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भारतीय मानक ब्यूरो/BUREAU OF INDIAN STANDARDS

खाद्य एवं कृषि विभाग /Food and Agriculture Department

अनुमोदित कार्यवृत्त / APPROVED MINUTES

अनुभागीय समिति का नाम Name of the Sectional Committee	डेयरी उपकरण अनुभागीय समिति, एफएडी 33 Dairy Equipment Sectional Committee, FAD 33
बैठक क्रमांक/No. of Meeting	3 rd
दिन और दिनांक Day and Date	सोमवार, 25 नवंबर 2024 Monday, 25 November 2024
समय Time	10:00 बजे 10:00 hrs.
बैठक का तरीका Mode of the meeting	आभासी Virtual
स्थान Venue	भारतीय मानक ब्यूरो (मुख्यालय), मानक भवन, नई दिल्ली, दिल्ली, भारत Bureau of Indian Standards (HQ), New Delhi, Delhi, India
अध्यक्ष/Chairperson	डॉ. प्रद्युम्न बरनवाल/ Dr. Pradyuman Barnwal (अध्यक्ष, एफएडी 33/Chairperson, FAD 33) प्रमुख/Head (डेयरी अभियांत्रिकी प्रभाग/Dairy Engineering Division) आईसीएआर- राष्ट्रीय डेयरी अनुसंधान संस्थान, करनाल/ ICAR- National Dairy Research Institute, Karnal
सदस्य सचिव/Member Secretary	श्री प्रदीप शर्मा/Mr. Pradeep Sharma (सदस्य सचिव, एफएडी 33/ Member Secretary, FAD 33) वैज्ञानिक-बी/सहायक निदेशक/Scientist-B/Assistant Director खाद्य एवं कृषि विभाग/Food & Agriculture Department भारतीय मानक ब्यूरो/Bureau of Indian Standards नई दिल्ली/New Delhi - 110002

Attendance is given in **Annex A** (see Page 7)**ITEM 0 GENERAL**

0.1 Welcome

Mr Pradeep Sharma, Member Secretary, FAD 33 cordially welcomed all the members to this 3rd meeting of Dairy Equipment Sectional Committee, FAD 33. He apprised the members about the importance of their inputs in this committee as directly influence the national standardization process in the dairy equipment sector. He urged all the members for their active participation and timely inputs in any documents of the committee which will be crucial in the revision of old and development of new standards, especially in the revision of those which were developed prior to year 2000.

0.2 Opening Remarks by the Chairman

Dr P. Barnwal, Chairperson of FAD 33, extended his warm welcome to all the esteemed members present in the meeting. He highlighted the critical role of dairy engineering in revolutionizing the dairy sector and underscored the importance of formulating robust Indian Standards. He emphasized the collaborative efforts needed among stakeholders to address emerging challenges and leverage technological advancements for sustainable growth in the sector.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE SECOND MEETING

The committee confirmed the minutes of the last (2nd) meeting of Dairy Equipment Sectional Committee, FAD 33 held on 29 May 2024 through hybrid mode as circulated to the members vide email dated 10 June 2024.

ITEM 2 SCOPE, ACTIVITIES & COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 Scope & Activities of The Committee

The committee noted the scope and program of work of FAD 33 as given in Item 2.1 of the agenda.

2.2 Composition of The Sectional Committee

The committee noted the updated composition of the committee as enclosed in the Annex 2 of the agenda and the following decisions were taken:

2.2.1 The committee requested Mr Somnath Pagire, representative, Tetra Pak India Private Limited, Pune to send the updated nomination from his organization.

2.2.2 The committee noted that the nominations have been received from the following organization:

- a) College of Dairy Technology, Tirupati
- b) National Dairy Development Board, Anand

2.2.3 The committee noted that the nomination is awaited from following organizations. However, for having balanced participations from Industry in the committee, it was decided to retain these organizations and send the reminder once again for the nomination.

- a) GOMA Engineering Private Limited;
- b) GEA; and
- c) Indian Dairy Engineers Association.

ITEM 3 FINALISATION OF DRAFT INDIAN STANDARDS

3.1 Doc. No. FAD 33 (25483) WC Draft Revision IS 2336 Stainless Steel Milk Vats - Specification (First Revision)

The Committee noted that this draft revision which was prepared by FAD33/P2 “Dairy Equipment-II” under the convenorship of Mr Pravin Prajapati, IDMC, Anand and has completed its WC stage of 60 days with the last date of comment as 29 June 2024. The committee deliberated upon the comments received from Mr Pravin Prajapati, and Dr Bhupendra M Ghodki, IIT, Kharagpur received during the wide circulation period.

Subsequently, after considering the comments, the committee decided to keep the thickness of various capacity of vats as given in this draft revision as minimum thickness.

Thereafter, the committee finalized the draft revision as enclosed in *Annex 5* of the agenda.

3.2 Doc. No. FAD 33 (26132) WC Amendment No. 2 to IS 16440 : 2016 Stainless Steel Milk Cans — Specification

The Committee noted that this draft amendment which was prepared by FAD32/P1 “Dairy Equipment-I” under the convenorship of Mr Subramani, Lactalis India, Chennai and has completed its WC stage of 60 days with the last date of comment as 10 September 2024.

Subsequently, the committee after due deliberation decided to finalize this amendment as enclosed in *Annex 6* of the agenda.

ITEM 4 APPROVAL OF THE DRAFT STANDARDS FOR WIDE CIRCULATION (WC)**4.1 Draft Revision of IS 6684 : 1972 Milk Can Trolleys — Specification (First Revision)**

The committee noted this draft revision as prepared by the panel FAD33/P2 “Dairy Equipment-II” and deliberated upon the recommendations made by the panel. After due deliberation, the committee decided to:

- a) give the radius of curvature of rubber lining support as per the dimensions of 40 litres and 50 litres, separately, as given in IS 1825 : 1983 “Specifications of Aluminium Alloy Milk Cans (second revision)”;
- b) provide the suitable tolerances on the dimension of each component of trolley as to be received from Mr Pravin Prajapati.

Subsequently, after incorporating above said changes, the committee decided to send this draft revision as enclosed in *Annex 7* of the agenda into wide circulation for a period of 60 days to seek comments.

4.2 Draft Revision of IS 2342 : 1963 Specification for Manually Operated Milk-Can Washer (First Revision)

The committee noted this draft revision as prepared by the panel FAD33/P2 “Dairy Equipment-II” and deliberated upon the recommendations made by the panel. After due deliberation, the committee decided to send this draft revision as enclosed in *Annex 8* of the agenda into wide circulation for a period of 60 days.

4.3 Draft Revision of Indian Standard IS 1825 Specification for Aluminium Alloy Milk Cans (Third Revision)

The committee noted this draft revision as prepared by the panel FAD33/WG7 “Revision of Indian Standard IS 1825 : 1983 Specification for Aluminium Alloy Milk Cans” under the convenorship of Dr Ravi Prakash, Scientist, ICAR-CIPHET, Ludhiana.

Subsequently, the committee deliberated upon the recommendations made by the working group and accepted all the changes made by the working group in this draft revision.

Thereafter, the committee decided to keep the thickness of anodization as 12 µm to 15 µm (*see 6.4 of Annex 9*) and to send the draft revision as enclosed at *Annex 9* of the agenda into wide circulation for a period of 60 days to seek comments.

5 PHASING OUT OF MERCURY BASED PRODUCTS IN INDIAN STANDARDS

The committee noted that the use of mercury is mentioned in the following Indian Standards, and which must be either removed or replaced by 2025 as per the direction received from Ministry of Environment and Forests.

- a) IS 1223: 2001 Apparatus for determination of milk fat By Gerber method —Specification
- b) IS 2803: 1964 Specification for capillary Pipette for direct microscopic Count of milk
- c) IS 9585: 2021 Lactometers — Specification

In the view of same, the committee in its last meeting decided to find the suitable alternative of mercury from the relevant ISO standards. Accordingly, the committee reviewed ISO 19662 / IDF 238 Milk — Determination of fat content — Acido-butyrometric (Gerber method), however, not found any tangible outcome.

Therefore, the committee asked member secretary to send these standards (a, b & c) to Jupiter Glass Works, New Delhi to seek their inputs on the alternative of using mercury in these standards.

ITEM 5 NEW WORK ITEM PROPOSAL

The committee noted that the new subject for development of Indian Standard on Plastic Milk Can should not be taken up in the committee as it directly violates the guidelines issued in the schedule IV of Food Safety and Standards Authority of India (FSSAI), wherein, it is mentioned that “The cans/containers made up of mild steel metal and plastic material used for storage and transportation of milk and milk products shall not be allowed.” Therefore, the committee decided to drop this subject.

ITEM 6 REMAINING SUBJECTS

The following decisions were taken upon the remaining agenda items in the committee:

Sl. No.	Subject	Current Status	Decision Taken
1	Draft Indian Standard on “Continuous Milk Pasteurizer — Specification”	The panel FAD33/Panel 1 “Dairy Equipment-I” in its 2nd meeting held on 9 July 2024 at BIS-HQ, Manak Bhawan, New Delhi recommended following actions to be taken up:	The committee noted the status and requested to expedite the work.
2	Draft Indian Standard on “Continuous Milk Sterilizer — Specification”	a) Mr R. K. Malik, IDMC Anand to provide the material requirement for all the necessary components of pasteurizer as per the latest	

		<p>manufacturing practices as to be filled in table 1 of draft as attached.</p> <p>b) Mr Subramani, Lactalis India, Chennai to provide other remaining inputs as asked in the draft as attached.</p> <p>c) Dr S. Ravikumar to provide the labelled general layout (line diagram) of pasteurizer.</p> <p>However, the inputs are awaited as asked in b & c.</p>	
3	Draft Indian Standards on “Cleaning-in-Place (CIP) of Dairy Factory Equipment — Code of Practice”	<p>The committee in its last meeting decided to send this draft as a preliminary draft (P-draft), however, due to some technical clarifications required, the draft was sent back to Dr S. Subramani, Lactalis India, Chennai.</p> <p>Therefore, as no inputs are received, the draft is not circulated as P-draft.</p>	
4	IS 11585 : 2009 Insulated stainless steel silos for milk Storage capacity 30, 40, 60 and 100 kilo litres — Specification (first revision)	<p>This standard is under the working group FAD33/WG3 which is under the convenorship of Mr Pravin Prajapati, IDMC, Anand. However, as the following organizations were also decided as the member of this WG and they have not nominated any experts, the first meeting of this WG could not take place.</p> <p>a) GOMA Engineering, Thane b) Repute Engineers Private Limited, Pune c) GEA, Vadodara</p>	<p>The committee noted the current status and requested Mr Pravin Prajapati to convene the meeting of the group in order to expedite the work, however, the organizations (a, b, & c) shall be retained and included in the group once the nominations are received therefrom.</p>
5	IS 2343 : 2009 Specification for can washing trough	<p>This standard is under, FAD33/Panel 2 “Dairy Equipment-II”, and the committee in its last meeting asked this panel to provide the draft revision of this standard on or before 29 August 2024. However, in its 1st meeting, the panel reviewed the draft and noted that can washing troughs are no longer used directly and have been modified by the inclusion of scrubbers. Therefore, considering that the standard is very old and outdated, the panel recommended that committee FAD 33 withdraw this standard. Additionally, the panel recommended that the committee develop a new standard for can scrubbers, incorporating provisions for a can rinsing chamber.</p>	<p>The committee noted the recommendation made by the FAD33/Panel 2, however, the committee decided not to withdraw this standard. The committee noted that the can washing troughs are still in use as appraised by Mr Saurabh Chaudhary, Representative, Mother Dairy Fruit and Vegetable Limited, Delhi.</p> <p>Subsequently, the committee requested the panel to revise this standard where provisions for can scrubber and a can rinsing chamber may also be suitably incorporated.</p>
6	IS 2492 : 2019	The committee requested Member	The committee noted the status

	Stainless Steel Milk Tankers (second revision)	Secretary to send the copy of this standard to those manufacturers of SS milk tankers who are interested in providing their inputs. Accordingly, the list of manufacturers was identified from the Indian Dairyman - Magazine and the copy of IS was send to all those manufacturers. However, no comments are received so far.	and it was decided to send the reminder once again for providing their inputs.
7	IS 5253 : 1969 Guidelines for Cleaning and Sterilizing Dairy Equipment.	The committee in its last meeting decided to change the tittle of this standard to “Guidelines for Cleaning and Sanitation of Dairy Plant” and constituted a working group FAD33/WG6 under the convenorship of Mr Sanjeev Sharma. The group was asked to provide the draft revision on or before 29 August 2024, however, the draft is yet to be received.	The committee requested member secretary to send a reminder to Mr Sanjeev Sharma, convenor, FAD33/WG6 for convening the first meeting in order to expedite the work of the group.

ITEM 6 TIME AND PLACE FOR THE NEXT MEETING

The committee decided to schedule the next meeting in the first week of March 2025, however, the place for the next meeting was not decided.

ITEM 7 ANY OTHER BUSINESS

There being no agenda item, the meeting concluded with hearty vote of thanks by the member secretary.

ANNEX-A

**ATTENDANCE OF
3RD MEETING OF DAIRY EQUIPMENT SECTIONAL COMMITTEE, FAD 33**

Date: 25 November 2024
Meeting Type: Virtual Meeting
Venue: Mankalaya (Room No. 414),
 BIS (HQ), Manak Bhawan, New Delhi

Sl. No.	Organization Name	Members Name
1.	National Dairy Research Institute, Karnal	Dr P. Barnwal (<i>Chairperson</i>) (<i>Virtual</i>)
2.	College of Dairy Technology, Tirupati	Dr B. M. Manjunatha (<i>Virtual</i>)
3.	ICAR - Central Institute of Post-Harvest Engineering & Technology (CIPHET), Ludhiana	Dr Ravi Prakash (<i>Virtual</i>)
4.	ICAR - National Dairy Research Institute, Karnal	Dr Chitranayak Sinha (<i>Virtual</i>)
5.	Indian Institute of Technology Kharagpur, Kharagpur	Dr Bhupendra M Ghodki (<i>Virtual</i>) Dr. Ronit Mandal (<i>Virtual</i>)
6.	Indigenously Manufacture Dairy Components Limited, Vithal Udyognagar	Mr Pravin Prajapati (<i>Virtual</i>)
7.	Jupiter Glass Works, New Delhi	Mr Amreek Singh Puri (<i>Virtual</i>)
8.	Mother Dairy Fruit and Vegetable Limited, Delhi	Mr Anuj Koundal (<i>Virtual</i>) Mr Saurabh Chaudhary (<i>Virtual</i>)
9.	National Dairy Development Board, Anand	Mr Sachin Sarvaiyya (<i>Virtual</i>)
10.	National Institute of Food Technology, Entrepreneurship and Management, Thanjavur	Dr S. Shanmugasundaram (<i>Virtual</i>)
11.	National Institute of Technology, Rourkela	Dr Chandrakant Dalbhat (<i>Virtual</i>)
12.	Punjab State Cooperative Milk Producers Federation Limited, Punjab	Mr Harjinder Singh (<i>Virtual</i>)
13.	SMC College of Dairy Science, Anand	Mr Yogesh Kumar Vitthalbhai Vekariya (<i>Virtual</i>) Ms Arpita Muljibhai Rathva (<i>Virtual</i>)
14.	Tetra Pak India Private Limited, Pune	Mr Somnath Pagire (<i>Virtual</i>)
15.	Food & Agriculture Department, BIS, New Delhi	Shri Pradeep Sharma (Scientist - B/Assistant Director)