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BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Date	Time	Venue
Drinking Water & Carbonated Beverages Sectional Committee, FAD 14	33rd	**23 February 2024 (Friday)**	**1430 h**	**Through WebEx**

CHAIRPERSON:

Dr. Sridevi Annapurna Singh
Director
Central Food Technological Research Institute (CFTRI)
Mysore (Karnataka)

MEMBER SECRETARY:

Ms Nitasha Doger
Scientist-D
Food & Agriculture Department
Bureau of Indian Standards, New Delhi

ATTENDANCE SHEET– Please see ***Annex-A*** **(Page 8)**

ITEM 0 GENERAL

0.1 Welcome

Ms. Nitasha Doger, Member Secretary FAD 14 extended a warm welcome to the Chairperson and the members of Drinking Water & Carbonated Beverages Sectional Committee, FAD 14 to its 33rd meeting and thanked them for sparing their valuable time for supporting BIS, the National Standards Body of India in its pursuit of standardization.

0.2 Opening Remarks by the Chairperson, FAD 14

Dr. Sridevi Annapurna Singh, Chairperson of the Committee in her opening remarks encouraged the members for active participation in the meeting to arrive at concrete decisions by the end of the meeting.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee confirmed the Minutes of the last (32nd) meeting of Drinking Water & Carbonated Beverages Sectional Committee, FAD 14 held on 25 August 2023 as circulated vide email dated 20 September 2023.

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ITEM 2 SCOPE, ACTIVITIES & COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 SCOPE & ACTIVITIES OF THE COMMITTEE

The Committee noted the information given in agenda item **2.1** regarding the scope & activities of the Committee.

2.2 Composition of the Sectional Committee

2.2.1 The Committee reviewed the updated composition of FAD 14 along with the attendance record of last three meetings including the attendance in 33rd meeting. Considering lack of participation from Food Safety and Standards Organization of India (FSSAI) 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, FSSAI may be invited in relevant Committee meetings or may be involved as experts in relevant expert panels, if required.

2.2.2 Co-option Request from Reliance Consumers Products Limited

The Committee considered the request for Co-option from Reliance Consumers Products Limited and decided not to co-opt them as member of the Committee as membership of industry is encouraged through industry associations. The Committee decided to add them in the mailing list of FAD 14 to circulate the drafts under wide circulation.

ITEM 3 INDIAN STANDARDS PUBLISHED/ UNDER PUBLICATION

The Committee noted the information provided under agenda item 3 regarding publication status of Doc FAD 14 (18832) and Doc FAD 14 (18833) i.e. Packaged natural mineral water — Specification (*third revision*) and Packaged drinking water (other than packaged natural mineral water of IS 13428) — Specification (*third revision of IS 14543*) respectively.

ITEM 4 DRAFT INDIAN STANDARDS COMPLETED WIDE CIRCULATION

4.1 The Committee noted that the draft Indian Standards for Code for hygienic conditions for soft drink manufacturing units (*First Revision of IS 5837*) and Code for hygienic conditions for manufacture handling and sale of refrigerated drinking water and ice for human consumption (*First Revision of IS 6969*) have completed WC period of 60 days.

4.2 Committee deliberated on the comments received on **Doc: FAD 14 (24042) WC:** Code for hygienic conditions for soft drink manufacturing units (*first revision of IS 5837*) from Dr. Anil Kumar Mishra, Delhi Jal Board and decided as follows:

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Sl. No.	Clause/ Table/ Fig. No.	Justification	Proposed change	Decision of the Committee
1.	6.2 Bottle Washing 6.2.1 Para 7	**In clause No. 6.2.1 of above subjected document**, it has been mentioned that residual chlorine shall be determined by the colour comparison method using **O-Tolidine solution**.	But now OT method has been obseleted by BIS in the IS:3025 Part 26 due to its carcinogenic nature and against the principle of Green Chemistry (which is required to save environment). In the place of OT, **DPD powder/tablet/solution may be used (which follow the guidelines of green chemistry)**.	The Committee considered the comment and decided to refer IS 3026 (Part 26): 2021 for determination of residual chlorine in water in clause 6.2.1 of the draft.
2.	9 Water supply 9.5 Para 5	**In clause No. 9.5 of this document,** mentioned that the water using for the manufacturing of soft drinks should be periodically tested **Chemically as well as bacteriologically.**	According to our view, this water should be periodically tested for presence of Viruses (Enteroviruses), Fungi (Yeast and Mould) Micro algae etc. also by using advanced and sophisticated technologies approved by various national and international organizations. Testing of above microorganisms are important because in surface/ ground water different type of emerging chemical (Micro plastics, P-FOS, radioactive elements) and microbiological (Superbugs, COVID virus and other life threatening microbes etc.) contaminants have been reported by various national and international organization and these contaminants are very harmful for consumers.	The Committee deliberated that sub-sub regulation 2.10.6 of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011, prescribes use of water conforming to the standards for Packaged Drinking Water or mineral water for carbonated beverages under Food Safety and Standard Act, 2006. The Committee accordingly decided to refer to IS 14543/ IS 13428 under clause 9.5 of the draft for periodic testing of water using for the manufacturing of soft drinks. On similar lines, the Committee further decided to refer IS 14543/ IS 13428 under clause 9.1 for ingredient water in place of IS 10500.

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The Committee decided to finalize the **Doc: FAD 14 (24042) WC:** Code for hygienic conditions for soft drink manufacturing units (*first revision of IS 5837*) for publication incorporating the above agreed changes.

4.3 The Committee noted that no comments have been received on the document **Doc: FAD 14 (24043) WC:** Code for hygienic conditions for manufacture handling and sale of refrigerated drinking water and ice for human consumption (F*irst Revision of IS 6969*) and decided to finalize the document for publication.

ITEM 5 DRAFT INDIAN STANDARDS COMPLETED CIRCULATION AS P-DRAFT

During the meeting, the Committee considered the requests received from various stakeholders to give more time to examine and comment on the P drafts and accordingly decided to give additional 30 days period to the committee members to comment on the following P drafts:

Sl. No.	Doc. No.	Title
1.	FAD/14/24640	Code for hygienic conditions for packaged drinking water units
2.	FAD/14/24641	Code for hygienic conditions for packaged natural mineral water units

ITEM 6 ACTIONS ARISING OUT OF PREVIOUS MEETING:

Review of Maximum Limit for Uranium Specified in IS 10500: 2012, Drinking Water— *Specification*

6.1 The Committee noted the background information given under item 6.1 regarding information on introduction of maximum limit of Uranium in IS 14543, IS 13428 & IS 10500 in February 2021.

6.2 The Committee further noted that substantial comments have been received on the proposal from Dr. Sanjay Kumar Jha from BARC, Mumbai for relaxing the limits of Uranium in IS 10500: 2012, Drinking Water— Specification from 30 ppb to 60 ppb. These comments were largely against recommending any change in the presently specified limit of Uranium in IS 10500 (i.e. 30 ppb) in absence of any research data or India specific health studies considering renal toxicity and carcinogenicity exhibited by Uranium.

6.3 During the meeting, representative form Ministry of Jal Shakti deliberated that a systematic study on human health and safety is needed to consider any relaxation in the specified limit for Uranium. He further informed that the proposal has also been presented by Dr. Jha to Director, National Jal Jeevan Mission and is still under deliberations and therefore it will be inappropriate to recommend any such change in Indian standard at this stage. Representative from WHO, India referred to the WHO Guidelines for Guidelines for Drinking-water Quality

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(GDWQ) 4th Edition which states that, 'National authorities also need to be aware that radionuclides such as uranium are chemically toxic, and the allowable concentrations in drinking-water may be determined by a radioisotope's toxicological rather than its radioactive properties. He further added that Nephritis is the primary chemically induced effect of uranium in humans. While GDWQ is international guidance designed to help countries develop customized regulations and standards, the national standards may specify more stringent limits for specific parameters based on specific situation of the country and many countries have adopted more stringent limits of Uranium than the WHO provisional guideline value of 30 µg/l. In absence of any national study on human populations or preferred source of health-related information, it is a cautious call to stick to the WHO provisional guideline value of 30 µg/l.

6.4 Dr. Jha presented his detailed response on the comments received which is embedded below as ***Annex B:***

Annex B, Dr. Jha response.pdf

6.5 The Committee reiterated that the specified maximum limit of uranium as 30 µg/l is based on chemical toxicity (renal pathology) of uranium whereas AERB's 60 µg/L limit is based on radiological toxicity. The Committee was of the view that in absence of any risk assessment data/ human health based global or national studies to ascertain that uranium in drinking water at levels up to 60 µg/L will have no adverse health impacts, it is not recommended to risk any segment of human population to higher levels uranium. The Committee further decided that the detailed response shared by Dr. Jha during the meeting may be shared with the Committee members by BIS secretariat for further review and examination.

ITEM 7 COMMENTS ON PUBLISHED STANDARDS

7.1 Comments from Western Regional Laboratory (WROL) on Annex C and Annex D of IS 13428: 2005, Packaged natural mineral water — Specification

The Committee considered the comments received from WROL on IS 13428 (Annex D)- Detection and Enumeration of Pseudomonas aeruginosa and IS 13428 (Annex C)-Detection and Enumeration of the Spores of Sulphite Reducing Anaerobes (Clostridia) as an outcome of Intralab Manak Manthan organized by WROL on 10 Nov 2023. The committee opined that the comments are specifically on microbiological testing and would require deliberations by a focused group. The Committee accordingly constituted following Working Group on Microbiological testing of water:

(i) Dr. Mukesh Kapoor, CSIR- CFTRI, Mysore – ***Convenor***
(ii) Dr. Anil Kumar Mishra, Delhi Jal Board, New Delhi
(iii) Dr. Sandhya Shrivastava, Bhavan's Research Center (Microbiology), Mumbai
(iv) Dr. Nilesh Amritkar, Envirocare Laboratories Private Limited, Thane
(v) Nominated Expert from BIS Central Lab, New Delhi

The Committee referred the comments received from WROL to the above working group for consideration and recommendation in the matter.

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7.2 Comments from Eastern Regional Laboratory's (EROL) on Annex C and Annex D of IS 13428: 2005 and IS 14543: 2016

The Committee considered the comments shared by EROL on IS 13428 and IS 14543 for deliberations during Manak Mantrana on 16 January 2023 as given under agenda item **7.2** & **7.3**. The Committee referred these comments to the Working Group constituted on Microbiological testing of water for their consideration and recommendation in the matter. (*Please refer item* **7.1**).

7.3 Comments from M/s HEALTHIFY H2O LLP on Maximum Permissible Limit of Copper in IS 14543 for Packaged Drinking Water (Other than Packaged Natural Mineral Water) — Specification.

7.3.1 The Committee noted the information provided under agenda item **7.4** that the Food Safety and Standards (Packaging) First Amendment Regulations, 2022 and amendment 8 to IS 14543:2016 allows use of food grade packaging materials other than plastic, namely paper and paper board materials; glass; and metal and metal alloys which may or may not contain plastic as component, compatible with the water to be packaged. M/s HEALTHIFY H2O LLP are accordingly using 20-litre copper jar to supply packaged drinking water. However, they are not able to attain *max* permissible limit of Copper (as Cu) as 0.05 mg/l due to the packaging material metal, Copper and have requested revising the permissible limit of Copper (as Cu) to 2.0 mg/1, *max* when Copper is used as packaging material.

7.3.2 The Committee recalled that BIS has earlier shared its recommendation with FSSAI for considering revision of *max* permissible limit of Copper in IS 14543 and during the 32nd meeting of the committee held on 20 July 2023 , the committee noted that revision of the maximum permissible limit of Copper in IS 14543 would entail parallel amendment in *Food Safety and Standards (Food Products Standards and Food Additives) Regulations*, 2011 as the standard is covered under mandatory BIS certification as per the FSS Regulations.

7.3.3 As the matter regarding review of *max* permissible limit of Copper in Packaged Drinking Water (Other than Packaged Natural Mineral Water) is under deliberation at FSSAI, the committee decided to refer the request received from M/s HEALTHIFY H2O LLP for revising the permissible limit of Copper (as Cu) to 2.0 mg/1, *max* when Copper is used as packaging material to FSSAI for their consideration and examination.

IITEM 8 WITHDRAWAL OF IS 5887 (PART-7) : 1999 BY FOOD MICROBIOLOGY SECTIONAL COMMITTEE, FAD 31

8.1 The Committee noted the information provided under agenda item 8 regarding recommendation from the Food Microbiology Sectional Committee, FAD 31 to withdraw IS 5887 (Part 7): 1999 considering its limitations.

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8.2 The Committee noted that IS 5887 (Part 7) is presently referred in IS 13428 and IS 14543 for determination of *Shigella*. The Committee accordingly decided to refer the matter regarding considering IS 16429 : 2018 /ISO 21567 : 2004 'Microbiology of food and animal feeding stuffs — Horizontal method for the detection of *Shigella* spp.' in place of IS 5887 (Part 7) : 1999 to the Working Group constituted on Microbiological testing of water for their examination and recommendation. (*Please refer item* **7.1**).

ITEM 9 REVIEW OF INDIAN STANDARDS

The Committee noted the information given under item 9 of the agenda that no Indian Standard is becoming due for review during 2024-25 under five yearly review criteria.

ITEM 10 FINALISATION OF ANNUAL ACTION PLAN FOR 2023-24

The Committee noted the progress made under the AAP for the year 2023-24 for FAD 14. The Committee decided to carry forward the ongoing work of Annual Action Plan for 2023-24 and accordingly finalized the Annual Programme for Standardization (APS) for 2024-25 embedded below as ***Annex C*:**

Annex C (APS).xlsx

ITEM 11 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
Drinking Water and Carbonated Beverages Sectional Committee, FAD 14	6	12 July 2024	10 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.

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Annex A

Attendance for the 33rd meeting of Drinking Water and Carbonated Beverages Sectional Committee, FAD 14 held on 23rd February 2023

Sl. No.	Name of Organization	Representative
1.	Dr. Sridevi Annapurna Singh Chairperson FAD 14 & Director, CSIR-Central Food Technological Research Institute (CFTRI)	
2.	All India Association of Natural Mineral Water Industry, Ahmedabad	Ms. Avanti mehta
3.	All India Food Processors Association, New Delhi	Shri Venkatesh Sosle
4.	All India Network Project on Pesticide Residues, New Delhi	Dr. Vandana Tripathy
5.	Bhabha Atomic Research Centre, Food Technology Division (BARC), Mumbai	Dr. Sanjay Kumar Jha Dr. Sunil Kumar Sahoo
6.	Bhavan's Research Center (Microbiology), Mumbai	Dr. Sandhya Shrivastava Dr. Nishith Desai
7.	Central Ground Water Board (CGWB), Faridabad	Shri Yashvir Singh
8.	Confederation of Indian Industry (CII), New Delhi	Ms. Neha Aggarwal Ms.Mamta Arora Budhiraja
9.	Confederation of Indian Food Trade & Industry (CIFTI)-FICCI, New Delhi	Shri Deepak Jasyal
10.	Consumer Education and Research Centre (CERC), Ahmedabad	Dr. Dolly A. Jani
11.	Consumer Research, Education, Action, Training and Empowerment (CREATE), Tamil Nadu	Dr. P. Duraisingam
12.	CSIR - Central Food Technological Research Institute (CSIR-CFTRI), Mysore	Dr. Mukesh Kapoor Ms.Vanajakshi
13.	CSIR - National Environment Engineering Research Institute, Nagpur	Dr. Noor Afshan Khan
14.	Delhi Jal Board, New Delhi	Dr. Anil Kumar Mishra
15.	Envirocare Laboratories Private Limited, Thane	Dr. Nilesh Amritkar
16.	Member Secretary, CHD 36 (Water Quality Sectional Committee) of BIS	Smt. Shubhanjali Umrao
17.	Food Research and Analysis Centre, New Delhi	Shri Anil Kumar
18.	Federation of All India Packaged Drinking Water Manufacturers Association (FIPMA)	Shri. Apurva Narendra Doshi
19.	ICMR - National Institute of Nutrition, Hyderabad	Dr. C. S. Surya Goud

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20.	ICMR-National Institute of Cholera and Enteric Diseases, Kolkata	Dr. Ranjan Kumar Nandy
21.	Indian Beverage Association, New Delhi	Shri. Rajendra Mohan Dobriyal
22.	Ministry of Jal Shakti, Department of Drinking Water and Sanitation, New Delhi	Shri Sumit Priyadarshi
23.	Mohan Meakins Limited, Ghaziabad	Dr. Ch. Shalu Singh Mr. Sudeep Tyagi
24.	Safe Water Network, New Delhi	Shri Ravindra Sewak Dr. Shveta Mahajan
25.	The Greater Chennai Packaged Drinking Water Manufacturers Association, Chennai	Shri J. Aanthnarayanan Shri E. Saravanan
26.	VOICE, New Delhi	Dr. Rajiv Jha
27.	Water Quality India Association, Mumbai	Shri. V A Raju Dr. Sathish Kumar
28.	World Health Organization, New Delhi	Shri Manjeet Singh Saluja
29.	In personal capacity	Shri. O. N. Srivastava
30.	Food & Agriculture Department, BIS New Delhi	Ms. Nitasha Doger Sc- D & Member Secretary, FAD 14

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