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**BUREAU OF INDIAN STANDARDS**

**MINUTES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the Committee | No. of Meeting | Date | Time | Venue |
| Water Purification Systems Sectional Committee, FAD 30 | 9th | **5 March 2024**  **(Tues)** | **10:30 AM** | Through WebEx |

|  |  |
| --- | --- |
| **CHAIRPERSON:**  **Dr. Pawan Kumar Labhasetwar**  Chief Scientist & Head  Water Technology and Management Division  CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur | **MEMBER SECRETARY:**  **Dr. Nitasha Doger**  Scientist - D  Food & Agriculture Department,  Bureau of Indian Standards, New Delhi |

**ATTENDANCE SHEET–** Please see ***Annex-A* (Page 6)**

**Item 0 GENERAL**

* 1. **Welcome**

Ms. Nitasha Doger, Member Secretary FAD 30 extended a warm welcome to the Chairperson and the members of Water Purification Systems Sectional Committee, FAD 30 to its 9th meeting and thanked them for sparing their valuable time for supporting BIS, the National Standards Body of India in its pursuit of standardization.

* 1. **Opening Remarks by the Chairman, FAD 30**

Dr. Pawan Kumar Labhasetwar extended a warm welcome to the members of the Committee to its 9th meeting and encouraged the members for fruitful deliberations during the meeting. The Chairman appreciated the members for actively commenting on the WC drafts on Ultraviolet water disinfection system —Specification (*first revision*) and Ultrafiltration UF Membrane - Based Point-Of-Use POU Drinking Water Treatment System — Specification.

**ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Committee confirmed the minutes of 8th meeting of Water Purification Sectional Committee, FAD 30 held on **4 Dec 2023** which were circulated vide e-mail dated **28 Dec 2023**.

**ITEM 2 SCOPE, ACTIVITIES & COMPOSITION OF THE SECTIONAL COMMITTEE**

**2.1 SCOPE & ACTIVITIES OF THE COMMITTEE**

The Committee noted the information given in the agenda regarding scope & activities of the Water Purification Systems Sectional Committee, FAD 30.

**2.2 COMPOSITION OF THE SECTIONAL COMMITTEE**

**2.2.1** The Committee reviewed the updated composition of FAD 30 along with the attendance record of last three meetings including the attendance in 9th meeting. Considering lack of participation from Indian Institute of Technology (IIT) Madras, Chennai in the Committee meetings, the Committee decided to recommend their withdrawal from Committee composition. The Committee further decided that on issues of specific interest and expertise, IIT, Madras may be invited in relevant Committee meetings or may be involved as experts in relevant expert panels, if required.

**2.2.2** The Committee noted the scope and composition of Panels provided as Annex III of agenda and suggested one correction in composition of Expert Panel FAD 30/ Panel 4 for Review of IS 14724: 1999 for UV Water Disinfection System i.e to indicate Dr. S. K. Sankar in personal capacity and not as WQIA representative.

**ITEM 3 INDIAN STANDARDS DRAFT INDIAN STANDARDS UNDER WIDE CIRCULATION**

**3.1** The Committeenoted that the draft Indian Standards for Ultraviolet water disinfection system —Specification (*first revision of* IS 14724) and Ultrafiltration UF Membrane - Based Point-Of-Use POU Drinking Water Treatment System — Specification have completed WC period of 60 days.

**3.2** The Committeenoted that substantial number of comments have been received on Doc: FAD 30 (23542) WC, Ultraviolet water disinfection system —Specification (*first revision of IS 14724*) and decided to refer these comments to *Expert Panel for Review of IS 14724: 1999 for UV Water Disinfection System* (FAD 30/ Panel 4) for consideration and recommendation in the matter. The Committee requested the Panel to submit its report in 3 months (Latest by 30 June 2024).

**3.3** The Committeenoted that good number of comments have also been received on Doc:FAD 30 (22352) WC, Ultrafiltration UF Membrane - Based Point-Of-Use Drinking Water Treatment System — Specification and decided to refer these comments to *Expert Panel for Ultrafiltration (UF) based Water Purification System (FAD 30/ Panel 2)* for consideration and recommendation in the matter. The Committee requested the Panel to submit its report in 3 months (Latest by 30 June 2024).

**ITEM 4 DRAFT INDIAN STANDARD UNDER P-DRAFT STAGE**

**4.1** The Committee noted the information given under agenda item 4 regarding circulation of P draft Doc. No. FAD 30 (24246) on Code of practice for design installation and operation maintenance of community drinking water treatment plants (CWTPS) and noted that no comment has been received on the draft from the Committee members on completion of 30 days commenting period.

**4.2** During the meeting, requests were made from various stakeholders to give more time to examine and comment on the P drafts and accordingly the committee decided to give additional 30 days period to the committee members to comment on the P draft FAD 30 (24246) considering the request received from the committee members.

**ITEM 5 ACTIONS ARISING OUT OF PREVIOUS MEETING:**

**5.1 R&D Project on ‘Optimization of Recovery Efficiency of Reverse Osmosis-Based Point-Of-Use Water Treatment Systems’**

The Committee noted the information provided under agenda item **5.1** regarding approval of BIS screening committee on ToR to take up R&D project for Optimization of Recovery Efficiency of Reverse Osmosis-Based Point-Of-Use Water Treatment Systems. The Committee nominated following experts for the Research Evaluation Committee (REC) to evaluate the proposals to be received as per procedure for approval of R&D proposal:

* Dr. S. Sridhar, IICT, Hyderabad
* Dr. Noel Jacob, National Institute of Technology Calicut, Kozhikode

**5.2 Review of 12742: 1989, Guide for De-fluoridation of Water for Drinking Purposes**

The Committee noted that inputs from the working group constituted in the last meeting (8th) of the Committee for review of IS 12742: 1989, ‘Guide for de-fluoridation of water for drinking purposes’ through ARP (Action Research Project) are awaited.

The Committee requested Shri Ravindra Sewak, Safe Water Network India, the Convener of the working group the working group to kindly expedite review of the standard and submission of the ARP report in in 3 months (Latest by 30 June 2024).

**5.3 Review of IS 12918: 1990, Guide for Removal of Iron from Water for Rural Water Supply**

The Committee noted that inputs from the working group constituted in the last meeting (8th) of the Committee for review of IS 12918: 1990, Guide for Removal of Iron from Water for Rural Water Supply through ARP (Action Research Project) are awaited.

The Committee requested Dr. Shveta Mahajan, Safe Water Network India, the Convener of the working group the working group to kindly expedite review of the standard and submission of the ARP report in in 3 months (Latest by 30 June 2024).

**5.4 Formulation of New Indian Standard On Microfiltration (Mf) Based Water Purification Systems**

The Committee noted that in its last meeting (8th) meeting assigned the responsibility of preparation of draft Indian standard on Microfiltration based water purification system through ARP (Action research Project) to Dr S. Sridhar, IICT Hyderabad.

The Committee requested Dr. Sridhar to kindly expedite completion of the project in 3 months’ time.

**5.4 Comments received on IS 16240:2023**

**5.4.1** The Committee noted that the comments received from WQIA and LG Electronics India Pvt. Ltd on IS 16240: 2023. These comments were discussed by the expert panel in its meeting held on 13 Feb 2024. The Committee deliberated on the recommendations from the Panel provided under Annex VIII of the agenda and endorsed the same.

**5.4.2** With regard to the comments from LG Electronics India Pvt. Ltd. for relaxing the tolerance for TDS value of TDS meter from +/- 10 % to from +/- 35 %, the committee noted that the panel is yet to give its recommendation and further technical data/ scientific basis is required to substantiate the comment. The committee deliberated that IS 3025 (Part 16) is referred for determination TDS in IS 16240 and this method prescribes for gravimetric determination of TDS whereas TDS meter is a device that works on the principle of electro-conductivity measurement (followed by conversion to TDS). In this regard, the committee noted that BIS has formulated IS 3025 (Part 14), Method of Sampling and Test (Physical and Chemical) for Water and Wastewater, Part 14: Specific Conductance (Wheatstone Bridge, Conductance Cell), and this standard may be relevant here. The Committee noted that further deliberations in the matter are required and requested the Panel to also consider the possibility of referring IS 3025 (Part 14) in place of IS 3025 (Part 16) while deliberating the matter and giving its recommendations to the committee at the earliest.

**5.4.3** The Committee noted thatsome changes have been recommended by the panel in IS 16240: 2023 which are essentially to bring out more clarity in the standard and there is no urgent need for issuance of an amendment for the same. The Committee accordingly decided to wait for the recommendation of the Panel with regard to the comment on tolerance for TDS value of TDS meter (*please see* 5.4.2 *above*) before considering an amendment to IS 16240.

**ITEM 6 REVIEW OF INDIAN STANDARDS**

The Committee noted the information given under item 6 of the agenda that no Indian Standard is becoming due for review during 2024-25 under five yearly review criteria.

**ITEM 7 FINALISATION OF ANNUAL PROGRAMME FOR STANDARDIZATION (APS) FOR 2024-25**

The Committee noted the progress made under the AAP for the year 2023-24 for FAD 30. The Committee decided to carry forward the ongoing work of Annual Action Plan for 2023-2 and to include a review of IS 12918: 1990, ‘Guide for removal of iron from water for rural water supply’ through ARP in the APS 2024-25. The Committee accordingly finalized the Annual Programme for Standardization (APS) for 2024-25 given as ***Annex B*** of the minutes.

**ITEM 8 TIME AND PLACE FOR THE NEXT MEETING**

The Committee decided to hold the meetings of the Committee during the year as per the following annual meeting calendar:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sectional Committee** | **Planned frequency (Months)** | **July 2024** | **Dec 2024** |
| Water Purification Systems Sectional Committee, FAD 30 | 6 | 26 July 2024 | 20 Dec 2024 |

The Committee noted that the meeting plan needs to be adhered to on best endeavour basis. This enables the committee members to effectively plan and contribute to the standardization activities according to the established schedule. In case of urgency, the committee may hold additional meetings.

**ITEM 12 ANY OTHER BUSINESS**

There being no other business, the meeting ended with a hearty vote of thanks to the Chair & the members*.*

***Annex A***

Attendance for the 9th meeting of Water Purification Systems Sectional Committee, FAD 30 held on 5th March 2024

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| --- | --- | --- |
| **Sl. No.** | **ORGANISATION** | **REPRESENTED BY** |
|  | **Dr P. K. Labhasetwar (Chairperson)**  CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur | |
|  | Bhabha Atomic Research Centre, Mumbai | Dr. A. K. Ghosh |
|  | Bhavan's Research Centre (Microbiology), Mumbai | Dr. Sandhya Shrivastava  Dr. Nishith Desai |
|  | CSIR - Central Food Technological Research Institute, Mysore | Smt. V. Vanajakshi |
|  | CSIR - Central Salt and Marine Chemicals Research Institute, Bhavnagar | Dr. Puyam Singh |
|  | CSIR - Institute of Minerals and Materials Technology, Bhubaneswar | Shri Debabrata Singh |
|  | CSIR - National Environmental Engineering Research Institute, Nagpur | Dr. Noor Afshan Khan |
|  | CSIR - Indian Institute of Chemical Technology, Hyderabad | Dr. S. Sridhar |
|  | Christian Medical College, Vellore | Prof. Venkata Raghava Mohan  Dr. Dilip Abraham |
|  | Confederation of Indian Industry (CII), New Delhi | Shri J. S. K. Srinivasan  Ms. Mamta Arora Budhiraja |
|  | Consumer Education and Research Centre, Ahmedabad | Ms. Anindita Mehta |
|  | Consumer Electronics and Appliances Manufacturers Association, Noida | Shri Srinivasu Moturi  Shri Aditya Anil |
|  | Department of Science and Technology, New Mehrauli Road, New Delhi | Dr. Sanjai Kumar |
|  | Development Alternatives, New Delhi | Dr. K. Vijaya Lakshmi |
|  | Indian Institute of Technology, Kharagpur | Dr Brajesh Kr Dubey |
|  | Indian Plumbing Association, New Delhi | Shri Mukesh Asija |
|  | Indian Water Works Association, Mumbai | Shri Anil Kumar Gupta |
|  | Ministry of Environment Forest and Climate Change, New Delhi | Dr. Sonu Singh |
|  | Ministry of Jal Shakti, New Delhi | Shri Sumit Priyadarshi |
|  | National Chemical Laboratory, Pune | Dr. Vinay M. Bhandari |
|  | National Institute of Technology Calicut, Kozhikode | Dr Noel Jacob Kaleekkal  Dr Anantha Singh T S |
|  | National Institute of Cholera and Enteric Diseases, Kolkata | Dr. Asish Kr. Mukhopadhyay |
|  | National Institute of Virology, Pune | Dr. Kavita Lole |
|  | Safe Water Network India | Shri Ravindra Sewak  Dr. Shveta Mahajan |
|  | Water Quality India Association, Mumbai | Dr. Neeraj Gupta  Shri Mukthesh Pathi |
|  | In Personal Capacity | Dr. T. N. V. V. Rao |
|  | In Personal Capacity | Dr. S. Muralidhara Rao |
|  | Food & Agriculture Department, BIS, New Delhi | Smt. Nitasha Doger, Sc. D  & Member Secretary, FAD 30 |

***Annex B***

**ANNUAL PROGRAMME FOR STANDARDIZATION (APS) FOR 2024-25**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl No.** | **IS No.** | **TITLE/ SUBJECT** | **Category** | **Priority Grading** | **Stage as on date** | **Action to be taken** | **Remarks** | **Carried Over** |
| 1 | NWIP | Microfiltration (MF) based Water purification systems | NWIP | Grade 7- Proposal from any other stakeholder | NWIP proposed | ARP |  | No |
| 2 | FAD/30/24246 | Code of practice for design installation and operation maintenance of community drinking water treatment plants (CWTPS) | NWIP | Grade 7- Proposal from any other stakeholder | P-Draft | MS/Committee | Doc. No. FAD/30/ 24246 | Yes |
| 3 | FAD/30/22352 | FAD 30 Ultrafiltration (UF) membrane-based Point-of-Use (PoU) drinking water treatment system — Specification | NWIP | Grade 7- Proposal from any other stakeholder | WC-Draft | MS/Committee | Doc. No. FAD/30/22352 | Yes |
| 4 | IS 14724: 1999 | Ultraviolet water disinfection system —Specification' (first revision) | Pre 2000 | NA | WC-Draft | MS/Committee | Doc. No. FAD/30/23542 | Yes |
| 5 | IS 12742 : 1989 | Guide for defluoridaton of water for drinking purposes (Chemical Treatment Method) | Pre 2000 | NA |  | ARP | Transferred from CHD | No |
| 6 | IS 12918: 1990 | Guide for removal of iron from water for rural water supply | Pre 2000 | NA |  | ARP | Transferred from CHD | No |
| **Total IS due under five yearly review for 2024-25 = NIL** | | | | | | | | |