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**AGENDA OF MEETING**

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| **BUREAU OF INDIAN STANDARDS**  **(METALLURGICAL ENGINEERING DEPARTMENT)** | | | | |
| **Name of the Committee** | **No. of Meeting** | **Day & Date** | **Time** | **Venue/Mode** |
| Non-Destructive Testing Sectional Committee, MTD 21 | 31st Meeting | Monday,  21-06-2024 | 1100 AM | Hybrid Mode- Copper Room, Manak Bhawan, BIS, New Delhi  **Meeting link :**  <https://bismanak.webex.com/bismanak/j.php?MTID=mb67137c3c9c6dd8a4f5ca4f0f6183852>  Friday, July 19, 2024 11:00 AM | 2 hours | (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi  Meeting number: 2510 641 6951  Password: 12345 (12345 when dialing from a video system)  Join by video system  Dial 25106416951@bismanak.webex.com  You can also dial 210.4.202.4 and enter your meeting number.  Join by phone  +65-6703-6949 Singapore Toll  Access code: 251 064 16951 |

**Chairman:** Dr B. Venkatraman **Member Secretary:** Kunal Kumar

**Item 0 GENERAL**

**0.1 Opening Remarks by BIS**

**0.2 Opening Remarks by the Chairman**

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

* 1. The minutes of the 30th meeting of Non-Destructive Testing Sectional Committee, MTD 21 held on 20.12.2023 were circulated through portal and email on 31/01/2024. No comments received.

The committee may consider and approve the minutes of the previous meeting.

**Item 2 R&D Guidelines and TOR for R&D Project**

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

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**2.2** It has been decided that all the standard taken up for revision/new standard under development, shall be done by taking it up as a R&D project. The committee may decide on the R & D projects which can be taken up by the committee members/ Educational Institution having MoU with BIS for which funding shall be done by BIS.

##### **Item 3 ROLLING ANNUAL ACTION PLAN FOR THE YEAR 2023-24**

**3.1** Following documents are pending for printing:

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| --- | --- | --- | --- | --- |
| Sl No. | IS No. | Doc No. | IS Title | Current status |
|  | New | MTD/21/19953 | Non-destructive testing Eddy Current Testing. Determination of Electrical Conductivity of Non-magnetic Metals | Validation documents are required before sending the finalized draft for printing.  The committee may please deliberate and decide. |
|  | New | MTD/21/21512 | Micro-focal radiography for industrial components recommended practices | Under print  The committee may please note. |

**3.2** Following documents are pending for WC:

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| --- | --- | --- | --- | --- | --- |
| Sl No. | IS No. | IS Year | IS Title | Decision taken by the Committee in last Meeting | Current status |
|  | New | MTD/21/17491 | Non-Destructive Testing of Steel Wires Automated Eddy Current Testing of Steel Wires for Detection of Surface Imperfections. | **Online panel**  **Meeting with the concerned members- Shri Bharar Biradar, Dr. S T Arasu and Dr. Arvind kumar within 1 month. MS will coordinate. Document to be finalized during the meeting.**  **The document received shall be sent for WC for 2 months.** | **Panel meeting held on 16/03/2024. Modified draft is attached**  **The committee may please deliberate and decide.** |
|  | New | MTD/21/17538 | Non-Destructive Testing of Bolts Studs And Fasteners | **The committee in the 29th meeting requested the following members to go through Appendix 4 and add their inputs w.r.to inclusion of the size of bolts in the scope of the standard and comments of Dr. Arumugam and submit final draft to BIS within 1 month for WC –**  **a.Dr. Arumugam**  **b. A shunmugavel ---(deputy head QC materials division, vssc, isro) as convener**  **c. Dr. Saratchandaran**  **d. Dr. S T Arasu**  **e. Dr P PNanekar**  **f. Dr. Arbinda Kumar.**  **During the last meeting committee requested the concerned members and MS to conduct a panel meeting and finalize the draft during that meeting.** | **No panel meeting done so far. Panel meeting to be done.**  **The committee may please note.** |

**3.3** Following Standards due for review in 2023-24 were reaffirmed. The committee may please note.

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| Sl No. | IS No. | IS Title |
| 1 | IS 12666 : 2018 | Performance assessment of ultrasonic flaw detection equipment (First Revision) |
| 2 | IS 12889 : 2018 | Performance evaluation of materials used for liquid penetrant test (First Revision) |
| 3 | IS 3657 : 2018 | Specification for radiographic image quality indicators (Second Revision) |
| 4 | IS 16979 : 2018 | Guidelines for visual inspection using borescopes and video scopes |
| 5 | IS 16241 : 2018 | Real-time radioscopic examination of weldments |
| 6 | IS 17069 (Part 1) : 2019  ISO 14096-1:2005 | Non - Destructive testing - Qualification of radiographic film digitization systems: Part 1 definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control |
| 7 | IS 17069 (Part 2): 2019  ISO 14096-2 : 2005 | Non - Destructive testing - Qualification of radiographic film digitization systems: Part 2 minimum requirements |

**3.4** Following reaffirmed Standards from above table on which further action is required:

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| --- | --- | --- | --- | --- | --- |
| Sl No. | IS No. | IS Title | Decision taken by the Committee in last Meeting | Action taken on last decision | Decision taken by the committee |
| 1 | IS 12666 : 2018 | Performance assessment of ultrasonic flaw detection equipment (First Revision) | We have received comments on parts of IS 12666 which is placed below-    The committee after deliberation requested UST Panel -3 to go through the comment, review the standard and submit their comment/recommendations/ revised draft within 1 month time.  **Committee requested member secretary to provide copy of IS 12666 to the panel 3 and to do an online panel meeting within 1 month.** | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Copy of IS 12666 was provided to the panel. Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| 2 | IS 12889 : 2018 | Performance evaluation of materials used for liquid penetrant test (First Revision) | **Comment received from Mr. Nerukar vide email dated 18.12.2023. Comment is enclosed.**    Committee requested panel 2 to conduct a panel meeting to discuss the above comment and submit report within 1 month. | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| 3 | IS 3657 : 2018 | Specification for radiographic image quality indicators (Second Revision) | In 29th meeting, The committee after deliberation alloted this standard for review to Dr. Menaka M from panel 5. Committee also requested Dr. Menaka to submit her comment/ recommendations/ revised draft within 1 month time.  During 30th meeting, **Dr. Menaka informed that she has reviewed will submit shortly.** | **No review report received.**  **Committee may please deliberate and decide.** |  |
| 4 | IS 16241 : 2018 | Real-time radioscopic examination of weld ments | **Committee decided to conduct a Panel meeting within 1 month co-ordinated by MS.** | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached.**    **Dr. Menaka informed that Shri Arumugam has made some corrections in figure 1. Shri Arumugam informed that he will submit the corrected document.**  **Panel decided to circulate the corrected document among committee members for comment.**  **Corrected documents not received so far. The committee may please deliberate and decide.** |  |
| 5 | IS 17069 (Part 1) : 2019  ISO 14096-1:2005 | Non - Destructive testing - Qualification of radiographic film digitization systems: Part 1 definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control | **Committee decided to conduct a Panel meeting within 1 month co-ordinated by MS** | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached.**    **Dr. Menaka informed that there are no technical changes in the standard but there is change in format. Printed format is same as in ISO document. Format should be in line with the Indian standard.**  **The committee may please deliberate and decide.** |  |
| 6 | IS 17069 (Part 2): 2019  ISO 14096-2 : 2005 | Non - Destructive testing - Qualification of radiographic film digitization systems: Part 2 minimum requirements | **Committee decided to conduct a Panel meeting within 1 month co-ordinated by MS** | **-do-** |  |
| 7 | IS/ISO 3057 : 1998 | Non - Destructive testing - Metallographic replica techniques of surface examination | **Committee requested Shri Kalesh Nerukar to examine and conduct a meeting of panel 2 consist of Dr. Menaka as well. Within 1 month.** | **Panel meeting not held so far. Panel meeting to be done.**  **The committee may please note and decide.** |  |

**Item 4 ANNUAL CALENDAR OF TECHNICAL COMMITTEE MEETINGS**

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| --- | --- | --- |
| **Meetings planned for FY 2024-25** | **Date & Time** | **Venue** |
| First Meeting | 19 July 2024, 11:00 AM | BIS HQ (Manak Bhavan), New Delhi |
| Second Meeting | 22-10-2024, 10.30 AM | Kalpakkam |
| Third Meeting | 24-03-2025, 11.00 AM | BIS HQ (Manak Bhavan), New Delhi |

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

**Item 5 action taken report**

Summary of Actions taken on decisions of the last meeting of Non-Destructive Testing Sectional Committee, MTD 21 is placed below:

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| --- | --- | --- | --- | --- |
| **SlNo.** | **Subject** | **Decision taken by the Committee in last Meeting** | **Actions taken on the decisions of the last meeting** | **Decision taken** |
| **1** | MTD 21(05171) (**Revision of IS 11655:1986 by adoption of ISO 10893-3)**  ISO 10893-3 :2011 Non-destructive testing of steel tubes —Part 3:Automated full peripheral flux leakage testing of seamless and welded (except submerged arc-welded) ferromagnetic steel tubes for the detection of longitudinal and transverse imperfections.    Amendment 1: Published in 2019 is about "Change of dimensions of the reference notch"  Amendment 2: Published in 2020 is about "Change in acceptance criteria” | **During 29th meeting, the committee requested Panel 2 members - Mr. Kalesh Nerukar and Mr. Dinesh Gupta to review and submit their views/comments/ recommendation positively within 1 month.**  **If the members agreed to adopt ISO 10893-3, the document shall be sent for WC for 2 months.**  **Comment received from Mr. Nerukar vide email dated 18.12.2023. Mr. Nerukar has suggested for adoption of ISO 10893-3:2011 with comparison report. Copy of email is attached.**    **In the 30th meeting, Committee after deliberation decided to adopt ISO 10893- 3: 2011.** | **Draft under preparation.** |  |
| **2** | **Adoption of ISO 9712: 2021**Non-Destructive Testing - Qualification and Certification of NDT Personnel in single Numbering and **Revision of IS 13805 : 2004**  General standard for qualification and certification of Non-Destructive testing Personnel – Specification | The Committee in 27th meeting decided to put hold on the adoption of IS 9712 as IS/ISO 9712 (single numbering) till the revised version of IS 13805 gets published as it was opined by Dr. P Nanekar that both ISO and Indian standard are different. Hence the committee decided to revise the Indian standard with modified scope, title and content.  **Comments received from Shri P Nanekar vide email dated 09.08.2023 is attached**    **The committee after deliberation requested Shri P Nanekar to submit the draft to BIS for wide circulation within 1 months.**  **On receipt of draft document, the same shall be sent for WC for 2 months.**  During 30th meeting, Shri Nanekar informed that he will submit final draft within 2 months.  **Committee requested MS to circulate the draft received for WC for 2 months.** | **Email dated 01.02.2024 was sent to Shri Nanekar to submit the final draft.**  **Final draft awaited.**  **The committee may deliberate and decide.** |  |
| **3** | **Revision of IS 12148:1987** `Guidelines for requirements for non-destructive testing agencies’  **APPENDIX 2** | **The committee after deliberation requested Shri P. Nanekar to review the standard with existing ISO if any and submit his Input/ Comment/recommendation within 1 month.**  **Shri Nanekar confirmed to submit revised draft in 1month.**  **Committee requested MS to circulate the draft for WC for 1 month.** | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Draft awaited from Shri Nanekar.**  **The committee may deliberate and decide.** |  |
| **4** | **Revision of**  **IS 15404:2003 `Recommended practice for measuring ultrasonic velocity in materials’ and**  **IS 15435:2003 `Recommended practice for measuring thickness using ultrasonic method** | In the 29th meeting, Shri P. Nanekar suggested to  1)Adopt **ISO 16809 : 2017 (corresponding IS 15435 exist)**  **2)Adopt ISO 16831: 2012 (corresponding IS 15468 exist)**  **3) For** IS 15404:2003  Recommended to change the title to :  Recommended practice for measuring ultrasonic velocity in materials using conventional ultrasonic flaw detector.  **The committee after deliberation decided to** 1)Adopt **ISO 16809 : 2017 (corresponding IS 15435 exist) and send it for WC for 2months.**  **2)Adopt ISO 16831: 2012 (corresponding IS 15468 exist) and send it for WC for 2months.**  **3) Circulate the document with modified title to IS 15404: 2003 to committee members for 21 days. In case no comments received, the same shall be sent for WC for 30 days.**  **In the 30th meeting, MS informed that**  **Comparison report is required before adopting the ISO standards.**  **Committee requested**  **Shri Nanekar to submit the comparison report.**  Dr. Nanekar informed that he will submit the review/comparison report within 1month.  Committee requested MS to process for adoption on receipt of review report. | **Email dated 01.02.2024 was sent to Shri Nanekar to submit the comparison report.**  **Report awaited.**  **The committee may deliberate and decide.** |  |
| **5** | **Revision of IS 15468:2004**`Performance evaluation of ultrasonic thickness gauge |
| **6** | **Revision of IS11626:2005**`Recommended practice for ultrasonic testing and acceptance for forging quality steel blooms (first revision) | The following comment received from Shri P. Nanekar vide email dated 09.08.2023 - Couldn’t locate IS 8791: 1978, IS 11626 : 2005 and BS EN 10228 in the standards shared for review and hence cannot offer any comments  **The committee after deliberation requested Member secretary to provide the mentioned standards IS 8791: 1978, IS 11626: 2005 and BS EN 10228 to Shri P. Nanekar and further requested Shri Nanekar to provide input/comment within 1 month.** | **Email dated 01.02.2024 was sent to Shri Nanekar to provide input/ comment.**  **input/comment awaited.**  **The committee may deliberate and decide.** |  |
| **7** | **Revision of IS 11630:2005** `Method for ultrasonic testing of steel plates for pressure vessels and special applications (first revision) | The following comments received from Shri P. Nanekar vide email dated 09.08.2023 –  IS 11630:2005 specifies backwall echo amplitude for setting the scanning sensitivity, while ISO 17577 specifies flat bottom hole as reference reflector. Hence these two standards are different.  The title of Indian standard may be changed to: ‘Method for ultrasonic testing of steel plates by backwall echo method’. In the scope, section 1.2, [‘pressure vessel application and special application] may be omitted.    **Proposal received for Revision of IS 11630: 2005 (METHOD FOR ULTRASONIC TESTING OF STEEL PLATES FOR PRESSURE VESSELS AND SPECIAL APPLICATIONS) in line with ASTM A 578 that covers on line UT.**  **The committee after deliberation requested Shri P. Nanekar to submit Draft document for Wide Circulation within 1 month.** | **Email dated 01.02.2024 was sent to Shri Nanekar to submit the draft.**  **Draft awaited.**  **The committee may deliberate and decide.** |  |
| **8** | **Formulation of new standard on Oxide layer thickness measurement with ultrasonic technique for boiler tube life assessment** | Comments received from Shri P Nanekar vide email dated 09.08.2023 is attached.    **The committee after deliberation requested panel-3 for ultrasonic testing to discuss the comments received from Shri P. Nanekar in a panel meeting and submit a modified draft within 2 months.**  **The draft received shall be sent for WC for 2 months. In case no comments received, the same shall be sent for printing.**    In the 30th meeting, **Committee requested panel 3 to do a meeting within 1 month and complete the review. Committee requested MS to form a whatsapp group for all the panels and co-ordinate in conducting panel meetings.** | **Whats app group formed for the panels. Panel meeting not held so far. Panel meeting to be done.**  **The committee may note.** |  |
| **9** | **Revision of IS 12782:1989** `Guidelines for using thermography for monitoring of industrial components’ | **The committee after deliberation decided to assign this review to Panel 8 on thermographic testing who will submit their Input with draft document within 30 days for circulating the same to the committee members for 21 days.**  **The committee further requested panel 8 to submit their recommendations on what all ISO Standards on thermography can be adopted.**  ISO has published 5 standards , one on vocabulary o, general principles, characteristics of system ,General principles for thermoelastic stress measuring method  [ISO 10878:2013](https://www.iso.org/standard/46265.html?browse=tc)  Non-destructive testing — Infrared thermography — Vocabulary  [ISO 10880:2017](https://www.iso.org/standard/61881.html?browse=tc)  Non-destructive testing — Infrared thermographic testing — General principles  [ISO 18251-1:2017](https://www.iso.org/standard/61882.html?browse=tc)  Non-destructive testing — Infrared thermography — Part 1: Characteristics of system and equipment  [ISO 18251-2](https://www.iso.org/standard/75543.html?browse=tc)  Non-destructive testing — Infrared thermography — Part 2: Test method for integrated performance of system and equipment  [ISO 22290:2020](https://www.iso.org/standard/73038.html?browse=tc)  Non-destructive testing — Infrared thermographic testing — General principles for thermoelastic stress measuring method  **During 30th meeting, Dr. Menaka recommended to adopt.**  **Committee requested Dr. Menaka to specify the ISO standard need to be adopted and submit review/comparison report within 1 month.** | **Email dated 01.02.2024 was sent to submit the comparison report.**  **report awaited.**  **The committee may deliberate and decide.** |  |
| **10** | **Revision of IS 7343:1986** `Code of practice for ultrasonic testing of ferrous welded pipes and tubular products (first revision) | An email dated 09.08.2023 received from Shri P. Nanekar with following recommendation -  **Recommended to adopt ISO 10893-8,9,11,12**  **The committee after deliberation requested panel 3 to do comparative study and submit their recommendation within 2 months.**  MS observation- There exists two separate standards for welded and seamless ultrasonic testing IS 6394 and IS 7343. Both of them having similar technical content in the standard. Is it not feasible to have one standard under a common tile and scope covering both?  During 30th meeting, Dr. Nanekar recommended to adopt the ISO standard.  Committee requested Dr. Nanekar to submit review/ comparison report within 1 month. | **Email dated 01.02.2024 was sent to Shri Nanekar to submit the comparison report.**  **Report awaited.**  **The committee may deliberate and decide.** |  |
| **11** | **Revision of IS 6394:2006** Code of practice for ultrasonic testing of seamless metallic tubular products by contact and immersion methods (*second revision*) | -do- |
| **12** | **MTD 21 (5046)**  Formulation of new standard on Code of practice for radiometric techniques  **APPENDIX 5** | **BIS proposed NWIP on "Gammatopography of shielding structures" in ISO/TC 135/ SC5 mirror committee.**  **During the 16th plenary meeting of ISO/ TC 135/ SC 5 held on 2023-07-08 in Hybrid mode in Lisbon, Portugal , Dr. Menaka M, IGCAR - Expert and Shri Kunal Kumar, Member secretary of the mirror committee , paricipated virtually and made presentation on the NWIP.**  **The following were outcome of the meeting-**  **ISO/TC 135/SC 5 agrees to establish ISO/PWI “Gamma topography of shielding Integrity”.**  **Attendees agree to establish a new preliminary work item.**  **PWI is allocated to the new study group “Gamma topography of shielding Integrity” with convenor Ms Menaka (BIS).**  **The PWI is supported by BIS, ANSI, JISC, SAC and DIN.**  **asks CM to initiate a call for experts.**  **The resolution was approved unanimously.**  **A ballot for call of experts was initiated by the committee manager of ISO/TC 135/SC 5, The experts were nominated by the NSBs.**  **A meeting was scheduled by the committee manager of ISO/TC 135/SC 5 with all the experts. However, meeting could not be held due to some technical issue. An email was circulated to all the experts to submit their input/comments on Draft to Dr. Menaka.**  **Inputs received on the draft were communicated to Dr. Menaka.** | **17th planery meeting of ISO/TC 135/SC 5 committee held in Korea on 2/06/2024 in Hybrid mode.**  **The delegation, as approved by the Chairman MTD 21, consisting of Mrs Menaka M. of IGCAR as project leader, Dr. Alok Pandey of AERB, Member MTD 21 and Shri Kunal Kumar, Member Secretary, MTD 21 attended the meeting.**  **The comments received from Japan and Germany. The manuscript will be updated asap and sent back to SC 5.**  **Minutes of meeting attached.**    **The committee may please note.** |  |
| **13** | **Revision of IS 4853:1982**  `Recommended practice for radiographic inspection of fusion welded butt joints in steel pipes (first revision)’ | **The Committee after deliberation requested Panel 5 on radiographic testing to examine the Indian Standards IS 4853 and IS 1182 with respect to corresponding ISO 17636-1 and ISO 17636-2 and submit their recommendation for adoption/ revision within 1 month period of time.**  **If adoption of ISO recommended by the committee, the same shall be sent in wide circulation for 2 months.**  Committee requested member secretary to provide ISO standards to Dr. Arumugam.  Committee also requested MS to co-ordinate a meeting for panel 5 to discuss all the work allocated to panel 5 within 1 month. | **ISO standards were circulated through email as well as on whatsapp group.**  **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached.**    **Panel requested member secretary to provide draft document to Mr. Deepesh for necessary modification.**  **Draft documents were provided to Mr. Deepesh vide email dated 06.03.2024. Modified draft awaited.**  **The committee may please deliberate and decide.** |  |
| **14** | **Review of IS 1182: 1983**Recommended - Practice for radiographic examination of fusion welded butt joints in steel plates Second Revision | -do- |
| **15** | **Revision of IS 7666:1988** Recommended procedure for ultrasonic examination of ferritic castings of carbon and low alloy steel (first revision)’ | The committee in its previous meeting after detailed deliberation requested Panel-3 on ultrasonic to examine this Indian Standard IS 7666 with respect to corresponding ISO standards –  **ISO 4992-1:2020 Steel castings — Ultrasonic testing — Part 1: Steel castings for general purposes**  **ISO 4992-2:2020Steel castings — Ultrasonic testing — Part 2: Steel castings for highly stressed components**  and submit their recommendation within 2 months period of time.`  Shri P. NAnekar vide email dated 09.08.2023 –  Recommended to adopt **ISO 4992-1:2020 & ISO 4992-2:2020.**  **The committee after deliberation decided to adopt ISO 4992-1:2020 & ISO 4992-2:2020. The committee requested member secretary to circulate the documents in WC for 2 months.**  **During 30th meeting, member secretary informed that**  **Comparison report is required before adopting the ISO standards. Shri Nanekar and Panel 3 may be requested to submit the comparison report.**  **Dr. Nanekar informed that he will submit the review/comparison report within 1month.**  **Committee requested MS to process for adoption on receipt of review report.** | **Email dated 01.02.2024 was sent to Shri Nanekar to submit the comparison report.**  **Report awaited.**  **The committee may deliberate and decide.** |  |
| **16** | **Revision of IS 9902:2004**`  Recommended practice for leak testing (first revision) | **The committee after deliberation requested panel 6 for leak testing to examine IS 9902: 2004 with corresponding ISO standard and submit their recommendation within 2 months period of time.**  There exist two Indian standards namely:   1. **IS 8973 : 1991**Leak detection techniques glossary First Revision for glossary of terms for leak testing  and the corresponding ISO standard is**ISO 20484 : 2017 .** The Indian standard has to be reviewed, and recomemndations are invited from panel members whether we can adopt ISO 20484:2017 and revise IS 8973:1991. 2. **IS 9902 : 2004**Recommended practice for leak testing First Revision exists for leak testing and the corresponding ISO standard are **ISO 20485: 2017** Non-destructive testing — Leak testing — Tracer gas method; ISO 20486 : 2017 Non-destructive testing — Leak testing — Calibration of reference leaks for gases; **ISO 3530 : 1979  Vacuum technology — Mass-spectrometer-type leak-detector calibration.**   **Committee requested Dr. Vivek Yelgaonkar to conduct a meeting of panel 6 within 1 month and discuss all the works allocated to the panel.** | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| **17** | **Review of IS** 8791 : 1978  Code of practice for ultrasonic flaw detection of ferritic steel forgings | **The committee after deliberation requested Panel 3 on ultrasonic testing to examine IS 8791: 1978 with corresponding BS EN 10228 standard and submit their Input/recommendation within 1 month period of time.**  There exists 4 parts of BSEN 10228 stated below -  BS EN 10228 - Non-destructive testing of steel forgings   * Part 1 [Non-destructive testing of steel forgings. Magnetic particle inspection](https://doi.org/10.3403/01695284U) * Part 2 [Non-destructive testing of steel forgings. Penetrant testing](https://doi.org/10.3403/01372814U) * Part 3 [Non-destructive testing of steel forgings. Ultrasonic testing of ferritic or martensitic steel forgings](https://doi.org/10.3403/01411331U) * Part 4 [Non-destructive testing of steel forgings. Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings](https://doi.org/10.3403/02333711U)   During 30th meeting, Committee requested panel 3 to conduct a panel meeting within 1 month and discuss all the works allocated to the panel. | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| **18** | **Review of** IS 2478 : 1991  Glossary of terms relating to industrial radiology (Second Revision) | **Committee after deliberation requested Dr. Arumugam to conduct a panel meeting within 1 month and discuss the work allocated. MS will coordinate.** | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached.**    **There is an ISO Standard, ISO 5576: 1997 for Industrial X-ray and gamma ray radiology – vocabulary.**  **Panel requested Mr. Deepesh to review the standard. Review report awaited from Mr. Deepesh.**  **The committee may please deliberate and decide.** |  |
| **19** | **Review of** IS 3415 : 1998  Glossary of terms used in magnetic particle flaw detection (Second Revision) | Committee after deliberation requested Shri Kalesh Nerukar to conduct a panel 2 meeting within 1 month and discuss the work allocated and submit report. | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| **20** | **Review of**  IS 3658 : 1999  Code of practice for liquid penetrant flaw detection (Second Revision) | Committee after deliberation requested Shri Kalesh Nerukar to conduct a panel 2 meeting within 1 month and discuss the work allocated and submit report. | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| **21** | **Review of** IS 7810 : 1999  Code of practice for radiographic examination of resistance spot welds on aluminium and its alloys (First Revision) | Committee after deliberation requested Panel 5 members to conduct a meeting within 1 month to discuss the work allocated and submit report. | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached.**    **Mr.Arumugam informed that the standard is very old and needs to be revised to be in line with the current practices. There is no ISO Standard on the subject. Panel will review the Standard.**  **The inputs received from all the three members shall be discussed in the next panel meeting.**  **Inputs not yet received from panel members.**  **The committee may please deliberate and decide.** |  |
| **22** | **Review of** IS 8973 : 1991  Leak detection techniques glossary (First Revision) | **Committee after deliberation requested Dr. Vivek Yelgaonkar to conduct a Panel 6 meeting to discuss the work allocated and submit report.** | **Minutes of meeting circulated to the members through portal as well as email dated 01/02/2024.**  **Panel meeting not held so far.**  **The committee may please deliberate and decide.** |  |
| **23** | **Review of** IS 12710 : 1989  Acoustic emission testing - Glossary of terms | Pending- to find expert to include in panel 9. | **-** |  |
| **24** | **Review of** IS 12860 : 1989  Metallic coating thickness by X-ray fluorescence technique method - Determination | **Committee after deliberation requested Dr. Arumugam to conduct a panel meeting within 1 month to discuss the work allocated and submit report. MS will coordinate.** | **Panel meeting was held on 19.02.2024. During meeting, Mr Arumugam informed that the standard is very old and needs to be revised to be in line with the current practices.**  **It was informed that there is an ISO Standard, ISO 3497: 2000.**  **Panel will review the Indian and ISO Standard.**  **No inputs received from the panel.**  **The committee may please deliberate and decide.** |  |
| **25** | **Review of** IS 12965 : 1990  Glossary of terms used in electro magnetic (Eddy Current) testing | **Committee after deliberation requested Shri Bharat S Biradar to conduct a panel meeting within 1 month to discuss the work allocated and submit report. MS will coordinate.** | **Panel meeting held on 16/03/2024. Minutes of panel meeting is attached.**    **However, IS 12965 could not be discussed in that meeting.**  **The committee may please deliberate and decide.** |  |
| **26** | **Review of** IS 13190 : 1991  Recommended practice for eddy current examination by rotating probe method of round steel bars | **Committee after deliberation requested Shri Bharat S Biradar to conduct a panel meeting within 1 month to discuss the work allocated and submit report. MS will coordinate.** | **Panel meeting held on 16/03/2024. Minutes of panel meeting is attached.**    **However, IS 13190 could not be discussed in that meeting.**  **The committee may please deliberate and decide.** |  |
| **27** | **Review of** IS 14669 : 1999  Thermal neutron radiography - Recommended practices | **Committee after deliberation requested Panel 5 members to conduct a meeting within 1 month to discuss the work allocated and submit report.**  **MS will coordinate.** | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached above.**  **It was informed that there is an ISO standard, ISO 12721: 2000 for NDT- Thermal neutron radiographic testing.**  **Dr. Menaka will review the Indian standard and corresponding ISO Standard.**  **The inputs received from Dr. Menaka shall be discussed in the next panel meeting.**  **No inputs received.**  **The committee may please deliberate and decide.** |  |
| **28** | **Review of** IS 14670 : 1999  Recommended practice for acoustic emission inspection during hydrostatic pressure testing of system | **Committee after deliberation requested Dr. Menaka to conduct a meeting with panel 9 to discuss the work allocated and submit report.** | **Pending- to find expert to include in panel 9.** |  |
| **29** | **Review of** IS 2953 :1985  Glossary of terms used for interpretation of welds and castings radiographs First Revision | **Committee after deliberation requested Dr. Arumugam to conduct a panel meeting within 1 month to discuss the work allocated and submit report. MS will coordinate.** | **A panel meeting was conducted on 19.02.2024. Minutes of panel meeting is attached above.**  **It was informed that there is no ISO standard on the subject. Mr. Arumugam informed that he and Mr. Deepesh will review the standard.**  **The inputs received from Mr. Arumugam and Mr. Deepesh shall be discussed in the next panel meeting.**  **No inputs received.**  **The committee may please deliberate and decide.** |  |

**Item 6 COMMENTS ON INDIAN STANDARS**

**6.1** We have received comments on parts of IS 12666 which is placed below-



**The Committee may please Deliberate and Decide.**

**Item7 NEW PROPOSALS FOR STANDARDIZATION**

**7.1**As per new guidelines received from Competent Authority, any new proposal for standardization should essentially be made on the prescribed proforma as a preliminary work item. Where a proposal is made in the Sectional Committee, the member making the proposal should fill up the proforma beforehand and present it in the meeting for consideration of the committee. The sample proforma is given below:

****

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

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

**7.3Prioritization of a subject**

The expected time schedule is given below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Type** | **Priority 1** | **Priority 2** | **Priority 3** |
| Adoption | 6 months | 9 months | 12 months |
| Indigenous | 9 months | 18 months | 24 months |

**7.4 New proposals received.**

**1) Revision of IS 11630 : 2005 (METHOD FOR ULTRASONIC TESTING OF STEEL PLATES FOR PRESSURE VESSELS AND SPECIAL APPLICATIONS) in line with ASTM A 578 that covers on line UT.**

**Item 8 INTERNATIONAL ACTIVITY**

**8.1 Interaction with ISO**

**8.1.1** The National Standards Bodies who are members of ISO have the right to participate in the work of its technical committees and subcommittees and working groups as participating (P members) or observer (O member) with the following responsibilities:

1. P members have to participate actively in the work, with an obligation to vote on all questions formally submitted for voting within the technical committee or subcommittee and on draft documents at different stages or processing and, whenever possible, to participate in meeting (s).
2. O members have to follow the work as an observer, and therefore, receive committee documents and have the right to submit comments and to attend meetings
3. National Bodies irrespective of their status as ‘P’ or ‘O’ member within a technical committee or subcommittee have the right to vote on draft International Standards.

**8.2 India’s participation in ISO meetings**

**8.2.1**India is a `P’ member on ISO/TC 135 and in its sub committees – Standardization in the field of Non- Destructive Testing. All the members are advised to closely examine the NWIP received from ISO and active participation. All the members are also requested to identify the experts in International Standardization so that our participation at international level can be increased. The present status published and under development standards in ISO/TC 135 – Non-destructive testing and its Sub-Committees is given below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Sectional Committee** | **Subject** | **link** |
|  | ISO/TC 135 | Non-destructive testing | <https://www.iso.org/committee/52398/x/catalogue/p/1/u/1/w/0/d/0#projects> |
|  | ISO/TC 135/SC 2 | Non-destructive testing - Surface methods | <https://www.iso.org/committee/52404/x/catalogue/> |
|  | ISO/TC 135/SC 3 | Non-destructive testing - Ultrasonic Testing | <https://www.iso.org/committee/52410/x/catalogue/p/1/u/1/w/0/d/0> |
|  | ISO/TC 135/SC 4 | Non-destructive testing - Eddy current testing | <https://www.iso.org/committee/52416/x/catalogue/p/1/u/0/w/0/d/0> |
|  | ISO/TC 135/SC 5 | Non-destructive testing - Radiation Method | <https://www.iso.org/committee/52418/x/catalogue/p/1/u/0/w/0/d/0> |
|  | ISO/TC 135/SC 6 | Non-destructive testing - Leak detection method | <https://www.iso.org/committee/52430/x/catalogue/p/1/u/0/w/0/d/0> |
|  | ISO/TC 135/SC 7 | Non-destructive testing - Personnel qualification | <https://www.iso.org/committee/52432/x/catalogue/p/1/u/0/w/0/d/0> |
|  | ISO/TC 135/SC 8 | Non-destructive testing - Infrared thermography for Non-destructive testing | <https://www.iso.org/committee/52446/x/catalogue/p/1/u/0/w/0/d/0> |
|  | ISO/TC 135/SC 9 | Non-destructive testing - Acoustic emission testing | <https://www.iso.org/committee/542404/x/catalogue/p/1/u/0/w/0/d/0> |

**8.3Harmonizing of Indian standards with ISO standards**

**8.3.1** Efforts to be made to harmonize maximum number of BIS standards with ISO standards - While harmonizing the Indian standards with International standards the reasons/justifications are needed to be given in the foreword of Indian Standards, if there is any deviation from the provisions stipulated in the corresponding ISO standards.

**8.3.2**Members are requested to examine ISO standards vis-a-vis Indian standards and send their comments to BIS secretariat, if any so that Indian standards could be revised/harmonized on the basis of ISO standard. Comments, if any, will be tabled during the meeting for consideration of the committee.

**The committee may please note.**

**8.3.3**We have identified ISO standards for harmonization and also received harmonization recommendation from MTD 21 for few Indian Standards which are listed below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **ISO Number** | **Title** | **Panel for which the standard(s) is/are allotted for their review and recommendation to the committee** | **Previous actions** | **Decision of the committee during last meeting** |
|  | ISO10893-1 : 2011 | Non-destructive testing of steel tubes — Part 1: Automated electromagnetic testing of seamless and welded (except submerged arc-welded) steel tubes for the verification of hydraulic leak-tightness | Panel-3   1. Shri ArbindKumar,BARC Mumbai (Convener) 2. Shri S Mahadevan,IGCAR, Kalpakkam; 3. Dr S.T Arasu, IGCAR; | Panel 3 convener was requested vide email dated 01-November-2021 to submit their review recommendation on adoption and reply was received on 24th November 2021. The comments received from Dr. Arbind Kumar are placed below. | To be discussed in the next meeting. |
|  | ISO 10893-4:2011 | Non-destructive testing of steel tubes — Part 4: Liquid penetrant inspection of seamless and welded steel tubes for the detection of surface imperfections | Panel-3   1. Shri Arbind Kumar, Mumbai (Convener) 2. Shri S Mahadevan,IGCAR, Kalpakkam; 3. Dr S.T Arasu, IGCAR; ) | -------------do------------- | To be discussed in the next meeting. |
|  | ISO 10893-5:2011 | Non-destructive testing of steel tubes — Part 5: Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections | Panel-3   1. Shri Arbind Kumar, Mumbai (Convener) 2. Shri S Mahadevan,IGCAR, Kalpakkam; 3. Dr S.T Arasu, IGCAR; | .-------------do--------    It is to inform to the committee that the corresponding Indian standard is IS 6752: 2012 ‘Code of practice for magnetic particle flaw detection of ferrous pipes and tubes” | To be discussed in the next meeting. |
|  | ISO 10893-6:2019 | Non-destructive testing of steel tubes — Part 6: Radiographic testing of the weld seam of welded steel tubes for the detection of imperfections | Panel -1   1. Shri Kurmanathan ,SHAR (Convener); 2. Dr. T Sarvananan, IGCAR; | Panel convener was requested vide email dated 15th -November-2021 to submit their review and recommendation on adoption of these parts .Several Reminders were sent on 20th Dec 2021, 7th Jan 2022. 06th April 2022 and 3rd June 2022.  However the reply is awaited. | To be discussed in the next meeting. |
|  | ISO 10893-7:201 9 | Non-destructive testing of steel tubes — Part 7: Digital radiographic testing of the weld seam of welded steel tubes for the detection of imperfections | Panel -1   1. Shri Kurmanathan ,SHAR (Convener); 2. Dr. T Sarvananan, IGCAR; | -------------do------------- | To be discussed in the next meeting. |
|  | ISO 10893-8:2011 | Non-destructive testing of steel tubes — Part 8: Automated ultrasonic testing of seamless and welded steel tubes for the detection of laminar imperfections | Panel-2   1. Shri P PNanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam, 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear | Panel convener Shri P NAnekar vide email dated 09.08.2023 recommended to adopt ISO 10893-8, ISO 10893-9, ISO 10893-11, ISO 10893-12. | The committee after deliberation decided to adopt ISO 10893-8.  A report on requirement to adopt the ISO Standard is required to be submitted. |
|  | ISO 10893-9:2011 | Non-destructive testing of steel tubes — Part 9: Automated ultrasonic testing for the detection of laminar imperfections in strip/plate used for the manufacture of welded steel tubes | Panel-2   1. Shri P PNanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam, ; 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear | Panel convener Shri P NAnekar vide email dated 09.08.2023 recommended to adopt ISO 10893-8, ISO 10893-9, ISO 10893-11, ISO 10893-12. | The committee after deliberation decided to adopt ISO 10893-9  A report on requirement to adopt the ISO Standard is required to be submitted. |
|  | ISO 10893-10 :2011 | Non-destructive testing of steel tubes — Part 10: Automated full peripheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections | Panel-2   1. Shri P PNanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam, ; 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear | -------------do---------  IS 7343 & IS 6394 | To be discussed in the next meeting. |
|  | ISO 10893-11:2011 | Non-destructive testing of steel tubes — Part 11: Automated ultrasonic testing of the weld seam of welded steel tubes for the detection of longitudinal and/or transverse imperfections | Panel-2   1. Shri P PNanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam, ; 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear | Panel convener Shri P NAnekar vide email dated 09.08.2023 recommended to adopt ISO 10893-8, ISO 10893-9, ISO 10893-11, ISO 10893-12. | The committee after deliberation decided to adopt ISO 10893-11  A report on requirement to adopt the ISO Standard is required to be submitted. |
|  | ISO 10893-12:2011 | Non-destructive testing of steel tubes — Part 12: Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes | Panel-2   1. Shri P PNanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam, ; 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear | Panel convener Shri P NAnekar vide email dated 09.08.2023 recommended to adopt ISO 10893-8, ISO 10893-9, ISO 10893-11, ISO 10893-12. | To be discussed in the next meeting. |

**The committee may please Review and Decide**

**8.4 Closer examination of the New Work Item Proposals received from ISO**

**1) ISO/TC 135/SC 3: Non-destructive Testing-Ultrasonic testing**

Documents under development:

1. ISO/FDIS 4773 — Non-destructive testing — Ultrasonic guided-wave testing using the phased-array technique;
2. ISO/WD 5577 — Non-destructive testing — Ultrasonic testing — Vocabulary;
3. ISO/WD 16810 — Non-destructive testing — Ultrasonic testing — General principles;
4. ISO/WD 16811 — Non-destructive testing — Ultrasonic testing — Sensitivity and range setting;
5. ISO/WD 16823 — Non-destructive testing — Ultrasonic testing — Transmission technique;
6. ISO/WD 16826 — Non-destructive testing — Ultrasonic testing — Examination for discontinuities perpendicular to the surface;
7. ISO/WD 16827 — Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities;
8. ISO/AWI 16828 — Non-destructive testing — Ultrasonic testing — Time-of-flight diffraction technique as a method for detection and sizing of discontinuities;
9. ISO/WD 16831 — Non-destructive testing — Ultrasonic testing — Characterization and verification of ultrasonic thickness measuring equipment;
10. ISO/DIS 16946 — Non-destructive testing — Ultrasonic testing — Specification for a step wedge calibration block;
11. ISO/CD 18563-2 — Non-destructive testing — Characterization and verification of ultrasonic phased array equipment — Part 2: Probes;
12. ISO/DIS 18563-3 — Non-destructive testing — Characterization and verification of ultrasonic phased array equipment — Part 3: Complete systems.

**2) ISO/TC 135/SC 5: Non-destructive Testing** —**Radiographic testing**

1. ISO/DIS 5580 — Non-destructive testing — Industrial radiographic illuminators — Minimum requirementsISO/DTS 9516-2: Iron ores — Determination of various elements by X-ray fluorescence spectrometry — Part 2: Simplified procedure
2. ISO/DIS 32543-1 — Non-destructive testing — Characteristics of focal spots in industrial X-ray systems — Part 1: Pinhole camera radiographic method

3) **ISO/TC 135/SC 9: Non-destructive Testing** — **Acoustic emission testing**

1. ISO/CD 18081 — Non-destructive testing — Acoustic emission testing (AT) — Leak detection by means of acoustic emission
2. ISO/DIS 24489 — Non-destructive testing — Acoustic emission testing — Detection of corrosion at atmospheric and low-pressure metallic storage tank floors

**The committee may please note.**

List of ballot due–

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type | Committee / Working Group | Reference | Vote | Status | Start date | End date |
| DIS | ISO/TC 135/SC 5 | ISO/DIS 15708-3 (Ed 2) | Vote Pending | Open | 2024-04-26 | 2023-07-19 |
| DIS | ISO/TC 135/SC 3 | ISO/DIS 16831 (Ed 2) | Vote Pending | Open | 2024-05-02 | 2024-07-25 |
| NP | ISO/TC 135/SC 3 | ISO/NP 25222-2 | Vote Pending | Open | 2024-05-03 | 2024-07-26 |
| FDIS | ISO/TC 135/SC 3 | ISO/FDIS 18563-2 (Ed 2) | Vote Pending | Open | 2024-06-26 | 2024-08-21 |
| NP | ISO/TC 135/SC 2 | ISO/TC 135/SC 2 | Vote Pending | Open | 2024-06-04 | 2024-08-27 |
| NP | ISO/TC 135/SC 2 | ISO/NP 22530 | Vote Pending | Open | 2024-06-04 | 2024-08-27 |

**The committee may please Review and Decide.**

# **Item 9 Composition of the committee**

**9.1 Review of the membership in the Committee**

In accordance with the guidelines, the composition should be compact and the membership of the committee shall be reviewed after 3 years and the organizations representing for reasonable long time without participation/contribution may be substituted by new organization that are capable of contributing in the new technologies/area of work. BIS has issued following guidelines for appointment of members and vice chairman in the sectional committees.



**9.2 Balancing of all interested groups in the Committee**

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

**9.3 The Size of the Committee**

The size of the committee is often a compromise between a reasonably broad basis of representation and the need to restrict membership to workable numbers. Generally, a smaller membership will be appropriate for a committee dealing with Detailed Aspects of a Standard, With Wider Representation Being Provided at the More Senior committee levels. In order to keep committee to a workable size, the strength of Sectional Committee is generally 30.

**9.4** The present scope and composition of MTD 21 is given in **[Annex-I](#annexii)**.

**The Committee may review and decide.**

**9.5 New Nominations**

No new nominations have been received from the last meeting.

**The Committee may please Note.**

**Item 10 CREATION OF POOL OF EXPERTS**

**The Committee may Deliberate and Decide.**

# **Item 11 ANY OTHER BUSINESS**

**Annex-I**

**Scope:** Standardization in the field of Non-Destructive Testing Sectional Committee, MTD 21

**Liaison:**

**Principle (P) Member in ISO Committees/Sub-committees**

1. ISO TC 135 - Non-Destructive testing - Principle (P)
2. ISO TC 135 / SC 2 - Surface method - Principle (P)
3. ISO TC 135 / SC 3 - Ultrasonic testing - Principle (P)
4. ISO TC 135 / SC 4 - Eddy current testing - Principle (P)
5. ISO TC 135 / SC 5 - Radiographic testing - Principle (P)
6. ISO TC 135 / SC 6 - Leak testing - Principle (P)
7. ISO TC 135 / SC 7 - Personnel qualification - Principle (P)
8. ISO TC 135 / SC 8 - Thermographic testing - Principle (P)
9. ISO TC 135 / SC 9 - Acoustic emission testing - Principle (P)

**COMPOSITION OF SECTIONAL COMMITTEE, MTD 21**

|  |  |  |
| --- | --- | --- |
| **Meeting** | **Date** | **Place** |
| Twenty-ninth, 29th | 10August 2023 | Hybrid Meeting (Physical + Virtual) |
| Thirty, 30th | 20 Dec 2023 | Hybrid Meeting (Physical + Virtual) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Organization** | **Represented by** | **29th** | **30th** | **Total** |
|  | Atomic Energy Regulation Board, Mumbai | Shri Amit Sen (Principle Member)  Shri Alok Pandey (Alternate Member) | P | N | 1/2 |
|  | BVG Nuclear Private Limited, Pune | Dr.Vivek Nagesh Yelgaonkar (Principal Member)  Dr.Tushar Ghate (Alternate Member) | N | P | 1/2 |
|  | Bhabha Atomic Research Centre ,Mumbai | Dr.P.P.Nanekar (Alternate Member)  Dr.Arbind Kumar (Principal Member) | P | P | 2/2 |
|  | Bharat Heavy Electricals Ltd, New Delhi | Shri R. Arul Prabhu (Principal Member)  Shri Shyamsunder Reddy (Alternate Member 1st)  Shri Rakesh Kumar Munda; (Alternate Member 2nd)  Shri B K Sethupath (Alternate Member 3rd) | P | P | 2/2 |
|  | CSIR, National Physical Laboratory , New Delhi | Dr.Premshankar K. Dubey (Principal Member)  Dr. Naveen Garg (Alternate Member) | P | P | 2/2 |
|  | CSIR, National Metallurgical laboratory (Jamshedpur) | Dr. S. PalitSagar (Principal Member)  Dr. A.K. Panda (Alternate Member) | P | P | 2/2 |
|  | Centre for Design and  Manufacture BARC, Mumbai | Shri R. K Gupta (Principal Member)  Shri Lalit Mohan (Alternate Member)  Shri Ashutosh Srivastava (Young Professional) | N | N | 0/2 |
|  | Defence Metallurgical Research Laboratory (DMRL), DRDO, Hyderabad | Dr. M. Phani Surya Kiran (Principal Member)  Shri A. Mukhopadhyay (Alternate Member) | N | P | 1/2 |
|  | Department of Space, Bengaluru | Dr. Saratchandran S (Principal Member)  Dr. M. Arumugam (Alternate Member) | P | P | 2/2 |
|  | Satish Dhavan space Centre (ISRO), SHAR, SriharikotaAndhra Pradesh | Dr. B. Munirathinam (Principal Member) Shri.P.V.S.Kurmanath (Alternate Member) Shri V.Ramesh Babu(Young Professional) | P | P | 2/2 |
|  | Ministry of Defence (DGQA) , Ichapur | Shri Ashok Kumar (Principal Member)  Shri M.K.Shrivastav (Alternate Member) | N | N | 0/2 |
|  | Electrical Research and Development  Association (ERDA) , Vadodara | Shri Macwan Robert Advin (Principal Member)  Shri Umesh Soni (Alternate Member) | P | N | 1/2 |
|  | Indian Institute of Technology Roorkee, | Dr VikramDabhade (Principal Member) | N | P | 1/2 |
|  | [Indian Society for Non-Destructive Testing, Chennai](javascript:;) | Shri Diwakar D Joshi(Principal Member)  Dr. Krishnan Balasubramaniam (Alternate Member 1st) | P | N | 1/2 |
|  | Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu | Dr. K. V. Rajkumar  Smt. M. Menaka  Dr. B. Venkatraman | P | P | 2/2 |
|  | Larsen & Toubro Ltd. , Mumbai | Shri A.D.Paranjpe (Principal Member)  Shri P.B.Patil (AlternateMember) | N | N | 02 |
|  | M.N. Dastur& Co (P) Ltd , Chennai | Shri G.S. Kulkarni (Principal Member)  Shri H. Gupta (AlternateMember)  Shri S.Yuvaraj (Young Professional) | N | P | 1/2 |
|  | Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade, New Delhi | Shri T.S.G.Narayannen (Principal Member)  Shri S.K.Jain (Alternate Member) | N | N | 0/2 |
|  | NTPC , Delhi | Shri D.D.N. Verma (Principal Member) | N | N | 02 |
|  | National Test House , Kolkata | Shri Nirman Singh (Principal Member)  Shri Sher Singh (Alternate Member) | P | P | 2/2 |
|  | Nuclear Fuel Complex , Hyderabad | Shri B.Kamlesh Kumar (Principal Member)  Shri Swarup Acharya (Alternate Member) | N | P | 1/2 |
|  | Nuclear Power Corporation of India  Ltd. , Mumbai | Shri J.K.Jain (Principal Member)  Shri N.P.Srivastava (Alternate Member) | P | P | 2/2 |
|  | P - Met, High Tech , Vadodara | Shri Hemal Mehta (Principal Member)  Shri P.K. Panchal (Alternate Member) | N | P | 1/2 |
|  | Pradeep Metal Treatment Chemicals  Pvt Ltd. Thane | Shri D.J. Varde (Principal Member)  Shri Kalesh A. Nerukar (Alternate Member) | P | P | 2/2 |
|  | Research Design & Standards  Organization, Lucknow | Shri Amrish Kumar (Principal Member)  Shri Om Prakash (Alternate Member) | N | N | 0/2 |
|  | Satyakiran Engineers Private limited, New Delhi | Smt.Navita Gupta (Principal Member)  Shri Dinesh Gupta (Alternate Member) | P | P | 2/2 |
|  | Tata Motors Limited , Pune | Shri Hemant More (Principal Member)  ShriAnoop Toby (Alternate Member) | N | P | 1/2 |
|  | Tata Steel Ltd. , Jamshedpur | Shri S. Balamurugan (Principal Member)  Shri R. ShumugaSundaram (Alternate Member) | P | P | 2/2 |
|  | Technofour , Pune, Maharashtra | Shri P.V. Dhole (Principal Member)  Shri Bharat S. Biradar(Alternate Member 1st)  Shri Pradeep J. Lad (Alternate Member 2nd) | P | P | 2/2 |
|  | Institute for Plasma Research, Gandhinagar, Ahmedabad | Dr. Shwetang N. Pandya | P | P | 2/2 |

**Existing panel on the portal–**

The composition of various panels in MTD 21, Non-Destructive Testing Sectional Committee formulated are mentioned below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl No.** | | **Name of Panel** | | **Scope of Panel** | **Composition** |
| **1** | Panel -1 | | Radiographic(ISO/TC135/SC5) and Thermographic Testing(ISO/TC135/SC8) | | 1. Dr. Kurmanathan ,SHAR (Convener); 2. Dr. T Sarvananan, IGCAR; |
| **2** | Panel-2 | | Ultrasonic Testing(SC3), Leak Testing(SC6), Acoustic emission testing(SC9) and Personnel Qualification(SC7) | | 1. Dr.P P Nanekar, BARC, Mumbai (Convener); 2. Dr. M Arumugam,VSSC, ISRO ; 3. Dr G K Sharma, IGCAR 4. Dr. Diwakar Joshi, ISNT 5. Dr Vivek Yelgoankar, BVG Nuclear |
| **3** | Panel-3 | | Surface Method(SC2) and Eddy Current Testing(SC4) | | 1. Dr. Arbind Kumar, Mumbai (Convener) 2. Dr. S Mahadevan, IGCAR, Kalpakkam; 3. Dr S.T Arasu, IGCAR; |
| **4** | Panel-4 | | Miscellaneous Subjects | | 1. Shri C K Mukhopadhyay,IGCAR, Kalpakkam (Convener) 2. Shri P V S Ganesh Kumar |
| **5** | Panel-5 | | Panel for formulating new standard on determination of electrical conductivity using eddy current method | | 1. Dr.Arbind Kumar of M/s BARC(Convener) 2. Shri Bharat Biradar, M/s Technofour Electronics Pvt. Ltd, Pune and 3. Mr. D.K. Jain & Mr. Vasanth Alvaof M/s Aggarwal Metal Works Pvt Ltd ,Bhiwadi, Rajasthan. |
| **6** | Panel-6 | | Panel for revising IS 13805- General standard for qualification and certification of Non-Destructive testing Personnel – Specification | | 1. Dr Diwakar Joshi , ISNT(Panel Convener) 2. Dr. P PNanekar , BARC 3. Ms Navita Gupta, Satyakiran School of NDT |
| **7** | Panel -7 | | Panel for revising IS 12148 – ‘Guidelines for requirements for non-destructive testing agencies’ | | 1. Shri P PNanekar,BARC Mumbai(Convener) 2. Shri Diwakar Joshi, ISNT |

**New Panels as approved in the previous meeting-**

Following new panels were constituted in line with ISO Subcommittees during previous meeting-

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Name of Panel** | **Scope of Panel** | **Composition** |
| **1** | Panel -2 | Surface Method including Visual testing, Liquid penetrant Testing and Magnetic particle Testing(SC2) | 1. Shri Kalesh A. Nerukar (Convener) of M/s Pradeep Metal Treatment Chemicals Pvt Ltd. Thane.  2. |
| **2** | Panel-3 | Ultrasonic Testing(SC3) | 1. Dr.P P Nanekar, BARC, Mumbai (Convener); 2. Dr. G K Sharma, IGCAR 3. Dr. Saratchandran of M/s VSSC, ISRO |
| **3** | Panel-4 | Eddy Current Testing(SC4) | 1. Dr. Arbind Kumar, Mumbai (Convener) 2. Dr S.T Arasu, IGCAR; 3. Shri Bharat Biradar of M/s Technofour , Pune, Maharashtra |
| **4** | Panel-5 | Radiographic Testing (SC5) | 1. Dr. M Arumugam,VSSC, ISRO (Convener) ; 2. Dr. M Menaka, IGCAR 3. Shri M.V.Kuupuswamy, IGCAR 4. Shri Deepesh, BHEL |
| **5** | Panel-6 | Leak Testing (SC6) | * + - 1. Dr. Vivek Nagesh Yelgaonkar (Convener)       2. Shri N.Raghu in personal capacity |
| **6** | Panel-7 | Personnel Qualification (SC7) | 1. Dr. P PNanekar , BARC (Convener) 2. Ms Navita Gupta, Satyakiran School of NDT 3. Dr. M T Shyamsundar 4. Shri Amit Sen of M/s AERB, Mumbai |
| **7** | Panel -8 | Thermographic testing (SC8) | 1. Dr. M Menaka, IGCAR (Convener) 2. Dr Ravi Babu, IIT Delhi 3. Shwetang N Pandya, IPR |
| **8** | Panel-9 | Acoustic emission testing (SC9) | 1. Dr. C K Mukhopadyay in Personal Capacity, Ex-IGCAR (Convener) |