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BUREAU OF INDIAN STANDARDS

MINUTES

Name of theCommittee	No. of Meeting	Day	Date	Tim e	Venue
Industrial Process Measurement and Control, ETD 18 Sectional Committee	**20th**	**Tuesday**	**23rd July 2024**	**10:30 AM**	**Hybrid Mode**

CHAIRMAN: Shri Rajiv Gupta **MEMBER SECRETARY**: Ms. Ankita Tripathi

The list of attendees is given below:

Sl. No.	Organization	Member Name	Mode of Participation
1.	In Individual Capacity	Shri Rajiv Gupta *(Chairperson)*	Physical Mode
2.	Member Secretary, BIS	Mrs. Ankita Tripathi, Sc. C,	Physical Mode
3.	Engineers India Limited, New Delhi	Shri Anindyo Ray	Physical Mode
4.	ABB India Limited, Bengaluru	Shri Hemant Gupta	Virtual Mode
5.	Bharat Heavy Electrical Limited, New Delhi	Shri T. Sreedhar	Virtual Mode
6.	Bureau of Energy Efficiency, New Delhi	Shri Bibek Ranjan Patnaik	Virtual Mode
7.	Bosch Limited, Bengaluru	Shri Prashant Katkar	Virtual Mode
8.	CSIR - National Physical Laboratory, New Delhi	Dr. Anshul Varshney	Virtual Mode
9.	Elico Limited, Hyderabad	Shri Vamsi Rudraraju	Virtual Mode
10.	Electronics Corporation of India Limited, Hyderabad	Shri Hardev Singh	Virtual Mode
11.	Finder India Private Limited, Delhi	Dr. Ashish Manchanda	Virtual Mode
12.	Fluid Control Research Institute, Palakkad	Shri M P Dhanya	Virtual Mode
		Shri M. Suresh	Virtual Mode
13.	MN Dastur and Company Private Limited, Kolkata	Shri Debasish Ghosh	Virtual Mode
14.	FORBES	Shri Tushar A. Nazare	Virtual Mode
15.	MECON Limited, Ranchi	Shri Prabir Kumar Mai	Virtual Mode
		Shri Sujit Mandal	Virtual Mode
16.	Oil and Natural Gas Corporation Limited, New Delhi	Shri C.R. Raju	Virtual Mode
17.	Steel Authority of India Limited (SAIL), New Delhi	Shri Atanu Roy	Virtual Mode
		Shri Ashish Jha	Virtual Mode
18.	Rashtriya Ispat Nigam Limited, Visakhapatnam	Shri P Murali Mohan Kumar	Virtual Mode
19.	Rockwin Flowmeter India Private Limited, Chennai	Shri Shankar Mathur	Virtual Mode

Item 0 WELCOME AND OPENING REMARKS BY THE CHAIRMAN

Shri Rajiv Gupta, Chairperson, ETD 18 welcomed all the members for the 20th meeting of the Industrial Process Measurement and Control, ETD 18 Sectional Committee. He appreciated the progress of work undertaken by the committee and requested the members to participate proactively in the work of the committee.

Member Secretary, Ms. Ankita Tripathi extended a warm welcome to all the members present and wished for a fruitful discussion in the meeting.

The meeting started with a brief introduction from all the members.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

In view of no comments, the committee confirmed the minutes of the last meeting (19th meeting) of the Industrial Process Measurement and Control, ETD 18, Sectional Committee held online on 15.11.2023.

Item 2 COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 The committee noted the present composition of the Industrial Process Measurement and Control, ETD 18, Sectional Committee as given at Annexure 1 of the agenda.

It was observed that many organizations have two alternate members nominated in the committee. ABB India Limited, BHEL, BEE, ELICO Ltd to inform BIS the updated the nomination with one principle and one alternate member only.

2.2 Balance in Composition, Effective Nominations, and Involvement of New Talent and Young Professionals.
The committee noted the information. Member secretary informed that the committee lacks representation from the academia and requested the members to suggest academic institutions specialized in the field and willing to contribute towards standardization in the field so that they may be approached for cooption in the committee.
Shri Ashish Manchanda from Finder India informed that he would approach few relevant academic institutions towards cooption in the committee.

2.3 Request for co-option received:

SI. No	Name	Organization	Decision of the committee.
1.	Dr. Awadhesh Kumar, Assistant Professor Electrical Engineering	Madan Mohan Malaviya University of Technology Gorakhpur	The committee reviewed the profile and **agreed to coopt Dr. Awadhesh Kumar in the committee.**
2.	Souradeep Mitra	Design Engineer	The committee reviewed the profile and discussed that it is not relevant with respect to the subject of the committee. The committee decided not to coopt Mr. Souradeep Mitra in the committee.

2.4Status of participation of members in the previous two meetings inviting suggestions for improvement
The committee noted the information.

2.5. Creation of working panels:
It was informed that a lot of standards under ETD 18 sectional committee are due for review as given in Annexure 3 and Annexure 5 of the agenda which include standards mainly on electric furnaces and Temperature Measurement. It was decided to create working panels of experts in these areas to review the standards due for revision and look into other issues on the subject.

Based on deliberation in the committee, the following working Panels were constituted:

A. Panel on Temperature Measurement:

Scope: To review the documents and Indian standards on Temperature Measurement under ETD 18, Industrial Process Measurement and control Sectional Committee.

Composition:

i. Expert from EIL(to be nominated by EIL)
ii. Shri Prabir Kumar Mai(MECON Limited)
iii. Shri M P Dhanya, FCRI
iv. Expert to be coopted from Pyro Electric Pvt. Ltd, India which is a major Manufacturer of temperature measurement products in India.
v. Expert from SAIL(To be nominated by SAIL)

B. Panel on Electric Furnaces:

Scope: To review the documents and Indian standards on Electric Furnaces under ETD 18, Industrial Process Measurement and control Sectional Committee.

Composition:

i. Expert from Rashtriya Ispat Nigam Limited(RINL)(To be coopted by RINL from Steel Melt Shop(RINL))
ii. Expert from MECON Limited(To be coopted from Mecon from Furnace Section of Mecon)
iii. Expert from SIEMAG, Gurgaon which is a leading Manufacturer in the field

Cooption request for inclusion of the above experts in the panel (who are not the members of the committee at present) to be sent to the organizations accordingly.

Item 3 ACTION ARISING OUT OF PREVIOUS MEETING

SI. No.	Item/ Subject	Decision Taken in the last meeting	Action/ Remarks	
1	Co-option	During the previous meetings, it was decided to coopt the following organizations in the committee: i. Pyrotech Electronic Pvt. Ltd ii. Institute of Design of Electrical Measurement Instrument Mumbai. iii. Reliance India Ltd, Mumbai. Shri Nandakumar to share contact details of Institute of Design of Electrical Measurement Instrument Mumbai and Reliance India Ltd, Mumbai. Shri Anindyo Ray to share contact details of the Pyrotech Electronic Pvt. Ltd. Cooption letters have been sent.	Nomination Awaited from the organizations. The committee to suggest relevant contact details to approach for Cooption	Cooption from the Pyrotech Electronic Pvt. Ltd, Institute of Design of Electrical Measurement Instrument Mumbai. And Reliance India Ltd, Mumbai to be followed up. Dr. Ashish Manchanda and Shri Anindyo Ray to share the relevant contact details.

	Revision of the IS 9334 : 1986 and IS 8935 : 1985	The committee decided to adopt and wide circulate the IEC 61010-2-202 and 61010-1: 2010 It was also decided to send the email to relevant Industries to check whether they are referring the IS 9334: 1886 and IS 8935: 1985 or following the IEC 61010-2-202.	IEC 61010-2-202:2020 is under Printing.	The committee noted the information.
2		It was decided to align the following Indian Standards with the equivalent IEC standards and wide circulate them for the period of 2 Months. i. IEC 60519-4: 2021 Safety in installations for electro-heating and electromagnetic processing - Part 4: Particular requirements for arc furnace installations(Superseding IS 9080 (Part 4): 1981) ii. IEC 60240-1: 1992 Characteristics of electric infra-red emitters for industrial heating - Part 1: Short wave infra-red emitters(Superseding IS 10098: 1982) iii. IEC 60946: 1988 Binary direct voltage signals for process measurement and control systems(Superseding IS 12556: 1988) iv. IEC 60239:2005 :Graphite electrodes for electric arc furnaces - Dimensions and designation(Superseding IS 9050 : 1979) v. IEC 60779:2020 "Installations for Electroheating and Electromagnetic Processing – Test Methods for Electroslag Remelting Furnaces. (Superseeding IS 11692: 1986:Methods of tests for electro - Slag remelting furnaces)	The documents were vide circulated and No comments have been received. The documents may be finalized for printing.	The committee noted the information.
3	Status of Finalized Standards	The committee decided to finalize the following wide circulated drafts as no comments were received during the wide circulation period.		The committee noted the information.

		i. Doc ETD 18 (22819): Revision of IS 10189 : Part 2 : Sec 1: 1993: Industrial-process control valves - Part 2-1: Flow capacity - Sizing equations for fluid flow under installed conditions	Published	
		ii. Doc ETD 18 (22822):Revision of IS 10215: 1982: Methods of tests for submerged - Arc furnaces	Published	
		iii. Doc ETD 18 (22817) :Revision of IS 8493: 1977:Analogue DC voltage signals for industrial process measurement and control systems	Under Publication.	
		iv. Doc ETD 18 (22557):IS/IEC 61010-2-202: 2020 Safety requirements for electrical equipment for measurement control and laboratory use - Part 2-202: Particular requirements for electrically operated valve actuators	Under Publication.	
		v. Doc ETD 18 (22823):IS/IEC 60519-8: 2020:Safety in installations for electroheating and electromagnetic processing Part 8: Particular requirements for electroslag remelting furnaces(Superseding IS 11712:1986)	Published	
		vi. Doc ETD 18 (22818):Revision of IS 7722: 1975:Analogue pneumatic signals for process control systems	Published	
		vii. Doc ETD 18 (22821):Revision of IS 12306: 1987:Methods of test for direct arc furnaces	Published	
		viii. Doc ETD 18 (22816):Revision of IS 13673 : Part 4: 1998:Expression of performance of electrochemical analyzers: Part 4 standard for measuring oxygen dissolved in water	Published	

		ix. Doc ETD 18 (22824):Revision of IS 13263: 1992:Test methods of plasma equipment for electroheat applications	Published	

Item 4 PRESENT POSITION OF WORK

The committee noted the present programme of work of **Industrial Process Measurement And Control, ETD 18, Sectional Committee** as given in annexure 2 of the agenda.

Item 5 APPROVAL OF DRAFT INDIAN STANDARDS FOR FINALIZATION

The following documents were wide circulated and no comments have been received on the same.

S. No	New Document	Superseding IS	Decision of the committee
i.	ETD/18/24118 Identical to : IEC 60519-4: 2021 Safety in installations for electro-heating and electromagnetic processing - Part 4: Particular requirements for arc furnace installations	Superseding IS 9080 (Part 4): 1981): Safety requirements in electro - Heat installations: Part 4 particular requirements for arc furnace installations	In view of no comments, the committee finalized the documents for printing.
ii.	ETD/18/24119 Identical to: IEC 60240-1: 1992 Characteristics of electric infra-red emitters for industrial heating - Part 1: Short wave infra-red emitters	Superseding IS 10098: 1982: General requirements for electric infra - Red emitters for heating purposes	In view of no comments, the committee finalized the documents for printing.
iii.	ETD/18/24120 Identical to: IEC 60946: 1988 Binary direct voltage signals for process measurement and control systems	Superseding IS 12556: 1988: Specification for binary direct voltage signals for process measurement and control systems	In view of no comments, the committee finalized the documents for printing.
iv.	ETD/18/24122: Identical to: IEC 60239:2005 :Graphite electrodes for electric arc furnaces - Dimensions and designation	Superseding IS 9050 : 1979: Nominal dimensions of cylindrical machined graphite electrodes with threaded sockets and connecting pins for use in electric arc furnaces	In view of no comments, the committee finalized the documents for printing.
v.	ETD/18/22820 Identical to :IEC 60779:2020 “Installations for Electroheating and Electromagnetic Processing – Test Methods for Electroslag Remelting Furnaces	Superseeding IS IS 11692: 1986:Methods of tests for electro - Slag remelting furnaces)	In view of no comments, the committee finalized the documents for printing.

Item 6 REVIEW/REAFFIRMATION OF INDIAN STANDARDS

6.1 Review of Standards - Taking up Revision of pre-2000 standards:
The status of Pre-2000 standards was reviewed by the committee. The decision of the committee is placed at **ANNEXURE-1.**

6.2 Reaffirmation of Indian standards:
The committee reviewed the standards under ETD 18 that are due for reaffirmation. The decision of the committee is

placed at **ANNEXURE 2.**

Item 7 NEW SUBJECTS TAKEN UP FOR STANDARDIZATION

7.1 New Subjects
The Committee was requested to suggest new subjects that can be taken up for standardization in the years 2024-25.

ITEM 8 INTERNATIONAL ACTIVITIES

8.1 The committee noted the information.

8.2 The committee noted the information.

8.3 The committee noted the details of voting for **IEC/TC 65, SC 65A, SC 65B and IEC/TC 27** since last meeting.

All the members were informed that they are required to review and mandatorily provide their comments on the IEC documents being circulated for comments in the committee, since as a P member we have obligation to cast ballot on each and every document received from the concerned IEC technical committee.

The members were also requested to review the structure of the **IEC/TC 65, SC 65A, SC 65B and IEC/TC 27** and look into the possibility of nominating experts in the working groups of the committees. The members to nominate experts in the working groups having relevant experience in the field and who are willing to contribute actively in the work of the IEC committee.

8.4 The members were informed that the next plenary meeting of IEC TC 65 is scheduled to be held on 13.09.2024 at Calgary, Canada in Face-to-face and Virtual mode and BIS is in the process of preparing a tentative list of delegates for participation in the above meeting.

Interested memebers from the Sectional Committee, ETD 18 who are actively participating were requested to provide their nomination along with the details of technical comments given/proposed to be given on the IEC documents published by TC 65 relevant for India.

ITEM 9 PROCESS REFORMS IN BIS

a) The Annual Programme of standardization(APS) for the year 2024-25

The committee noted the APS for the year 2024-25 for ETD 18.

b) Compostion of the sectional Committee

The committee noted the information.

c) Smart and Efficient SCs

The committee noted the information

d) Annual Calendar of Technical Committee meetings

The committee noted the information

e) Closer examination of the New Work Item proposals received from IEC.

The committee noted the information

f) The measures to ensure effective participation by Indian experts in IEC.

The committee noted the information

g) National and International events to be participated

The committee noted the information.

h) Scientific journals and periodicals to be subscribed

The committee noted the information .

ITEM 10 MEMORANDUM OF UNDERSTANDING WITH EMINENT ACADEMIC INSTITUTES

The committee noted the information

ITEM 11 GUIDELINES FOR RESEARCH & DEVELOPMENT PROJECTS FOR FORMULATION AND REVIEW OF STANDARDS FOR INCLUSION OF EMPIRICAL DATA AND INSIGHTS.

11.1 The committee noted the information

11.2 The committee noted the information

11.3 The committee noted the information of the R and D project under ETD 18 sectional committee granted to NIT, Trichy to support the revision of the following standards

i. IS 2053 : 1974: Specification for thermocouple pyrometers
ii. IS 10639 : 1983: Specification for disappearing filament type, optical pyrometer

ITEM 12 DATE AND PLACE FOR THE NEXT MEETING

The committee noted the annual meeting calendar of ETD 18.

Item 13 ANY OTHER BUSINESS

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

ANNEXURE – 1

REVIEW OF PRE-2000 STANDARDS:

Pre 2000 carried over:

S. No	IS	Title	Status	Decision/Deliberation by the committee.
1	IS 10098 : 1982	General requirements for electric infra - Red emitters for heating purposes Being Revised with Identical adoption of IEC 60240-1: 1992: Characteristics of electric infra-red emitters for industrial heating - Part 1: Short wave infra-red emitters	Completed WC	The committee noted the information.
2	IS 12556 : 1988	Specification for binary direct voltage signals for process measurement and control systems Being Revised with Identical adoption of IEC 60946: 1988 Binary direct voltage signals for process measurement and control systems	Completed WC	The committee noted the information.

3	IS 9050 : 1979	Nominal dimensions of cylindrical machined graphite electrodes with threaded sockets and connecting pins for use in electric arc furnaces	Completed WC	The committee noted the information.
4	IS 9080 (Part 4) : 1981	Safety requirements in electro - Heat installations: Part 4 particular requirements for arc furnace installations Being revised with Identical adoption of IEC 60519-4: 2021: Safety in installations for electro-heating and electromagnetic processing - Part 4: Particular requirements for arc furnace installations	Completed WC	The committee noted the information.
5	IS 11692 : 1986	Methods of tests for electro - Slag remelting furnaces Being revised with Identical adoption of IEC 60779:2020 “Installations for Electroheating and Electromagnetic Processing – Test Methods for Electroslag Remelting Furnaces	Completed WC	The committee noted the information.
6	IS 8493 : 1977	Analogue DC voltage signals for industrial process measurement and control systems Being Revised with Identical Adoption of IEC 60381-2:1978:	Under Publication	The committee noted the information.
7	IS 12579 : 1988	Specification for base metal mineral insulated thermocouple cables and thermocouples	Equivalent IEC standard: IEC 61515: 2016 Mineral insulated metal sheathed thermocouple cables and thermocouples	The committee decided to harmonize IS 12579:1988 with adoption of equivalent IEC standard, IEC 61515: 2016.
8	IS 8992 : 1978	Test methods for induction furnaces with submerged channels	--	Proposed to be withdrawn as the scope may already be covered in IS/IEC 60519-3: 2005. The committee decided to circulate the standard to the committee and Panel on Electric furnaces to study and confirm whether IS 8992 : 1978 can be withdrawn, if the requirements are already covered in IS/IEC 60519-3 : 2005
9	IS 9334 : 1986	Specification for electric motor operated actuators (First Revision)	Given in Annexure-4 of the agenda	**The committee decided to withdraw IS 9334: 1986 and superseded it with IS/ISO 22153:2020.** Further, the committee decided to circulate IS/ISO 22153:2020 to ETD 18

				committee members for any comments which needs to be incorporated in the standard and that needs to be taken up to ISO.
10	IS 10639 : 1983	Specification for disappearing filament type, optical pyrometer	R and D in progress	The committee noted the information
11	IS 2053 : 1974	Specification for thermocouple pyrometers (First Revision)	R and D in progress	The committee noted the information

Pre-2000 Current:

S.No	IS	Title	Status	Decision/Deliberation by the committee.
12	IS 13673 (Part 5) : 1999	Expression of performance of electrochemical analyzers: Part 5 oxidation - Reduction potential or redox potential	Based on IEC standard: IEC 60746-5:1992 Latest IEC standard: IEC 60746-5:1992	The committee deliberated that there is no technological upgradation in the subject and also the base IEC standards has since not been revised. **The committee decided to reaffirm the current standard IS 13673 (Part 5) : 1999.**
13	IS 7728 : 1984	Specification for analogue dc current signals for process control systems (First Revision)	Based on IEC Darft 65A IEC 381(1971) and IEC 381(A))(1975) Current IEC standard: IEC 60381-1:1982	It was decided that Shri Ashish Manchanda from Finder India Private Limited, Delhi to examine the IS 7728 : 1984 and Current IEC standard: IEC 60381-1:1982 and submit a report whether IS 7728 : 1984 can be revised in line IEC 60381-1:1982 or any other updated document with respect to the subject.
14	IS 9080 (Part 2/Sec 1) : 1979	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 1 protection - In direct resistance heating installations	Based on IEC 519-2(1975) which was revised to **IEC 60519-2:2006**: Safety in Electroheat Installations – Part 2: Particular requirements for resistance heating equipmen.	The committee deliberated that since the base IEC standard on resistance heating equipment has been withdrawn, it needs to be studied whether such equipment or technology is being used as on date or is obsolete. It was decided to allot the standard to the working panel on Electric Furnaces to

			At present, IEC 60519-2:2006 has been withdrawn	examine and put up the report as to whether the technology is being used or is obsolete and whether the standard can be withdrawn.
15	IS 9080 (Part 2/Sec 2) : 1980	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 2 protection in indirect resistance heating installations	Based on IEC 519-2(1975) which was revised to **IEC 60519-2:2006**: Safety in Electroheat Installations – Part 2: Particular requirements for resistance heating equipmen. At present, IEC 60519-2:2006 has been withdrawn	The committee deliberated that since the base IEC standard on resistance heating equipment has been withdrawn, it needs to be studied whether such equipment or technology is being used as on date or is obsolete. It was decided to allot the standard to the working panel on Electric Furnaces to examine and put up the report as to whether the technology is being used or is obsolete and whether the standard can be withdrawn.
16	IS 9080 (Part 2/Sec 3) : 1981	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 3 protection in potassium and sodium nitrate nitrite bath furnaces	Based on IEC 519-2(1975) which was revised to **IEC 60519-2:2006**: Safety in Electroheat Installations – Part 2: Particular requirements for resistance heating equipmen. At present, IEC 60519-2:2006 has been withdrawn	The committee deliberated that since the base IEC standard on resistance heating equipment has been withdrawn, it needs to be studied whether such equipment or technology is being used as on date or is obsolete. It was decided to allot the standard to the working Panel on Electric Furnaces to examine and put up the report as to whether the technology is being used or is obsolete and whether the standard can be withdrawn.
17	IS 9080 (Part 2/Sec 4) : 1981	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 4 protection in installations used for drying varnishes and other similar products	Based on IEC 519-2(1975) which was revised to **IEC 60519-2:2006**: Safety in Electroheat Installations – Part 2: Particular requirements for resistance heating equipmen. At present, IEC 60519-2:2006 has been withdrawn	The committee deliberated that since the base IEC standard on resistance heating equipment has been withdrawn, it needs to be studied whether such equipment or technology is being used as on date or is obsolete. It was decided to allot the standard to the working panel on Electric Furnaces to examine and put up the report as to whether the technology is being used or is obsolete and whether the standard can be withdrawn.
18	IS 10122 : 1982	Methods of tests for crucible induction furnaces	--	Proposed to be withdrawn as the scope may already be

				covered in IS/IEC 60519-3: 2005. The committee decided to circulate the standard to the committee and the working panel on Electric furnaces to study and confirm whether IS 10122: 1982 can be withdrawn, if the requirements are already covered in IS/IEC 60519-3: 2005.
19	IS 12434 : 1988	Specification for coating/plating thickness tester, destructive type	**ARP** has been allotted to BIS officers to review the IS and submit a report.	The committee noted the information. The committee also discussed that the requirements of the standard are already covered in the updated standard, IS 14126 : 2019 /ISO 2177 : 2003 (Metallic Coatings — Measurement of Coating Thickness — Coulometric Method by Anodic Dissolution) The committee decided that the standard may be circulated to the committee to examine and confirm if IS 12434:1988 may be withdrawn and superseded by IS 14126 : 2019 /ISO 2177 : 2003.
20	IS 12554 (Part 1) : 1988	Specification for non - Destructive coating thickness testing instruments: Part 1 eddy current instruments	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.
21	IS 12554 (Part 2) : 1999	Specification for non - Destructive coating thickness testing instruments: Part 2 magnetic instruments	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.
22	IS 13211 : 1991	Vapour pressure dial - Type thermometer - Specification	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.
23	IS 8935 : 1985	Specification for electric solenoid operated actuators (First Revision)	ARP	**The committee decided to withdraw the standard** since general safety and other important requirement for actuators are already covered in IS/ISO 22153:2020 and this standard covers design requirement which is obsolete and standard is not being used as on date.
24	IS 9021 : 1978	General test conditions for industrial electro - Heating equipment	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.

25	IS 9029 : 1978	Methods of tests for batch furnaces with metallic heating resistors	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.
26	IS 12555:1988	Guide for Signal Conditioning devices for Process Control	**ARP** has been allotted to BIS officers to review the IS and submit a report	The committee noted the information.

SL. No	IS	Title	Status	
27	IS 11222 : 1985	Specification for dial, scales and indexes for indicating analogue measuring instruments.		The standard deals with design and type of dials and scales used is differed types of instruments. Further, the standard is a secondary standard not being used directly and does not require any upgradation. Hence, **the committee decided to archive the standard.**
28	IS 12188 : 1987	Specification for electric direct arc melting furnaces		The committee decided to withdraw the standard as the scope of the standards is already covered in IEC 60519-4:2021. IEC 60519-4:2021 has already been wide circulated and finalized for publication as Indian standard by the committee is this meeting. In view of the above, **the committee decided to withdrawn the standard once IEC 60519-4:2021 get published as Indian standard**.
29	IS 13122 (Part 1) : 1993	Transmitters for use in industrial process control systems - Specification: Part 1 methods for evaluating the performance	This standard is based on IEC 770:1984 which has been over a period of time replaced by the following series of IEC standards: IEC 62828-4:2020 IEC 62828-5:2020 IEC 62828-3:2018 IEC 62828-1:2017 IEC 62828-2:2017: Reference conditions and procedures for testing industrial and process measurement transmitters (Various Parts)	**The committee decided to archive the standard at present** since the base IEC has been replaced by New Series of IEC standards. Further, the IS standard(IS 13122 (Part 1) : 1993 and IS 13122 (Part 2) : 1991) and the IEC 62828 series of standards may be circulated to the following expert group decided by the committee: i. Shri Debasish Ghosh)(MN Dastur and Company Private Limited) ii. Shri Shankar Mathur(Rockwin Flowmeter India Private Limited) iii. Engineers India Limited, New Delhi iv. Yokogawa IA Technologies India Private Limited, Bengaluru v. Emerson India The group to make a comparative study of the IS standard and the latest IEC standard as indicated above and submit a report within 1 month focusing on the following factors: i. Whether the IS standard ((IS 13122 (Part 1) : 1993 and IS 13122 (Part 2) :
30	IS 13122 (Part 2) : 1991	Transmitters for use in industrial process control systems - Specification: Part	Same sl. no. 29 above	

		2 guidance for installation, inspection and routine testing		1991)) is relevant as on date, or needs updation/revision or archiving may be continued? ii. Whether the IEC 62828 series of standards may be considered for revision of (IS 13122 (Part 1) : 1993 and IS 13122 (Part 2) : 1991) and which parts of the IEC standards are relevant in the context?
31	IS 3624 : 1987	Specification for pressure and vacuum gauges (Second Revision)		The committee decided that experts group including the following: i. Shri M. Suresh from FCRI ii. EIL to study the standard and submit a report with respect to the following: i. Relevance and usage of the standard as on date ii. Whether the standard requires revision/updation. If so, what changes are required in the standard. iii. Any other updated standard based on which the standard can be revised, if required. The group to submit the report within 1 month.
32	IS 3944:1982	Method for determination of flow time by use of flow cups (First Revision)	Equivalent ISO: ISO 2431: 2019, Paints and varnishes — Determination of flow time by use of flow cups under	The committee discussed the standard is more specific to viscosity measurement. **The committee decided to transfer the standard to CHD** under the Paints, Varnishes and Related Products Sectional Committee.
33	IS 2806 : 1992	Thermometry electrical resistance guide (First Revision)	Latest standards on thermocouples published by ETD 18: i. IS 16923 (Part 1) : 2018/ IEC 60584-1 : 2013:Thermocouples Part 1 EMF Specifications and Tolerances ii. IS 16923 (Part 3) : 2023 IEC 60584-3: 2021:Thermocouples - Part 3: Extension And Compensating Cables - Tolerances And Identification System Other IEC standards available:	The committee discussed that the requirements of the these IS standards(Sl. No 33 to 37) may be already covered in the latest standards on thermocouple published by ETD 18 i.e. (IS 16923 (Part 1) : 2018/ IEC 60584-1 : 2013 and IS 16923 (Part 3) : 2023 IEC 60584-3: 2021). **The committee decided to archive these standards at present(Sl. No 33 to 37)** Further, it was decided to allot these standards to the working panel on temperature measurement to study the standards with respect to their relevance as on date, the coverage of their requirements in other updated published standards in the committee, standards that can be withdrawn or still need archiving and standards that need revision/updation. The Panel to submit its report within 1 month.
34	IS 7358 : 1984	Specification for thermocouples (First Revision)		
35	IS 8018:1976	Specification for platinum and platinum alloy wires for thermocouple elements		
36	IS 8495(part 1):1977	Specification for ceramic components for thermocouples and resistance thermometers Part 1 terminal blocks		
37	IS 8784:1987	Specification for thermocouple compensating cables (Second Revision)		

			IEC 62460:2008: Temperature - Electromotive force (EMF) tables for pure-element thermocouple combination	
38	IS 8824 (Part 2) : 1988	Specification for electrical moisture meters	Part 1 of the standard is looked after by FAD and has been recently revised by them as i.e. IS 8824 (PART 1) : 2022: Electrical Moisture Meters — Specification Part 1 Food Grains, Seeds and Flour The standard is issued in two parts. The second part of the standard (IS 8824 (Part 2) : 1988) is for jute (conductivity type) moisture meters and is under ETD 18	**The committee discussed and decided to transfer the standard to FAD.**
39	IS 2711 : 1979	Specification for direct reading pH meters (Second Revision)	The following updated standard has been published by ETD 18: IS 13673 (Part 2) : 2021: Expression of Performance of Electrochemical Analyzers Part 2 pH Value (First Revision)	The committee discussed the possibility of archiving the standard. The committee decided to circulate the standards to a expert group constituting the following organizations. i. Forbes ii. ABB India Limited iii. Yokogawa IA Technologies India Pvt. Ltd iv. EIL v. Emerson India The expert group to study the standards(IS 2711 : 1979, IS 4309 : 1979, IS 6804 : 1972) and submit a report focusing on the following factors: i. Coverage of requirement of IS 2711 : 1979, IS 4309 : 1979, IS 6804 : 1972) in the updated standard :IS 13673 (Part 2) : 2021 ii. Relevance and usage of the standards as on date
40	IS 4309 : 1979	Methods of measurement on direct reading PH meters (First Revision)		
41	IS 6804 : 1972	Specification for glass electrodes for direct reading pH meter		

				iii. Whether the standards requires revision/updation. If so, what changes are required in the standards. iv. Any other updated standard based on which the standards can be revised, if required. The group to submit the report within 1 month.

ANNEXURE-2

Standards Due for Reaffirmation

Reaffirmation carried over 2023-24:

S. No	IS Number	Title	Status	Decision of the committee.
1	IS 10189 (Part 2/Sec 2) : 1993	Industrial process control valves: Part 2 flow capacity: Sec 2 sizing equations for compressible fluid flow under lnstalled,conditions	Superseded by IS 10189 (Part 2/Sec 1) : 2024 (May be withdrawn)	The committee decided to withdraw the standard.
2	IS 12556 : 1988	Specification for binary direct voltage signals for process measurement and control systems	Being revised with identical adoption of IEC 60946: 1988 Binary direct voltage signals for process measurement and control systems(WC Completed)	The committee decided to reaffirm the standard till the revised standard gets published.
3	IS 13263 : 1992	Test methods of plasma equipment for electroheat applications	Being revised with identical adoption of IEC/TS 60680: 2008 (Under Print)	The committee decided to reaffirm the standard till the revised standard gets published.
4	IS 12434 : 1988	Specification for coating/plating thickness tester, destructive type	ARP	Already discussed as given in **Annexure 1**
5	IS 12554 (Part 1) : 1988	Specification for non - Destructive coating thickness testing instruments: Part 1 eddy current instruments	ARP	
6	IS 12554 (Part 2) : 1999	Specification for non - Destructive coating thickness testing instruments: Part 2 magnetic instruments	ARP	
7	IS 12555 : 1988	Guide for signal conditioning devices for process control systems		
8	IS 12579 : 1988	Specification for base metal mineral insulated thermocouple cables and thermocouples		

9	IS 13673 (Part 5) : 1999 IEC 60746-5 : 1992	Expression of performance of electrochemical analyzers: Part 5 oxidation - Reduction potential or redox potential		
10	IS 2711 : 1979	Specification for direct reading pH meters (Second Revision)		
11	IS 2806 : 1992	Thermometry electrical resistance guide (First Revision)		
12	IS 3624 : 1987	Specification for pressure and vacuum gauges (Second Revision)		
13	IS 4309 : 1979	Methods of measurement on direct reading PH meters (First Revision)		
14	IS 6804 : 1972	Specification for glass electrodes for direct reading pH meter		
15	IS 8018 : 1976	Specification for platinum and platinum alloy wires for thermocouple elements		
16	IS 8495 (Part 1) : 1977	Specification for ceramic components for thermocouples and resistance thermometers: Part 1 terminal blocks		
17	IS 8784 : 1987	Specification for thermocouple compensating cables (Second Revision)		

Reaffirmation(Current)

S. No	IS Number	Title	Latest IEC standard	Decision of the committee
1.	IS 2053 : 1974	Specification for thermocouple pyrometers (First Revision)		
2.	IS/IEC 61508-0 : 2005	Functional safety of electrical electronic/programmable electronic safety - Related systems: Part 0 functional safety and IEC 61508	IEC TR 61508-0:2005	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.

3.	IS/IEC 61508-1 : 2010 IEC 61508-1 : 2010	Functional Safety of Electrical / Electronic / Programmable Electronic Safety-Related Systems Part 1 General Requirements (First Revision)	IEC 61508-1:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
4.	IS/IEC 61508-2 : 2010	Functional safety of electrical/ electronic/programmable electronic safety - Related systems: Part 2 requirements for electrical/electronic/ programmable electronic safety related systems (First Revision)	IEC 61508-2:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
5.	IS/IEC 61508-3 : 2010	Functional safety of electrical/electronic/programma ble electronic safety-related systems : Part 3 Software requirements	IEC 61508-3:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
6.	IS/IEC 61508-4 : 2010	Functional safety of electrical/electronic/programma ble electronic safety-related systems : Part 4 Definitions and abbreviations	IEC 61508-4:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
7.	IS/IEC 61508-5 : 2010	Functional safety of electrical/electronic/programma ble electronic safety - related systems : Part 5 Examples of methods for the determination of safety integrity levels	IEC 61508-5:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
8.	IS/IEC 61508-6 : 2010	Functional safety of electrical/electronic/programma ble electronic safety-related systems : Part 6 Guidelines on the applications of IEC 61508-2 and IEC 61508-3	IEC 61508-6:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
9.	IS/IEC 61508-7 : 2010	Functional safety of electgrical/electronic/programm able electgronic safety-related systems : Part 7 Overview of techniques and measures	IEC 61508-7:2010	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
10	IS/IEC 61511-1 : 2017	Functional safety - Safety instrumented systems for the process industry sector : Part 1 Frameworks, definitions, system, hardware and application programming requirements	IEC 61511-1:2016+AMD1:2017	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.

11	IS/IEC 61511-2 : 2016	Functional safety - Safety instrumented systems for the process industry sector : Part 2 Guidelines for the application	IEC 61511-2:2016	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
12	IS/IEC 61511-3 : 2016	Functional safety - Safety instrumented systems for the process industry sector: Part 3 guidance for the determination of the required safety integrity levels (First Revision)	IEC 61511-3:2016	The committee reviewed the status of the standard and **decided to reaffirm the standard** as the standard is identical adoption of IEC standard and IEC standard has since not been revised.
13	IS/IEC 62264-2 : 2004	Enterprise - Control system integration: Part 2 object model attributes	IEC 62264-2:2013	The committee decided to revise IS/IEC 62264-2 : 2004 inline with the revised standard IEC 62264-2:2013. Further, the committee decided to reaffirm IS/IEC 62264-2 : 2004 till the revised standard gets published.