed below was sent for wide circulation on 16-12-2022, inviting comments from public domain till 17-01-2023.**  WCMTD3220799_16 122022_2(1).pdf **Since no comments were received on the wide circulated draft bearing document No. MTD 09 (20799), it is being proposed to finalize the same and send it for printing.** **Further Actions Taken by Member Secretary which requires Post Facto approval:** The committee had already decided in its 20th meeting to revise the standard by doing the editorial/cosmetic changes only. However, since the standard has become due for reaffirmation, on March 2023, the approval for amending the decision from mere revision to reaffirm and revise was sent to members on 14 March 2023 giving them time till 18 March 2023. However no comments were received and it was presumed their approval for the same and the decision was amended to a reaffirm and revise on the BIS Portal.	As the standard was due for review in March 2023 due for review this year, the committee post facto approved the decision to reaffirm and revise the standard. Further, the committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing.  WCMTD3220799_16 122022_2(1).pdf
8.	**Revision of IS 13751 : 1993 Tungsten ores for hard metal industry – Specification** **MTD 09 (21573)**	The committee in its previous meeting after detailed deliberation decided revise the standard by doing the editorial changes in the standard to align with current BIS practices and requested member secretary to draft the revised draft and send it for P-circulation for 3 weeks' time. In case no comments are received/ comments received are editorial in nature, the same should be wide circulated for a period of 1 month to get the comments if any from the other stakeholders. The committee further decided that in case no comments are received /comments received are editorial in nature, the	**As decided by the committee, the draft enclosed below was sent in Circulation to members on 01-11-2022, inviting comments from members till 02-12-2022.**  70_5515_221101122 013_Draft_Documen **Since no comments were received on the Circulated draft, the draft document bearing document No. MTD 09 (21573) was sent for wide circulation on 23-12-2022, inviting comments from public domain till 24-01-2023.**  WCMTD3221573_22 122022_1.pdf	The committee after detailed deliberation decided to finalize the below wide circulated draft and sent it for printing.  WCMTD3221573_22 122022_1.pdf

		draft shall be sent for printing with the permission of the chairperson of MTD9 technical committee**.**	**Since no comments were received on the wide circulated draft bearing document No. MTD 09 (21573), it is being proposed to finalize the same and send it for printing.**	

Item 5 DRAFT STANDARD/ AMENDMENTS FOR APPROVAL FOR WIDE CIRCULATION

5.1 The committee noted the information given in Item 5.1 of the agenda and after detailed deliberations decided as follows:

Sl No.	Draft Indian Standard / Amendment	Background/Decision of the Committee in its previous meetings	Decision of the committee in its previous 20th meeting	Actions Taken	Decision of the committee during this meeting.
1.	**Revision of IS 26 (Tin Ingot specification) & IS 4280 Refined secondary Tin**	The committee in its 19th meeting after deliberation given after deliberation requested **Shri S Ramesh of M/s B.T Solders** to provide the updated specification as per international standards to be added in IS 26 within 2 weeks' time. On receipt of the recommendations, the same would be circulated among the members for their comments/views which would be then discussed in the next technical committee meeting for revising IS 26. **Action taken**: Shri S Ramesh of M/s B.T Solders submitted the updated specifications as per BSEN 610 to be included in the Indian standard IS 26 vide email dated 05-04-2022 and the same is placed below. Further it is being proposed to merge the standard IS 4280 (Refined Secondary tin Ingot) with a common title Tin Ingot as per the available International Standards ASTM B 339, BSEN 610 and GB/T 728.  BSEN 610 (2).xlsx	The committee after detailed deliberation in its 20th meeting requested **Shri S Ramesh of M/s B T Solders and Shri Subrata Sadhu of M/s Tinplate Company of India Limited** to submit the recommendations/ revised draft on both IS 4280 (Secondary Tin) and IS 26(Tin ingot), also considering the possibility of merging the both standards with a common title as per international practices till 31st December 2022.The committee further advised the member secretary to send the recommendations so received under P circulation for a period of 3 weeks' time.	**Shri S Ramesh of M/s B T Solders and Shri Subrata Sadhu of M/s Tinplate Company of India Limited** were requested vide email dated 10th January 2023 to submit the revised draft and possibility of merging the two standards IS 26 and IS 4280. In this regard, relevant documents like ASTM B339, BSEN 610 specifications etc. were shared with them. However no reply was received.  10th Jnauary mail.pdf Accordingly, the Member secretary vide email dated 12 January 2023, shared the revised draft enclosed below incorporating the grades from BSEN 610 and ASTM B 339 (TPSn99.85) and modification of sampling procedure in accordance with BSEN 610, under a single title Tin Ingot .Further, the requirements of IS 4280 were also covered in the single standard of IS 26. It was requested to Shri S Ramesh of M/s B T Solders and Shri Subrata Sadhu of M/s Tinplate Company of India Limited to review the draft and give their final views whether any changes are desired or not .  January 12 mail.pdf  IS 26 NEW DRAFT BY SAQIB (4).docx	The committee after detailed deliberation decided to send the below revised draft for WC for a period of one month.  IS 26 NEW DRAFT BY SAQIB (2).docx The committee further decided that if no comments are received/comments received are editorial in nature, the same shall be sent for printing with the permission of the Interim chairperson of MTD09 Technical Committee.

		B339.pdf 20210208102931534.pdf The committee in its previous meeting after detailed deliberation requested **Shri S Ramesh of M/s B T Solders and Shri Subrata Sadhu of M/s Tinplate Company of India Limited** to submit the recommendations/ revised draft on both IS 4280 (Secondary Tin) and IS 26(Tin ingot), also considering the possibility of merging the both standards with a common title as per international practices till 31st December 2022.The committee further advised the member secretary to send the recommendations so received under P circulation for a period of 3 weeks' time		A reminder email for the same was sent vide email dated 16-February-2023. Reply was received vide email dated 17-feb-2023 from Shri Subrata Sadhu of M/s Tinplate Company of India Limited and it was being commented that the new "grade of Tin mentioned as TPSn99.85 as per ASTM B339 needs to be removed. Tin used for Tinplate manufacture in India is imported due to non-availability in India and is very costly. Availability of tin matching the exact chemical composition for tinplate production is very difficult. Also with reference to ISO 11949 & BS EN 10202:2001, only the tin purity is mentioned in these international standards so creating a separate grade of tin for tinplate production is not required." Shri Subrata Sadhu of M/s Tinplate Company of India Limited agreed to all other changes and the reply recived is given below. Reply 17 Feb.pdf Accordingly, the draft was modified by removing the grade and the draft enclosed below was sent for P circulation on 28- February-2023 inviting comments till 21 March 2023 for a period of 21 days. PMTD3222058_2802 2023_1(1).pdf Comments were received on the P- Circulated draft from Shri Subrata Sadhu of M/s Tinplate Company of India Limited to correct the composition of Max. allowable As in Sn99.95 and max. total of all impurities in grade Sn99.75 and is enclosed below. Comments from TCIL.pdf It is to inform to the committee that the changes proposed are just a typing error from BIS and it is being proposed to incorporate these changes in	

				the draft standard and send the below draft for wide circulation for a period of one month. IS 26 NEW DRAFT BY SAQIB (2).docx	
2.	**Revision of IS 209 Zinc Ingots and IS 13229 – Zinc for galvanizing**	----------NA----------	The committee in its previous 20th meeting requested the **Panel-2** for Primary Zinc & Zinc Alloys consisting of Shri M Nambi (Panel Convener) ,Dr Rahul Sharma and Shri K Sridhar and Shri Vivek Noronha , to review the standard along with IS 13229 Zinc for galvanizing and submit their recommendations to the committee till 31st December 2022 on their merger and revision. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received , the same would be sent for Wide circulation for a period of one month	**1st combined panel meeting of MTD 9 Panel 2 and Panel 4 :** It was held on 20th march 2023 after detailed deliberation recommended to merge the standard IS 13229,IS 209 and IS 4699 to have single standard which covers the requirements for refined zinc as per the international practices. The panel further recommended to adopt ISO 20081 for sampling zinc and zinc alloys which needs to be referred in IS 209 and also further recommended to refer to ISO 3815-1 for chemical analysis using Spark OES also in IS 209 which is much accurate and faster method of determination of chemical composition. The panel requested the MS to communicate same with the MTD 34 TC and request them to adopt ISO 3815-1 as another part in IS 2600.The panel further decided to finalize the below draft and requested the member secretary to share the final draft (removing all the colorations and changes) again with the members for final views whether the drat is in line with the decisions of this panel till 1 weeks' time. .In case no comments are received /comments received are editorial in nature, the Member secretary would consider the draft as finalized by the panel and circulate the draft and other recommendations of the panel with the technical committee members for 3 weeks period of time as per the decisions of MTD9 TC in its 20th meeting. The minute of the meeting is enclosed below. 209n12 (1) (1).docx 10099_06042023172646_0.docx Accordingly the final draft was shared with the panel members for any further comments /recommendations vide mail dated 22-03-2023 giving time till 26-03-2023.Shri Randhir Rathaur of M/s Madhav KRG group (as one of the invitee	The committee after detailed deliberation decided as follows: 1. To send the revised draft enclosed below for WC for a period of one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the chairperson MTD09 Technical committee. IS 209 draft 2nd panel meeting MTD' 2. The committee further decided to adopt ISO 20081 for sampling zinc and zinc alloys which needs to be referred in IS 209 as suggested by the panel and

				in the panel) vide email dated 22 March 2023 agreed with the draft . However, the reply from other members was awaited. Drfat as per decisons email.pdf Further a reminder was sent on May 17, 2023 to the other members of the panel. However, the reply was awaited. 17 MAY Email.pdf A **meeting with Nambi Ji** was held on 23 May 2023, and the Clause 7.2 of the draft was modified and Note 6 on Cadmium content was deleted. Also, for the information of the purchaser and the supplier, the equivalent or related grades existing in various international standards, are given in the Annex A. The modified draft as prepared is given below: 209n12 (1) (5) new draft 23 maywithout **3rd Panel meeting of Panel2:** The third panel meeting of MTD9/P-2 was held on 13th June2023. The Panel had recommended to share the below draft with the committee members for circulation. The minutes of the panel meeting are also attached below. IS 209 draft 2nd panel meeting MTD9 MINUTES 2ND PANEL MEETING PAI **Final Status of Recommendations of the panel:**	send the same for wide circulation for one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the Interim chairperson MTD09 Technical committee. 3. To request MTD34 TC to adopt ISO 3815-1 solid OES as another part in IS 2600 as the method is widely used by manufacturers being most faster method of determination to assess the chemical composition.

				1. The **Panel 2** has recommended to merge IS 209, IS4699, IS 13229 as per international standards with a single title refined Zinc.  IS 209 draft 2nd panel meeting MTD 2. The panel has recommended to adopt ISO 20081. 3. The panel has also recommended to adopt ISO 3815-1 solid OES analysis as another part in IS 2600 and requested the Member Secretary to Communicate the same to MTD34 Technical Committee. The same has been intimated by MS to MTD 34 TC.	
3.	**Revision of IS 4699- Refined Secondary Zinc- Specification**	The Committee in its 19th meeting reviewed the ARP submitted by BIS officer for revising IS 4699 and aligning the grades with BSEN 13283 : 2002 given below and after detailed deliberation decided that since there is no adequate representation of members from Secondary Manufacturing Companies, upon receipt of list of manufacturers to be co-opted from ILZDA would be received A panel would be formed in the next committee meeting who will review the recommendation received from the BIS officer.  ARP 4699.pdf  REVISEDDRAFT 4699.docx  ARP_Report 4699.pdf	The after detailed deliberations decided to constitute the **Panel-4** consisting of Shri K Sridhar(Panel Convener) , Dr Rahul Sharma, Shri Neeraj Kedia, and Shri Anirudh Jhunjhunwala, Shri M. Nambi to review the standard and the recommendations given by BIS Officer and requested the Panel convener to submit the final recommendations to the committee till 31st December 2022. On receipt of the recommendation, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received, the same would be sent for Wide circulation for a period of one month.	----------do----------	----------do---------

		Action Taken : The ILZDA submitted the list of secondary producers of Zinc and the organization were reached out for their nominations. Nominations were received from J G CHEMICALS PVT LTD, Kolkata and CHAKRADHAR CHEMICALS PVT LTD, Muzaffarnagar (UP). However, nominations from RUBAMIN PRIVATE LIMITED, Vadodara are awaited.			
4.	**Revision of IS 12447:1988 Specification for Zinc wire for sprayed zinc coatings**	The committee in its 19th meeting after deliberation requested Shri Vivek Noronha of M/s Southern Metals & Alloys Pvt. Ltd to give the proper justification for the changes proposed in the revised draft enclosed at Appendix3 (while comparing it with the old draft submitted) of the agenda of 19th meeting to the committee within 2 Weeks' time. **Action Taken:** Shri Vivek Noronha of M/s Southern Metals & Alloys Pvt. Ltd was requested vide email dated 5th April 2022 Shri Vivek Noronha of M/s Southern Metals & Alloys Pvt. Ltd to submit the justifications for the changes done in the revised draft placed below .Further the comments of BIS to be addressed are attached below. However, the reply is awaited.  ACTIONS REQUIRED AS PER MINUTES OF  IS 12447 Revised Draft 2 by VN comm	The committee in its 20th meeting after detailed deliberation on the second draft submitted and comments from BIS enclosed below in the draft itself, requested the **Panel-2** consisting of **Dr. Rahul from M/s IZA , Shri M Nambi (Panel Convener) from M/s HZL ,Shri K Sridhar and Shri Vivek Noronha of M/s southern metals** to submit the recommendations/inputs/revised draft to the member secretary till 31st December 2022 and the working draft so received would be sent in Wide Circulation for a period of 1 month.  IS 12447 Revised Draft 2 by VN comm	**1st Combined Panel meeting of Panel 2 for primary zinc and Panel 4 for secondary zinc:** The panel in its 1st combined meeting of MTD 9 Panel 2 and Panel 4 held on 20th march 2023 after detailed deliberation decided that Dr Satish Tailor, Shri Vishal Kothari and Shri Vivek Noronha will submit the revised draft within two weeks' time. The draft submitted will be further circulated to the members for their views/comments. According to the comments received the final decision on WC of the draft will be discussed in the next panel meeting. The minutes of the meeting is enclosed below:  10098_06042023172414_0.docx • The revised draft from Khosla Engineering Private Limited, Pune was received vide email dated 10 May 2023, and is enclosed below.  Zinc standard draft (3).docx • However, certain comments are raised by BIS secretariat and the same are enclosed in the draft below and was shared with the panel members vide email dated 15 May 2023 for their comments.  Zinc standard draft from Panel edited by	The committee after detailed deliberation decided to send the revised draft submitted by the panel for WC for a period of one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the chairperson MTD09 Technical committee.  13th june draft.docx

				2nd panel meeting of Panel-2: The second panel was held on 22 May 2023, specifically for drafting IS 12447 and deliberating over the draft received from M/s Khosla Engineering. The panel after deliberation modified the draft received from Khosla Engineering Private Limited, Pune based on ASTM B 833 :2018 Standard Specification for Zinc and Zinc Alloy Wire for Thermal Spraying (Metallizing) for the Corrosion Protection of Steel and ISO 14919 : 2015 Thermal spraying and included the alloys also in the standard as per ASTM B 833 and removed grades 99.99 Zinc Wire as the same is discontinued and also deleted the requirements of mechanical properties as the properties vary with composition and size of the wires and not relevant in case of thermal spraying in line with ISO and ASTM . The panel further deliberated on the inclusion of wrapping test requirements for the wire which is an Important surface property during the feeding of wire. The draft prepared during the meeting is enclosed below and the changes are given in red color and their source/justification is given in the draft itself:  Zinc standard draft from Panel edited b The panel further requested Member Secretary to share the new draft along with the copy ISO 3815-1, IS 2600(relevant parts),IS 1755 with the panel members for refining the chemical analysis clause (i;e which Indian standards to be referred for chemical testing and referee analysis) . Based on the inputs received from panel members the draft will be finalized in the next panel meeting. **Action taken:** Accordingly draft of IS 12447 prepared by Member Secretary based on the suggestions during the meeting enclosed below along with the copy ISO 3815-1, IS 2600(relevant parts), IS 1755 was shared with the panel members for refining the chemical analysis clause (i;e which Indian standards to be referred for chemical testing and referee analysis) vide mail dated 31-05-2023.	

				DRAFT IS 12447 WITH COMMENTS.d 2nd Minutes panel meeting.docx Further the revised draft received from Shri Vivek Noronha vide mail dated 7-06-2023 enclosed below (refer to the yellow highlighted sections) which was shared with the panel members vide mail dated 08-06-2023 for inviting any further corrections/suggestions/modifications required in the standard. DRAFT IS 12447 WITH VN COMMENT **3rd Panel meeting to finalize the draft**: 3rd panel meeting of Panel 2 was held on 13-june 2023 and the draft enclosed below was finalized in the meeting. The minutes of the 3rd panel meeting are also enclosed below: Minutes of 3RD MEEITING MTD9P2 (13th june draft.docx **Final Status/recommendations of the panel:** 1. The panel recommended to finalize the below revised draft for Wide circulation. 13th june draft.docx	
5.	**Revision of IS 3717 : 1977 Specification for refined secondary lead (First Revision)**	The Committee in its 19th meeting reviewed the ARP submitted by BIS officer for revising IS 3717 and given below and after detailed deliberation decided that since there is no adequate representation of members from Secondary Manufacturing Companies, upon receipt of list of manufacturers to be co-opted from ILZDA would be received A panel would be formed in the next committee	The committee in its previous meeting decided to reconstitute the **panel-1** consisting of: **1. Shri K Sridhar, of M/s ILZDA (Panel convener)** **2. Shri KHK Srinivas, of M/s NILE lead Ltd.**	The **Panel-1** was requested vide email dated 23-March-2023 to review the draft and the recommendations submitted by the BIS Officer and give the final recommendations/revised draft till 28-March-2023. Email23 march.pdf REVISED DRAFT 3717 (3).docx	The committee after detailed deliberation agreed to relax the impurity content of Zinc to 0.001 percent as per SILMA specifications and Gravitas

		meeting who will review the recommendation received from the BIS officer.  ARP 3717.pdf  REVISED DRAFT 3717.docx **Action taken:** The ILZDA submitted the list of secondary producers of Lead and the organization were reached out for their nominations. Nominations were received from NILE LIMITED, Hyderabad However, nominations from GRAVITA INDIA LTD, Jaipur are awaited.	**3. Shri Amrendra Jha of M/s Arya Alloys** **4. Shri M. Nambi of M/s HZL** **5. Gravitas India Ltd., Jaipur** The committee decided to revise the standard and further requested the panel to review the standard and the recommendations submitted by BIS officer and submit the revised draft till 31st December 2022	 Fwd Review of the standard on IS 3717 Comments and the modified were received from M/s Arya Alloys and are enclosed below vide email dated 28-April-2023. It is being proposed to relax the zinc impurity from 0.0005(as per BSEN 12659 AND GB/T 469) to 0.001 percent max in 99.97 grade .Further it is being proposed by Arya alloys to relax the impurities of Antimony from 0.001 to 0.003 percent . Further the changes are proposed in 99.98 Grade in antimony which is currently being traded on MCX and which indicates that no changes are required in this grade.  Comments from arya alloys.pdf  REVISED DRAFT 3717 (7).docx  Email from bis on MCX Grade.pdf  mcx-and-lme-approved-brands-02-05-2(Further comments were received from Nile lead limited , to make stringer requirements for Bismuth and silver to be not more than 0.025% and 0.0030% respectively, if it is 0.03% and 0.0050% in any case total impurities not less than 0.03%. The general specification was shared by Nile lead limited vide email dated 15-May 2023 and is also enclosed below.  Emailcoments nile.pdf  PURE LEAD 99.97% +.pdf **Final proposal to the committee:** Based on the data sheet of Nile Lead and specification of lead given in SILMA website for 99.97 grade, It is now being proposed to relax the Zinc impurity in 99.97 grade from 0.0005 to 0.001 percent and keep antimony as it is at 0.001 percent. And as per comments of NILE Limited, it is being proposed to change the impurity	Specification and verified the same from their website and also stated that since the maximum impurity in next higher grade 99.98 is 0.001 percent max for zinc hence it is logical to relax the impurity content for zinc but not antimony. The committee further agreed to the view of BIS that total impurities itself is a requirement in the chemical composition and hence it doesn't matter whether the sum of the maximum capped impurity contents exceed by 0.03 percent. Further, the committee while deliberating on the comments and analyzing datasheet provided by Nile Lead and also analyzed the typical SILMA Specifications and Gravitas Specification from their website, agreed to their views on making the bismuth and silver content more stringent, and finally decided to keep bismuth content as 0.025 %

				contents for Bismuth and silver to as 0.025% and 0.0030% respectively, in spite of 0.03 percent and 0.005 percent respectively. However, it is to worth mention here that the total impurities of 0.03 percent is itself a requirement also and hence it does not matter if the sum of the impurities exceeds 0.03 percent .The same can be verified from BSEN also.	and silver content as 0.003%. **Final decision of the committee:** 1. Relaxing the Zinc content in 99.97 grade from 0.0005% to 0.001 % max. 2. Not to change the antimony content. 3. Making stringer requirements for Bismuth and Silver to 0.025% and 0.003% respectively. 4. The committee further requested the member secretary to incorporate all the changes in the draft and send the same for wide circulation for a period of 1 month. If some technical comments received on the wide circulated draft it will be discussed in the next committee meeting and if no comments received/comments received are editorial in nature then

					send it for printing with the permission of the Interim chairperson MTD09 Technical committee. SILMA SPECIFICATION.docx gravitas website specification lead.d
6.	**Revision of IS 11900 : 1986 Specification for tungsten rods and tungsten wire for lamps and electron devices**	The committee in its 18th meeting decided to allocate the standard to **Shri Vamsi Krishna Parmi of M/s MIDHANI & Philips India Ltd**. Accordingly, Shri Vamsi Krishna of M/s MIDHANI have informed that their organization is not dealing with the product. Several attempts were made to follow up with Philips India but no response was received Several attempts were made to follow up with Philips India but no response was received So, the review was taken up by Member Secretary and relevant stakeholders were contacted like ELCOMA who have recommended that no changes are required in the standard. However, some minor editorial and technical changes are recommended by Member Secretary based on ASTM standards and JIS standards. The ARP report was circulated to members through BIS Portal on 09th December 2021 for comments. The ARP Report submitted is attached below:	The committee in its previous meeting decided to revise the standard and requested **panel-5** to submit the revised standard till 31st December 2022.The draft so received shall be sent in Wide circulation inviting comments for a period of one month. In case no comments are received/commence received are editorial in nature, the same shall be sent in Printing with the permission of the Chairperson of MTD 9 Technical committee.	The modified draft of IS 11900 incorporating all the changes is enclosed below and the same was shared with the panel on 27th Feb 2023 incorporating all the changes proposed by Surya Roshni Ltd. The changes are highlighted in red color. 11900 modified.docx The assistance for the same has been derived from ASTM F 288: 1996, ASTM F 269: 1960, JIS H 4461-2002, JIS H 4460: 2002. However comments were received from Surya Roshni on 28 Feb 2023 with respect to terminology and the test specimen and the same is given below. Adobe Acrobat Document comemnts from Surya.pdf Based on the comments received from Shri Tapan Bandhopadhyay M/s Surya Roshni,Ltd, M.P , the draft was modified which is enclosed below and other documents were shared with the Panel 5 members to give their views whether the draft can be sent for wide circulation vide email dated 02 March 2023.	The committee after detailed deliberation decided to send the revised draft submitted by the panel for WC for a period of one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the Interim chairperson MTD09 Technical committee.

		arp report 11900.pdf email ELCOMA.pdf Draft.docx report.docx ARP (3).zip The committee after detailed deliberation in its 19th meeting decided decided to form a panel for reviewing the recommendation received from Member secretary and consisting of below mentioned members: 1. **Smt. Ashmita(Convener),MIDHANI** 2. **Dr. Abhilash, NML** 3. **Members from ELCOMA (details of which to be sought by Member secretary from ELCOMA)** The nominations received from ELCOMA are as follows: Mr. Tapan Bandyopadhyay from M/s Surya Roshni, Madhyapradesh and Mr. Nandan Pandya from M/s Signify Innovations India Limited Mr. Tapan was requested vide email dated 30th May 2022 to provide the inputs and observations on IS 11900 and the inputs were received vide email dated 10th June 2022 , which were editorial in nature and is attached below. **Tapan comments.pdf** Further, he was again requested vide email dated June 13 2022 to provide their inputs with respect to the observations made by member		11900 modified (3).docx 11900 old (2).pdf F-269 (2).pdf JIS H 4461-1989 (1) (1) (2).pdf F-288 (1) (2).pdf email 2nd march 2023.pdf Certain editorial comments were received from Shri Tapan Jee vide email dated 16 March 2023. editorial Comemnts Tapan ji 16 March 2(**1st Panel meeting of MTD9/Panel 5:** 1st panel meeting of MTD9/Panel 5 was held on 17 March 2023 and the minutes of which are enclosed below. 1st Meeting Panel 5 minutes.docx The panel after detailed deliberation include the changes proposed by Surya Roshni Ltd vide email 28th Feb 2023 and 16th March 2023 in the gauge length of the tensile specimen from 254 to 200mm and keep the definitions as it is as per ASTM F 288 and IS 13351 :1992 and requested the member secretary to share the draft enclosed below again to the panel members for their final comments on the same and if no comments received/comments received are editorial in nature then by doing editorial changes the draft would be sent for WC as per the decision taken by the MTD 9 TC in its 20th meeting. 11900 modified new (3).docx	

		secretary and submit the revised draft which can be discussed during Panel meeting. The doc format of the standard was also shared vide email dated July 4 2022.  Comments from BIS.pdf The comments were received from Mr. Tapan Bandyopadhyay from M/s Surya Roshni and are given below. However some more comments were raised by BIS with respect to clause 6.3 Winding strength and Clause 6.5 of winding strength, for which the inputs were sought from the above member vide email dated 14-09-2022.  suryacomments02092022 (6).docx  bis comments.pdf   Fwd Inputs required for updatir Proposal for apnel meeting.pdf		Accordingly the draft was shared among the panel members vide mail dated 17 March 2023 for finalizing the draft for wide circulation. Certain editorial corrections were proposed by Shri Tapan Bandhopadhyay vide email dated 24 March 2023 and the same were incorporated and the draft enclosed below was again sent to panel members for their concurrence for Wide Circulation vide email dated 25 April 2023.  11900 WITH CORRECTION (2) (4) The panel member's concurrence for the wide circulation of above was received vid email dated 02-May-2023 and of the panel convener vide email dated 15-May-2023.  Concurrence of panel members.pdf **Final Status/recommendation of Panel:** The panel has recommended to send the below draft for wide circulation for a period of 1 month.  11900 WITH CORRECTION (2) (4)	
7.	**Revision of IS 13351 : 1992 Thoriated tungsten wires and rods - Specification**	----------NA----------	The committee after detailed deliberation decided to allocate the standard to **Member secretary** for review.	Member secretary had reviewed the standard vis-à-vis ASTM F288 :1996 and based on the review it was proposed to revise the standard by including the changes proposed in the draft enclosed below. The main changes being addition of 1 percent thoria grade as per ASTM F 288 , modification of chemical composition of thoria in existing grade and deletion of referee method for measuring out of roundness. Further the clause 5.2.1 for determination of purity and thoria content has been modified. The ARP was circulated to members along with the draft on 27- September-2022 inviting	The committee after detailed deliberation decided to send the revised draft submitted by the panel for WC for a period of one month. The committee further decided that if no comments received/comments received are

				comments till 25-October-2022. However, no comments were received on the circulated ARP .  ARP MS.pdf  Draft Prepared by MS.docx  ARP_Report.docx **1st Panel meeting of MTD9/Panel-5:** The panel in its 1st meeting held on 17th March 2023 after deliberation on the revised draft prepared by Member Secretary on the basis of ASTM F 288 enclosed below agreed with the proposed changes and requested member secretary to share the draft again with panel members for comments till 1 weeks' time for the finalization of the draft to the committee stage.  13351 modified new (1).docx Accordingly the draft enclosed below was shared among the panel members vide mail dated 17 March 2023 for finalizing the draft for wide circulation.  13351 modified new (2) (1).docx The panel member's concurrence for the wide circulation of above was received vid email dated 02-May-2023 and of the panel convener vide email dated 15-May-2023.  Concurrence of panel members.pdf **Final Status/recommendation of Panel:**	editorial in nature then send it for printing with the permission of the Interim chairperson MTD09 Technical committee.

				The panel has recommended to send the below draft for wide circulation for a period of 1 month. 13351 modified new (2) (1).docx	
8.	**Revision of IS 5479 : 1985 Specification for solders for jointing aluminium and aluminium alloys (First Revision)** **MTD 09 (22091)**	----------NA----------	Since the standard was due for review in March 2023, the committee requested the member secretary to look for the manufacturers of the aluminium solders and submit the information to the committee in its next committee meeting and parallelly send the revised draft in new BIS format by doing the editorial changes in P circulation for a period of 21 days.	It was observed by member secretary that in the earlier draft assistance was derived from JIS Z 3281- Solders for Aluminium and Aluminium alloys. Further as decided, the draft was prepared by member Secretary by doing the cosmetic changes and aligning the same with latest format of BIS and the same was sent in P-Circulation on 10-03-2023 for 21 days inviting comments till 31-march 2023. PMTD3222091_1003 2023_1(1).pdf Since no comments were received on the P Circulated document bearing Document No. MTD 09 (22091), it is being proposed to send the same for Wide Circulation for a period of one month. **Further Actions Taken by Member Secretary which requires Post Facto approval:** The committee had already decided in its 20th meeting to revise the standard by doing the editorial/cosmetic changes only. However, since the standard has become due for reaffirmation, on March 2023, the approval for amending the decision from mere revision to reaffirm and revise was sent to members on 14 March 2023 giving them time till 18 March 2023. However no comments were received and it was presumed their approval for the same and the decision was amended to a reaffirm and revise on the BIS Portal.	Since the committee in its previous meeting had decided to revise the standard and the standard was due for review in March 2023, Hence the committee post facto approved to reaffirm and revise the standard. Further, the committee after detailed deliberation decided to send the revised draft enclosed below for WC for a period of one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the Interim chairperson MTD09 Technical committee. PMTD3222091_1003 2023_1(1).pdf
9.	**Revision of IS 211 : 1992**		The committee in its previous meeting decided to allocate the standard to **member**	It is to inform to the committee that international standard ASTM B237 Standard Specification for refined antimony .In line with ASTM, the scope	The committee after detailed deliberation agreed to the

	Antimony ingot - Specification Fourth Revision **MTD 09 (22138)**	----------NA----------	**secretary** and further decided to revise the standard by doing the editorial changes in the standard and send the same for P circulation for a period of one month. In case no comments are received/ comments received are editorial in nature, the same would be sent in wide circulation for a period of one month with the permission of the Chairperson of MTD9 TC. The committee further decided that in case no comments are received/ comments received are editorial in nature on the wide circulated draft, the same would be sent in printing with the permission of the Chairperson of MTD9 TC.	now covers the requirements of refined antimony produced by any smelting and refining process from ore or recycled materials to meet the chemical requirements of this specification which earlier specified from ore only. The Sulphur content of Grade99.50 has been made in line with ASTM B237 and has been reduced from 0.15 to 0.10 percent. The sampling clause has also been modified in line with ASTM. Accordingly, the draft enclosed below **(CHANGES ARE HIGHLIGHTED IN RED IN DRAFT)** was sent for circulation among the members on 24-01-2023 and no comments were received till the last date 24-02-2023. 70_8651_230124105523_ARP_Report.do 70_8651_230124105535_Draft_Documen Since, no comments were received on the circulated document, it is being proposed to send the same for wide circulation for the period of one month for obtaining the comments from Public Domain.	changes done in the draft and decided to send the revised draft enclosed below for WC for a period of one month. The committee further decided that if no comments received/comments received are editorial in nature then send it for printing with the permission of the chairperson MTD09 Technical committee.

Item 6 LIST OF INDIAN STANDARDS OF MTD-9

6.1 The committee noted the complete list of Indian Standards formulated by MTD-9 as given in Annexure-3 of the agenda of the Meeting

6.2 The committee also noted the information regarding the separate list of Indian Standards formulated according to the respective metals and its alloys given in **ITEM 6.2** of the Agenda.

Item 7 COMMENTS ON PRINTED STANDARDS

7.1 The committee noted the information as given in item **7.1** of the agenda of the meeting and after detailed deliberation decided that the comments placed at Item **7.1** of the agenda shall be discussed in the next committee meeting.

Item 8 REVIEW OF INDIAN STANDARDS

8.1 The Committee noted the information given in Item **8.1** of the Agenda of the Meeting.

8.2 The committee noted the information given in Item **8.2** of the Agenda of the meeting and decided the following for the standards that are due for review/reaffirmation this year;

Sl. No.	*IS No.*	*Title*	*Due Date*	*Actions proposed*	*Decision of the committee during this meeting*
1.	IS 211: 1992	Antimony ingot - Specification (Fifth Revision)	February, 2024	It is being proposed to reaffirm and revise as the standard as it is already under revision.	The committee after deliberation decided that as the standard is already under revision hence decided to **reaffirm and revise** the standard.
2.	IS 13229 : 1991	Zinc for galvanizing - Specification	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
3.	IS 13751 : 1993	Tungsten for hard metal industry - Specification	March, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
4.	IS 26 : 1992	Tin ingot - Specification (Fourth Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
5.	IS 27 : 1992	Pig lead - Specification (Fourth Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
6.	IS 3717 : 1977	Specification for refined secondary lead (First Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
7.	IS 4280 : 1992	Refined secondary tin - Ingot specification (Second Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
8.	IS 713 : 1981	Specification for zinc base alloy ingots for die casting (Second Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
9.	IS 742 : 1981	Specification for zinc base alloy die castings (Second Revision)	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------
10.	IS 10816 : 1984	Methods of sampling zinc and lead concentrates	March, 2024	Proposed for withdrawal by the committee in its previous meeting and superseding it with IS 12871/ISO 12743.	The committee after deliberation decided to **withdraw** the standard and superseding it with IS 12871/ISO 12743.

11.	IS 1654 : 1992	Lead - Antimony alloys - Specification (Third Revision)	February, 2024	It is being proposed to archive the standard as per the plan .	The committee after deliberation **decided to archive** the standard.
12.	IS 404 (Part 1) : 1993	Lead pipes - Specification: Part 1 for other than chemical purposes (Third Revision)	February, 2024	It is being proposed to archive the standard as per the plan The committee may please deliberate and decide.	----------DO----------
13.	IS 404 (Part 2) : 1993	Lead pipes - Specification: Part 2 for chemical purposes (Third Revision)	February, 2024	It is being proposed to archive the standard as per the plan. The committee may please deliberate and decide.	----------DO----------
14.	IS 405 (Part 1) : 1992	Lead sheets and strips - Specification: Part 1 for chemical purposes (Third Revision)	February, 2024	The standard is being proposed for archive as per the plan. The committee may please deliberate and decide.	----------DO----------
15.	IS 405 (Part 2) : 1992	Lead sheets and strips - Specification: Part 2 for other than chemical purposes (Third Revision)	February, 2024	It is being proposed to archive the standard as per the plan. The committee may please deliberate and decide.	----------DO----------
16.	IS 8439 : 1977	Methods for sampling of lead and lead alloys	February, 2024	It may be allocated to the panel for its thorough review and recommend whether to revise/ only editorial changes are required/withdraw/archive. It is to inform to the committee that for sampling lead and lead alloys EN 12402:1999 exists.	The committee after deliberation requested **panel 1** to review the standard thoroughly and suggest/recommend whether to revise/reaffirm/archive the standard.
17.	IS 2782 :1964	Primary Nickel Specification	March, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	The committee after deliberation decided that as the standard is already under revision **hence reaffirm and revise** the standard.
18.	IS 12447:1988	Specification For Zinc Wire For Sprayed Zinc Coatings	February, 2024	It is being proposed to reaffirm and revise the standard as it is already under revision.	----------DO----------

8.3 The committee noted the information given in Item **8.3** of the Agenda and after detailed deliberations decided as follows for the review of pre 2000 year Standards.

A. PRIMARY ZINC AND ZINC ALLOYS

IS No. & Title	Decisions of the committee in previous meetings	Action taken	Decision of the committee during this meeting
IS 209 : 1992 Zinc ingot - Specification (Fourth Revision)	The committee requested the **Panel-2 for Primary Zinc & Zinc Alloys consisting of Shri M Nambi (Panel Convener) ,Dr Rahul Sharma and Shri K Sridhar ,** to review the standard along with IS 13229 Zinc for galvanizing and submit their recommendations to the committee till 31st December 2022. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received , the same would be sent for Wide circulation for a period of one month.	Kindly refer **to item 5 Sl 2 of this minutes.**	Kindly refer **to item 5 Sl 2 of this minutes.**
IS 13229 : 1991 Zinc for galvanizing - Specification	–	–	--------do---------
IS 713 : 1981 Specification for zinc base alloy ingots for die casting Second Revision	The committee requested the **panel-2 for Primary Zinc & Zinc Alloys consisting of Shri M Nambi (Panel Convener) ,Dr Rahul Sharma and Shri K Sridhar** to review the standard and also take into consideration the information shared by BIS Secretariat and submit the recommendations to the committee till 31st December 2022. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received, the same would be sent for Wide circulation for a period of one month**.**	Kindly refer **to item 3 Sl no 3 of this minutes.**	Kindly refer **to item 3 Sl no 3 of this minutes.**

B. SECONDARY ZINC

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 4699 : 1984 Specification for refined secondary zinc First Revision	The noted the information and after deliberations decided to constitute the **Panel-4 consisting of Shri K Sridhar(Panel Convener) , Dr Rahul Sharma, Shri Neeraj Kedia, and Shri Anirudh Jhunjhunwala, Shri M. Nambi** to review the standard and the recommendations given by BIS Officer and requested the Panel convener to submit the final recommendations to the committee till 31st December 2022. On receipt of the recommendation,, the same has to be circulated to the committee members for 3 Weeks' time for their views/comments. In case no comments are received , the same would be sent for Wide circulation for a period of one month.	Kindly refer **to item 5 Sl no 3 of this minutes.**	Kindly refer **to item 5 Sl no 3 of this minutes.**

C. ZINC PRODUCTS

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 742 : 1981 Specification for zinc base alloy die castings Second Revision	The committee after detailed deliberations decided to constitute the **panel-3** consisting of : **a) DST Industries (Details of point of contact to be given by Dr. Rahul Sharma)** **b) Shri M. Nambi** **c) Dr. Rahul Sharma (Panel Convener)** The committee requested the panel to review the standard and submit their recommendations/revised draft to the committee till 31st December 2022.	Kindly refer to **item 3.1 Sl no 4** of this minutes.	Kindly refer to **Item 3.1 Sl no 4** of this minutes.

D. LEAD AND LEAD ALLOYS

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting

IS 3717 : 1977 Specification for refined secondary lead First Revision	**The committee noted the** information and decided to **reconstitute the panel-1** consisting of: **6. Shri K Sridhar, of M/s ILZDA (Panel convener)** **7. Shri KHK Srinivas, of M/s NILE lead Ltd.** **8. Shri Amrendra Jha of M/s Arya Alloys** **9. Shri M. Nambi of M/s HZL** **10. Gravitas India Ltd., Jaipur** The committee decided to revise the standard and further requested the panel to review the standard and the recommendations submitted by BIS officer and submit the revised draft till 31st December 2022.	Kindly refer to **item 5 Sl no 5** of this minutes.	Kindly refer to **item 5 Sl no 5** of this minutes.
IS 1654 : 1992 Lead - Antimony alloys - Specification Third Revision	The committee noted the information and decided to reconstitute the **panel-1 consisting of:** **1. Shri K Sridhar, of M/s ILZDA (Panel convener)** **2. Shri KHK Srinivas, of M/s NILE lead Ltd.** **3. Shri Amrendra Jha of M/s Arya Alloys** **4. Shri M. Nambi of M/s HZL** **5. Gravitas India Ltd. Jaipur** The committee requested the panel to review the standard and submit their recommendation to the committee till 31st December 2022.	Kindly refer to **item 3 Sl no 5** of this minutes.	The committee after deliberation decided to **archive the standard** and take up for revision at the later stage with proper representation of experts/members in the panel-1. Kindly refer to **item 3 Sl no 5** of this minutes.
IS 14688 : 1999 Lead - Antimony alloy bricks for radiation shielding - Specification	NA	NA	The committee after deliberation decided to discuss it in the next committee meeting.

E. LEAD AND LEAD ALLOY PRODUCTS

IS No. & Title	**Decisions of the committee in previous meetings**	**Actions taken**	**Decision of the committee during this meeting**
IS 404 (Part 1) : 1993 Lead pipes - Specification Part 1	NA	NA	The committee after deliberation decided to archive the standard and take

for other than chemical purposes Third Revision			up for review at the later stage with proper representation of experts/members in the panel-1.
IS 404 (Part 2) : 1993 Lead pipes - Specification Part 2 for chemical purposes Third Revision	NA	NA	DO
IS 405 (Part 1) : 1992 Lead sheets and strips - Specification Part 1 for chemical purposes Third Revision	NA	NA	DO
IS 405 (Part 2) : 1992 Lead sheets and strips - Specification Part 2 for other than chemical purposes Third Revision	NA	NA	DO

F. ANODES FOR ELECTROPLATING

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 2605 : 1985 Specification for zinc anodes for electroplating First Revision	**The committee in its previous meeting after detailed deliberation decided to send the draft enclosed at Appendix 3 of the minutes of previous meeting for Wide Circulation for 1 month. In case no comments are received/comments received are editorial in nature, the same would be sent for printing with the permission of the chair of MTD9 Technical committee.**	Kindly refer to **item 4 Sl no 3** of this minutes.	Kindly refer to **item 4 Sl no 3** of this minutes.
IS 2604 : 1988 Specification for lead anodes for electroplating (Second Revision)	The committee in its previous meeting requested Dr. Jayakumar of M/s CECRI to review the standard and submit their recommendation till 31st December 2022 whether to revise/withdraw the standard.	Kindly refer to **item 3 Sl no 6** of this minutes.	Kindly refer to **item 3 Sl no 6** of this minutes.

IS 2602 : 1989 Cadmium anodes for electroplating specification (First Revision)	The committee in its previous meeting requested Dr. Jayakumar of M/s CECRI to review the standard and submit their recommendation till 31st December 2022 whether to revise/withdraw the standard.	Kindly refer to **item 3 Sl no 7** of this minutes.	Kindly refer to **item 3 Sl no 7** of this minutes.

G. ANTIMONY

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 211 : 1992 Antimony ingot - Specification Fourth Revision	Kindly refer to **item 5 Sl no 9** of this minutes.	Kindly refer to **item 5 Sl no 9** of this minutes.	Kindly refer to **item 5 Sl no 9** of this minutes.

H. TUNGSTEN

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 11900 : 1986 Specification for tungsten rods and tungsten wire for lamps and electron devices	The committee noted the information and decided to revise the standard and requested **panel-5** to submit the revised standard till 31st December 2022.The draft so received shall be sent in Wide circulation inviting comments for a period of one month. In case no comments are received/commence received are editorial in nature, the same shall be sent in Printing with the permission of the Chairperson of MTD 9 Technical committee.	Kindly refer to **item 5 Sl no 6** of this minutes.	Kindly refer to **item 5 Sl no 6** of this minutes.
IS 13351 : 1992 Thoriated tungsten wires and rods - Specification	The committee after detailed deliberation decided to allocate the standard to Member secretary for review.	Kindly refer to **item 5 Sl no 7** of this minutes.	Kindly refer to **item 5 Sl no 7** of this minutes.
IS 13751 : 1993 Tungsten for hard metal industry - Specification	The committee after detailed deliberation decided revise the standard by doing the editorial changes in the standard to align with current BIS practices and requested member secretary to draft the revised draft and send it for P-circulation for 3 weeks time. In case no comments are received/ comments received are editorial in nature, the same should be	Kindly refer to **item 4 Sl no 8** of this minutes.	Kindly refer to **item 4 Sl no 8** of this minutes.

	wide circulated for a period of 1 month to get the comments if any from the other stakeholders. The committee further decided that in case no comments are received /comments received are editorial in nature , the draft shall be sent for printing with the permission of the chairperson of MTD9 technical committee.		

I. MOLYBDENUM

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 12445 : 1988 Specification for molybdenum plate sheet strip and foil	NA	NA	The committee after deliberation decided to discuss it in APRIL 2024 TO JUNE 2024 QUARTER
IS 12465 : 1988 Specification for molybdenum wires for lighting and electronic application	NA	NA	----------DO----------
IS 13350 : 1992 Molybdenum rods - Specification	NA	NA	----------DO----------

J. SAMPLING

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 8439 : 1977 Methods for sampling of lead and lead alloys	To be taken up for review in the next quarter JULY 2023 - SEPTEMBER 2023	Kindly refer to **item 3.1 Sl no 8** of this minutes.	Kindly refer to **item 3.1 Sl no 8** of this minutes.
IS 1817 : 1961 Methods of sampling non -	To be taken up for review in the next quarter JULY 2023 – SEPTEMBER 2023	NA	The committee after deliberation decided to

Ferrous metals for chemical analysis			discussed it in the next committee meeting.
IS 10816 : 1984 Methods of sampling zinc and lead concentrates	The committee noted the information and after detailed deliberation recommended to withdraw the standard based on the justification proposed by Shri M. Nambi of M/s HZL.	NA	The committee after deliberation decided to withdraw the standard and superseding it with IS 12871/ISO 12743. Kindly refer to **item 8.2 Sl no 10** of this minutes.

K. BEARING ALLOYS

IS No. & Title	Decisions of the committee in previous meetings	Actions taken	Decision of the committee during this meeting
IS 25 : 1979 Specification for antifriction bearing alloys Third Revision	The committee in its 18th meeting decided to allocate the standard to the Bi-metallic bearings . However While contacting Bimetallic Bearings Ltd, it was found that they are not dealing with the plain bearing products. Meanwhile, Allocated to BIS Officer (Phase 3) by PRTD Department. The ARP Report along with draft received is placed below and the same was circulated to members through our portal dated 03/02/2022 for their views/comments. The changes as proposed may be considered by technical committee for revision. ARP.pdf Revised Draft_8475.docx	PGD 13 Technical Committee was requested vide email dated 18th May 2022 and 05th august 2022 to give the nominations. PGD 13 has informed that there is a separate panel for plain bearings which looks after all the antifriction bearing alloys. Further they have informed that generally, the plain bearing manufacturers are the manufacturers of the material (Antifriction bearing alloys) also. It is being proposed to refer the IS 8475 and IS 25 to the PGD 13 Panel who will submit their recommendations. The composition of the Panel is given below. The committee noted the information and advised member secretary to get the view of the panel.	The committee after deliberation decided to discuss it in APRIL 2024 TO JUNE 2024 QUARTER.

	The committee in its 19th meeting decided that, due to inadequate representation from bearing manufacturers advised member secretary to get the nomination of members from PGD 13 Technical committee to get them onboard on the panel which would review the recommendation received from the BIS officer. The committee further advised Member secretary to parallely request the members of the Technical Committee to suggest members for the panel and a Volunteer for becoming the convener of the panel		
IS 8475 : 1977 Specification for lead - Base antifriction bearing alloy for heavy duty applications	The committee noted the information and after detailed delebration decided that since the grades mentioned in IS 8475 are derived from IS 25 itself and hence the panel which will be formed for IS 8475 will also review IS 25 and submit their commendations for consideration to the committee.	------do----	**----do----**

Item 9 NEW SUBJECTS FOR STANDARDIZATION

9.1 The committee has noted the information as given in item **9.1** to **9.5** of the agenda.

9.2 During the meeting, brief presentation on Continuous Galvanizing Grade (CGG) Zinc Alloys for Hot-Dip Galvanizing of Sheet Steel was given by Shri M. Nambi, In his presentation he addressed that while importing the zinc for galvanizing, the importers follow ASTM standard and the domestic manufactures supply zinc as agreed between purchaser and manufacturer so we need one standard to follow for manufacturing and supply of zinc for galvanizing. Hence he proposed to formulate new standard as a small R&D project on Continuous Galvanizing Grade (CGG) Zinc Alloys for Hot-Dip Galvanizing. He further informed the committee details about the ASTM B852 standard which exists on the same subject, need for standardization, possible users and the domestic manufacturers. The committee after deliberation finalized to formulate new standard on Continuous Galvanizing Grade (CGG) Zinc Alloys under R&D project and decided to form a new panel (namely Panel-6 For formulating news standard on CCG Zinc alloy)s consisting of below members with Shri M Nambi of M/s HZL, Udaipur as the project leader/Convener. The

committee further requested Nambi Ji to share the proper details of below organization and the relevant persons to the Member Secretary of the below organizations to be contacted for getting the nominations and inducting them into the panel. The committee further decided that for testing and validation and property evaluation shall be done at NML, if required as informed by Dr. Abhilash of M/s NML.
The committee further requested the project leader to submit the Terms of Reference of the project indicating the estimated cost (for literature survey, testing and validation etc), procedure of R&D and its Scope once the members of the panel are on board.
The details of the presentation is enclosed below:

CGG Introdcution.pptx

Details of Panel Members:
Shri M. Nambi , M/s HZL Udaipur
M/s Tata Steel
M/s Tata Bluescope
M/s JSW Steel
M/s POSCO
M/s SAIL
M/s Nippon Steel
M/s Arcellor Mittal
M/s NML

Item 10 WTO-TBT Enquiry Point

10.1 The committee has noted the information as given in item **10.1** to **10.6** of the agenda of the meeting.

Item 11 INTERNATIONAL ACTIVITIES

11.1 The committee has noted the information given in item **11.1** of the agenda of the meeting.

11.2 The committee has noted the information given in item **11.2** of the agenda of the meeting and after deliberation requested committee members to come forward to actively participate in the meetings of the ISO .The committee further decided that as India is a 'O' member on ISO/TC 333 – **Lithium** and there is lot of advancement taking place in EV sector and subsequently in battery manufacturing, requested members to suggest name of the member/expert on Lithium to represent India at ISO level.

11.3 The committee has noted the information given in item **11.3** of the agenda of the meeting and after deliberation and decided that as ISO 9453 is very extensive, it covers very large number of grades as compare to IS 193 hence harmonize our standard IS 193 with ISO 9453.The committee opined that the ISO 9453 :2020 is an extensive standard covering large number of varieties grades and is largely accepted in the solder industry and finally decided to adopt ISO 9453:2020 under dual numbering sy stem and harmonize our Indian Standard with ISO 9453:2020.

Item 12 IMPLEMENTATION OF INDIAN STANDARDS

12.1 The committee has noted the information given in item 12 of the agenda of the meeting. The Chairman has advised the members to promote the usage of the Indian standards formulated by the committee in their respective organizations.

Item 13 R&D PROJECTS FOR ESTABLISHMENT/REVISION OF INDIAN STANDARDS

13.1 The committee has noted the information as given in item 13 of the agenda of the meeting and after deliberation requested members that all the standards which are taken up for revision should be taken as action research project which should be a kind of literature survey or imperical data survey

Item 14 LATEST INITIATIVES TAKEN BY BIS:

14.1 The committee has noted the information as given in item **14.1** to **14.7.2** of the agenda of the meeting and the plan presented thereof in the rolling annual action plan.

14.2 The committee has noted the information as given in item **14.7.3** of the agenda of the meeting with regards to tentative schedule of the meetings and after deliberation decided that the final place and mode for next meeting shall be decided in concurrence with the chairman of the MTD9 Technical Committee.

14.3 The Committee noted the information given in **Item 14.9 and 14.10** of the agenda of this meeting and after deliberation requested committee members to provide the details of National and International events to be participated and Scientific Journals/Magazines to be subscribed which would be beneficial for standardization, getting information of stakeholders and new subjects /areas for standardization.

15.1 The committee noted the information given in Item

ITEM 15 ANY OTHER BUSINESS

15.1 The committee noted the information given in Item 15.1 of the Agenda and after deliberation appreciated the approach of BIS on creating the additional mailing list for receiving the wide circulation drafts etc , requested the member secretary to share the format listing out different categories of metals and share the same with members, who would provide the contact details like email address, organization, name and Phone numbers of the technical persons dealing with that area/field and the same shall be added in the additional mailing list of BIS.

The committee further while deliberating on the topic of lithium requested the Member Secretary to create a separate panel for lithium under the title “Panel-7 Lithium” and write to the CECRI and NML for getting the nominations for relevant persons for working in the standardization in the field of lithium mining, concentration, extraction, separation and conversion to useful lithium compounds/materials (including oxides, salts, metals, master alloys, lithium-ion battery materials, etc.) , standards related to terminology, technical conditions of delivery to overcome transport difficulties, unified testing and analysis methods to improve the general quality of lithium products.

15.2 The meeting ended with a vote of thanks by the Member Secretary to the chairperson and other members of the technical committee.