

**BUREAU OF INDIAN STANDARDS
(MINUTES)**

| Name of the Committee | Number of Meeting | Date | Time | Venue |
|--|--------------------------------|---------------------------------------|----------------|---|
| Sugar Industry Sectional Committee, FAD 2 | 18th Meeting | 23rd September 2022 | 3:30 PM | National Sugar Institute, Kanpur, UP (Hybrid Mode) |

Chairman

Prof. Narendra Mohan
Director, National Sugar Institute,
Kanpur, UP

Member Secretary

RAJPAL
Scientist-D
BIS, New Delhi

ITEM 0 GENERAL

01. Welcome address by Member Secretary

Sh. Rajpal, Scientist-D & Member Secretary, Food and Agriculture department, welcomed the Chairperson and all the members to the 18th meeting of Sugar Industry Sectional Committee, FAD 02 and thanked them for sparing their valuable time for supporting BIS in its pursuit of standardization.

0.2 Opening Remarks by the Chairman, FAD 02

Prof. Narendra Mohan, Chairperson, FAD 02 welcomed the members to the 18th meeting of FAD 02 and thanked them for participation and requested all the members to extend active participation in the proceedings of the meeting. He also advised the members to express their views freely and contribute their expertise for up gradation of standards. He desired that the meeting should be held more frequently and expressed concerned over lean attendance in meeting. He requested the esteemed committee members to be more pro-active in responding to the Indian Standards drafts circulated as their inputs and feedbacks are critical for BIS specially standards which are to be revised such as Test methods-sugar and sugar product, factory layout and Hygiene in Sugar factory.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

1.1 The minutes of the seventeenth meeting of Sugar Industry Sectional Committee, FAD 2 confirmed by the committee which held on Tuesday 25th January 2022 circulated vide circulated vide email dated 16th February 2022. However, no comments received.

ITEM 2 SCOPE, ACTIVITIES & COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 The Committee considered the agenda item and noted the scope of FAD 2 given in Annex I of agenda.

2.2 The Committee considered the agenda item and examined the composition of FAD 2 given in Annex II of agenda. Committee directed BIS Secretariat to prepare the list of member organizations which has not attended last three meetings. Annexure-II A is attached herewith as per the decision of committee.

ITEM 3 ACTIONS ARISING OUT OF PREVIOUS MEETING

| Sl No | Ref. Clause of agenda of 17th meeting of sugar Industry | Action taken/Status | Decision of the Committee |
|--------------|--|---|---|
| 1 | <p>Item 2 scope, Activities & composition of Sectional Committee 2. 2 Following organizations/Individual were recommended for withdraw due to lack of participation by the committee in its 17th meeting.</p> <p>a) National Co-operative Development Corporation, New Delhi b) Food Corporation of India, New Delhi c) Prof. S. K. Gupta- Personal Capacity</p> | <p>FADC in its meeting approved the withdrawal of followings:</p> <p>a) National Co-operative Development Corporation, New Delhi b) Food Corporation of India, New Delhi c) Prof. S. K. Gupta- Personal Capacity</p> | <p>Committee noted the same for information</p> |
| 2 | <p>Committee decided to co-opt the following organizations</p> <p>a) Central Food Technological Research Institute (CFTRI). Mysore b) National Research Development Corporation, New Delhi c) Dr Sushil Solomon- Personal Capacity d) National Institute Sugar, Kanpur</p> | <p>Communication sent vide email dated 18.08.2022 seeking nomination of following organization</p> <p>a) Central Food Technological Research Institute (CFTRI). Mysore b) National Research Development Corporation, New Delhi Nominations are awaited c) Dr Sushil Solomon- Personal Capacity- Communication could not be sent due to contact details. a)National Sugar Institute, Kanpur provided the Nomination of Principal and Alternate member, Composition updated</p> | <p>Committee decided to seek afresh nominations from National Research Development Corporation, New Delhi. However, Central Food Technological Research Institute (CFTRI), Mysore has provided the nominations of principal and alternate members, hence composition updated accordingly.</p> |

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| 3 | As per the decision of committee in its 17th meeting, seeking afresh nomination of ISGEC Heavy Industry Engineering, Noida | Communication was sent to ISGEC Heavy Industry Engineering, Noida seeking their nomination of Principal and Alternate Member, Nomination received and Composition updated accordingly. | Committee Noted the information |
| 4 | <p>Item 3, Review of Indian Standards:</p> <p>Panel 1 Committee constituted the Panel and assigned the following Indian Standards to review</p> <p>a) Shri Ashok Garg (Convener)- National Sugar Institute, Kanpur</p> <p>b) Shri Deep Malik- Indian Sugar Mills Association, New Delhi</p> <p>c) Shri S Somasundaram- National Fed. of Co-op. Sugar Factories Ltd, New Delhi</p> <p>d) Shri Rajesh Singh- Trivini Engineering & Industries Ltd, Muzaffarnagar</p> <p>e) Prof. S K Gupta- Personal Capacity</p> <p>1. IS 5527:1969 Layout plan for Sugar factory laboratories</p> <p>2. IS 11102:1984 Specification for glass bottles for sugar standards</p> <p>3. IS 14350:1996 Committee decided to refer back the IS 5527:1969 Layout plan for Sugar factory laboratories. Panel needs to review as per the suggestion of committee. Further, changes need to be incorporated as per the deliberation in IS</p> | <p>Third Panel Meeting held on 17 June 2022 wherein Panel deliberated on IS 14350:1996. Copy of Panel Meeting attached as ANNEXURE- 3.</p> <p>Further, no progress could not be made on IS 5527 by the expert Panel.</p> <p>Beside, 11102:1984 Specification for glass bottles for sugar standards has been sent among committee members for 21 days as preliminary draft, thereafter two months for wide circulation. The last date of comment was 31.08.2022</p> | <p>Committee decided that changes suggested by panel to be incorporated into IS 14350:1996 Code for hygienic for sugar factory. Further, decided to send the document as preliminary draft among the committee members for a period of 21 days, thereafter two months for wide circulation. If comments received, to be placed before the committee in the next meeting.</p> <p>Furthermore, committee decided to send the IS 5527:1969 Layout plan for Sugar factory laboratories to Shri K Jagadeesh from Balrampur Chini Mills Ltd. Further, document to be received by 15th of December 2022. Then document to be circulated among the committee members as preliminary draft for a period of 21 days. If comments received, to be incorporated and placed before the committee in the next meeting.</p> <p>Besides, committee decided after due deliberation to finalize the FAD2 (19237) F Specification for glass bottles for sugar (revision of IS 11102) for publication.</p> |

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| | 14350:1996 Code for hygienic conditions for sugar factories. Besides, committee decided that preliminary draft of Indian Standards 11102:1984 Specification for glass bottles for sugar standards may be sent among committee members for 21 days, thereafter two months for wide circulation, if comments received to be placed before the committee in the next meeting. | | |
| 5 | <p>Item3, Review of Indian Standards: Panel 2</p> <p>Committee constituted the Panel and assigned the following Indian Standards to review</p> <ol style="list-style-type: none"> 1. Shri J P Srivastava (Convener)- National Sugar Institute, Kanpur 2. Shri Anurag Goel- ISGEC Heavy Industry Engineering, Noida 3. Shri Sachin Agarwal-Shrijee Process Engineering Works Ltd, Mumbai Shri 4. S Somasundaram- National Fed. of Coop. Sugar Factories Ltd, New Delhi 5. Shri Rajeev Gupta- Jindal Stainless Steel, Hissar <ol style="list-style-type: none"> 1.IS 11238:1985 Specification for hubs for cane knives 2.IS 11492:1985 Rotary Vacuum Filter Screens for Sugar Industry 3. IS 12198:1987 Specification for sprockets for sugar industry Committee | As per the decision of committee, IS 11238:1985 Specification for hubs for cane knives and IS 12198:1987 Specification for sprockets for sugar industry are sent among the committee members for a period 21 days whereas the Wide circulation (WC) of IS 11492:1985 Rotary Vacuum Filter Screens for Sugar Industry has been completed. Last of comment for WC was 31.08.2022, No comment received on WC document | Committee decided that IS 11238:1985 Specification for hubs for cane knives and IS 12198:1987 Specification for sprockets for sugar industry to be sent for wide circulation for a period of two months, if comments received, to be placed before the committee. In case no comments received after the wide circulation period is over, to be sent for publication. Further, committee decided to finalize FAD2 (19242) Rotary Vacuum Filter Screens for Sugar Industry (Revision of 11492) for sending it to publication. |

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| | decided after due deliberation that referred Indian Standards to be sent as preliminary draft among committee members for a period 21 days. If comments received to be incorporated into drafts. Further, documents to be sent for wide circulation for a period of two months, if comments received to be placed before the committee in ne | | |
| 6 | <p>Committee decided after due deliberation to finalize the following Indian Standards for send them to publication.</p> <p>a) IS 12935:1990 Recommended Industrial Screens for Grading Sugar</p> <p>b) IS 13316:1992 Welded Austenitic Stainless-Steel Tubes for Heat Exchanges for Sugar Industry</p> | <p>The following documents sent to publication:</p> <p>a) IS 12935:1990 Recommended Industrial Screens for Grading Sugar</p> <p>b) IS 13316:1992 Welded Austenitic Stainless-Steel Tubes for Heat Exchanges for Sugar Industry</p> | Committee noted the Information |
| 7 | <p>National Sugar Institute shared the draft document of Palm Sugar, Bura and Misri. Committee decided to send the as preliminary draft for 21 days among the committee members.</p> <p>Then, wide circulation for a period of two months. If comments received, to be placed before the committee for deliberation in next meeting.</p> <p>Further, Deep Malik from ISMA and Dr Vasudha Keskar are requested to provide the liquid gur/Jaggary to NSI, Kanpur for analysis purpose.</p> | <p>As per the decision of committee, following Indian Standards were sent into wide circulation:</p> <p>1. FAD 2 (19236) C Palm Sugar Specification (First Revision of IS 14400)</p> <p>2. FAD2 (19226) C BURA- Specification (First Revision of IS 12924)</p> <p>3. FAD2 (19227) C MISRI SPECIFICATION (First Revision of 12906)</p> <p>Last of comment was 04 September 2022. No comments received,</p> | <p>Committee after due deliberation decided to finalize the following Indian Standards for sending them to publication.</p> <p>1. FAD 2 (19236) C Palm Sugar Specification (First Revision of IS 14400)</p> <p>2. FAD2 (19226) C BURA- Specification (First Revision of IS 12924)</p> <p>3. FAD2 (19227) C MISRI SPECIFICATION (First Revision of 12906)</p> |

| 8 | <p>After due deliberation Committee decided that the decision on this subject will be taken after the panel meeting and its recommendations. The panel to give to recommendations by February 2022. Expert panel as under will provide the working draft for Brown and Low Sulphur Sugar</p> <p>a) Dr Vasudha Keskar (Convener) b) Shri Ashok Garg-NSI c) Deep Malik- ISMA d) Mr Vijay Singh- DCM</p> | <p>A panel meeting was held on 25th April 2022 and recommended the changes which are incorporated into working drafts. Copy of Minutes and Working Draft are attached Brown Sugar and Low Sulphur Sugar.</p> | <p>Committee decided after due deliberation for working draft of Low Sulphur Sugar as follows: Colour Value- 65 IU Loss on drying- 0.05, Max Polarization – 99.7, Min</p> <p>Above changes to be incorporated into Low Sulphur Sugar and to be send the document as a preliminary draft among the committee members for a period of 21 days and then for wide circulation for a period of two months. If comments received, to be placed before the committee.</p> <p>Further, Committee decided to incorporate the changes as follows into working draft of brown Sugar</p> <table border="1" data-bbox="1352 824 1835 1333"> <thead> <tr> <th rowspan="2">Characteristics</th> <th colspan="2">Requirement</th> </tr> <tr> <th>Light Brown</th> <th>Dark Brown</th> </tr> </thead> <tbody> <tr> <td>Polarization, Min</td> <td>97.5</td> <td>96.6</td> </tr> <tr> <td>Colour, Max</td> <td>2500</td> <td>4000</td> </tr> <tr> <td>Loss on drying, Max</td> <td>1.0</td> <td>1.5</td> </tr> <tr> <td>Reducing Sugar, Max</td> <td>1.0</td> <td>1.25</td> </tr> </tbody> </table> | Characteristics | Requirement | | Light Brown | Dark Brown | Polarization, Min | 97.5 | 96.6 | Colour, Max | 2500 | 4000 | Loss on drying, Max | 1.0 | 1.5 | Reducing Sugar, Max | 1.0 | 1.25 |
|---------------------|---|--|--|-----------------|-------------|--|-------------|------------|-------------------|------|------|-------------|------|------|---------------------|-----|-----|---------------------|-----|------|
| Characteristics | Requirement | | | | | | | | | | | | | | | | | | | |
| | Light Brown | Dark Brown | | | | | | | | | | | | | | | | | | |
| Polarization, Min | 97.5 | 96.6 | | | | | | | | | | | | | | | | | | |
| Colour, Max | 2500 | 4000 | | | | | | | | | | | | | | | | | | |
| Loss on drying, Max | 1.0 | 1.5 | | | | | | | | | | | | | | | | | | |
| Reducing Sugar, Max | 1.0 | 1.25 | | | | | | | | | | | | | | | | | | |

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| | | | <table border="1"> <tr> <td>Conductivity Ash, Max</td> <td>0.35</td> <td>0.40</td> </tr> <tr> <td>Sulphur, (SO₂), Max</td> <td>20</td> <td>20</td> </tr> </table> <p>Further, committee decided that document to be circulated as a preliminary draft among the committee members for a period of 21 days and then for wide circulation for a period of two months. If comments received, to be placed before the committee.</p> | Conductivity Ash, Max | 0.35 | 0.40 | Sulphur, (SO ₂), Max | 20 | 20 |
| Conductivity Ash, Max | 0.35 | 0.40 | | | | | | | |
| Sulphur, (SO ₂), Max | 20 | 20 | | | | | | | |
| 9 | <p>Committee decided to constitute the panel to examine the presentation shared by Ramco Industry Limited and provide the recommendation to committee.</p> <p>a) Prof. Doctor Swain - NSI, Kanpur b) Shri Deep Malik - ISMA c) Shri Sachin Aggarwal – Shrijee Engineering d) Representative of National Federation of cooperative Sugar Factories Limited</p> | <p>Communication sent to experts along with the PPT received from M/s Ramco Industry Inputs are awaited.</p> | <p>Expert Panel after examination of representation received from M/s Ramco industry decided that due lack of specialized experts required for assessment of parameters such tensile strength of specialized product, material of construction and safety concern of material, unable to draw the scientific conclusion for use of material in construction of sugar gowdown as of now.</p> | | | | | | |
| 10 | <p>Item 5: comments on Indian standards: Committee decided to reconstitute the panel for revision of Indian Standard</p> <ol style="list-style-type: none"> 1. Dr. Vasudha Keskar (Convener) 2. Deep Malik- ISMA, New Delhi 3. Shri Rajesh Singh – Triveni Engineering & Industry 4. Shri V P Srivastava- NSI, Kanpur | <p>Draft document is under compilation and as discussed with convener. It will be placed before the committee on 23.09.2022.</p> | <p>The working draft of IS 15279 has been received from Dr. Vasudha Keskar (Convener) after compilation and re-written of all the requisite methods. The document will be send as preliminary draft among the committee members for 21 days and wide circulation for a period of two months.</p> | | | | | | |

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| | <p>5. Dr M Mandal- NSI, Kanpur Committee requested to Panel Convener to compile all the test methods from all the members within 15 days. Thereafter, preliminary draft to be circulated among the committee members for 21 days. If comments received to be incorporated into document. Further, document to be sent for wide circulation for a period of two months. If comments received, to be placed before the committee for deliberation.</p> | | <p>Comments received, if any to be placed before the committee in the next meeting.</p> |
| 11 | <p>Committee constituted the Panel for taking up the following subject after duly approved by FADC.</p> <p>a) Juice Screen b) Membrane Filters</p> <p>1. Shri Sanjay Chauhan – (Convener), NSI Kanpur 2. Shri Anurag Goel – ISGEC Heavy Industry Engineering, Noida 3. Shri Sachin Agrawal – Shrijee Process Engineering Works Ltd, Mumbai 4. Shri Deep Malik – Indian Sugar Mills Association, New Delhi 5. Representative from Suvicon Equipments Pvt. Ltd.</p> | <p>Panel could not meet during the period. Hence, No progress could be made in this case.</p> | <p>Committee opined that an early panel meeting to be convened. Further, progress made to be placed before the committee in the next meeting.</p> |
| 12 | <p>New Work Item Subjects: Jindal Stainless Steel has submitted the proposal for formulation of Indian Standards on following subject: 1. Pipes</p> | <p>Panel could not meet during the period. Hence, No progress could be made in this case.</p> | <p>To be discussed in future meeting</p> |

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| <p>for Corrosive Fluids in Sugar Industry. 2. Plates for Troughs and Chutes for Carriers. Tanks and Vessels used for Juice, Syrups and Molasses Committee decide to refer these subjects to panel meant for Juice Screen and Membrane Filters. Panel will examine the suitability and priority for taking up the subject. Recommendation of panel to be placed before the committee for final deliberation and recommendation to Food and Agriculture Division Council if any.</p> | | |
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ANNEURE IIB

SUGAR AD SUGAR INDUSTRIES SECTIONAL COMMITTEE, FAD 2

| Sl No. | Meeting Number | Date | Place |
|---------------|-----------------------|-----------------|------------------|
| i) | Sixteenth | 12 March 2021 | Virtual (Online) |
| ii) | Seventeenth | 25 January 2022 | Virtual (Online) |
| iii) | Eighteenth | 23 September | Hybrid Mode |

| Sl. No. | Organization Represented | Principal Member | Alternate Member | Attendance |
|----------------|---|---|-------------------------|-------------------|
| 1. | National Sugar Institute, Kanpur | Prof. Narendra Mohan – CHAIRMAN | - | 3/3 |
| | | Sh. Ashok Garg | - | 2/3 |
| 2. | Army Service Core (ASC), New Delhi | Lt. Col BB Sahu | - | 0/3 |
| 3. | CONCERT, Chennai | Shri R Santhanam | - | 2/3 |
| 4. | Consumer Guidance Society of India, Mumbai | Dr Sitaram Dixit | Dr M S Kamat | 2/3 |
| 5. | Food Safety Standards Authority of India, New Delhi | Ms Apoorva Srivastva (Technical Officer) | - | 0/3 |
| 6. | Global Cane Sugar Ltd, New Delhi | Dr G S C Rao | Shri Anil Srivastava | 0/3 |
| 7. | Indian Institute of Sugarcane Research, Lucknow | Dr A D Pathak | Dr A K Sharma | 2/3 |
| 8. | Indian Sugar Exim Corporation, New Delhi | Shri Rajiv Aggarwal | Shri Rajeev Kurup | 0/3 |
| 9. | Indian Sugar Mills Association, New Delhi | Shri G K Thakur | Shri Deep Malik | 3/3 |
| 10. | ISGEC Heavy Industry Engineering, Noida | Shri Sanjay Awasthi | Shri Anurag Goyal | 2/3 |
| 11. | Jindal Stainless Steel Ltd., Gurgaon | Shri Rajeev Gupta | Smt Nisha Goel | 2/3 |

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| 12. | Manas Industry, Pune | Shri Jeevan Vasant Jadhav | - | 0/3 |
| 13. | Ministry of Consumer Affairs, Food & Public Distribution, New Delhi | Shri Suresh Chandra | - | 2/3 |
| 14. | National Fed. Of Co-op. Sugar Factories Ltd., New Delhi | Shri Prakash P Naiknavare | Shri S Somasundaram | 2/3 |
| 15. | The Sugar Technologists Association of India, New Delhi | Shri Sanjay Awasthi | Shri Anurag Goyal | 2/3 |
| 16. | Shrijee Process Engineering Works Ltd, Mumbai | Shri Sachin Agarwal | Shri Sudeep Agarwal | 0/3 |
| 17. | Vasantdada Sugar Institute, Pune | Dr Rajeev Dani | Dr Sanjay V Dani | 1/3 |
| 18. | Tamil Nadu Sugar Corp. Ltd (TASCO), Chennai | Shri E Muthuvelappan | - | 0/3 |
| 19. | Triveni Engineering & Industries Ltd, Muzaffarnagar | Shri Rajesh Singh | Shri P K Khandelwal | 3/3 |
| 20. | Walchandnagar Industries | Shri D R Sardeshmukh | Shri P V Kawade | 0/3 |
| 21. | National Sugar Institute, Kanpur | S.K Trivedi | Vivek Pratap Singh | 1/1 |
| 22. | Central Food Technological Research Institute, Mysore | Dr Nandini C D | Dr Siva Sankara Reddy Singam | |
| 23. | Personal Capacity | Dr Sushil Solomon | | |

ATTENDANCE OF SUGAR INDUSTRY SECTIONAL COMMITTEE, FAD 02

CHAIRPERSON: Prof. Narendra Mohan, Director National Sugar Institute, Kanpur

Dated: 23-Sep-2022

Venue: NSI, Kanpur (Hybrid)

| Sl. No. | Organization Represented | Principal Member |
|----------------|--|---|
| 1. | National Sugar Institute, Kanpur | Prof. Narendra Mohan, (CHAIRPERSON) |
| 2. | CONCERT, Chennai | Shri M. Somasundaram |
| 3. | Indian Institute of Sugarcane Research, Lucknow | Dr. A. D. Pathak |
| 4. | Indian Institute of Toxicology Research, Lucknow | Dr. Yogeshwer Shukla |
| 5. | Indian Sugar Mills Association, New Delhi | Shri Deep Malik |
| 6. | National Fed. Of Co-op. Sugar Factories Ltd., New Delhi | Shri S. Somasundaram Shri Sanjay Agarwal |
| 7 | Directorate of Sugar, Ministry of Consumer Affairs, Food and Public distribution | Shri Aditya Sachan |
| 8 | MAARC LABS, Pune | Dr. Vasudha Keskar |
| 9 | Sugar Technology Association of India, New Delhi | Shri Amit Khatter |
| 10 | Triveni Engineering & Industries Ltd, Muzaffarnagar | Shri Rajesh Singh |
| 11 | National Sugar Institute, Kanpur | Vivek Pratap Singh |
| 12 | Bureau of Indian Standards | Shri Rajpal |