

**BUREAU OF INDIAN STANDARDS****MINUTES**

<b>Name of the Committee</b>	<b>No. of Meeting</b>	<b>Date</b>	<b>Time</b>	<b>Venue</b>
<b>Slaughter house and Meat Industry Sectional Committee, FAD 18</b>	<b>20<sup>th</sup></b>	<b>17 May 2024 (Friday)</b>	<b>10 30 h</b>	<b>Hybrid Mode Tamil Nadu Veterinary and Animal Sciences University, Chennai</b>

**CHAIRPERSON:****Dr. S B Barbuddhe**

Director,  
ICAR-National Meat Research Institute,  
Hyderabad

**MEMBER SECRETARY:****Debasish Mahalik**

Scientist-C / Deputy Director  
Food & Agriculture Department,  
Bureau of Indian Standards, New Delhi

**ATTENDANCE SHEET – Please see Annex A (Page 11)****ITEM 0 GENERAL****0.1 Welcome**

Shri Debasish Mahalik, Scientist-C/ Deputy Director, Food and Agriculture Department welcomed the Chairperson and members of FAD 18 to the 20<sup>th</sup> meeting of the committee. Shri Mahalik apprised the committee members regarding the various issues under consideration of the committee. Further, Shri Mahalik highlighted three critical aspects that will drive the work of this committee in the year 2024-25 such as; research approach for Standard Formulation, active participation of committee members in national as well as international standardization work; responsibility of the committee includes awareness, availability and accessibility of developed standards to concerned stakeholders. At last, requesting for support from the committee, Shri Mahalik lauded the work done by the various members and urged for fruitful and conclusive deliberation on the issues raised in the agenda.

## 0.2 Opening Remarks by the Chairman

Dr. S. B. Barbuddhe, Director, ICAR-National Meat Research Institute, Hyderabad and Chairperson, Slaughter house and Meat Industry Sectional Committee, FAD 18 in his opening remark extended a warm welcome to all the members to the 20th meeting of the Committee. He appreciated the contribution of the members under FAD 18 and requested to all the members of FAD 18 to provide their inputs, thoughts and suggestions in different new subject area which play a significant role in future. He highlighted the importance of the R & D initiative by Bureau of Indian Standards in shaping the standardization work of the committee.

Dr. Barbuddhe further informed the committee regarding the agenda of Viksit Bharat 2047 and importance of meat sector in it. He also stressed upon the concern of residues in meat and meat products and how it is the responsibility of the committee to develop need-based standards to address such issues. Lastly, he advised the committee members to actively participate in all the sectional committee meetings and panel meetings so that the pending work can be expedited.

## ITEM 1 CONFIRMATION OF THE MINUTES OF THE NINETEENTH MEETING

The committee noted that the minutes of the 19th meeting of Slaughter house and Meat Industry Sectional Committee, FAD 18 held on 14 March 2024 through Hybrid mode at Bureau of Indian Standards, New Delhi were circulated vide standards portal dated 20 March 2024. As, no comments were received, the committee approved the minutes of 19<sup>th</sup> meeting without any further modification.

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

### 2.1 SCOPE & ACTIVITIES OF THE COMMITTEE

**2.1.1** The committee noted the updated scope of FAD 18 mentioned under **2.1.1** and after due deliberation, the committee decided currently no more modification is required in the scope.

**2.1.2** The committee noted the Program of Work (POW) of Slaughter house and Meat Industry Sectional Committee, FAD 18 enclosed at **Annex 1** of the agenda.

### 2.2 COMPOSITION OF THE COMMITTEE

**2.2.1** The committee noted the information provided under 2.2.1 and requested Dr. S K Dutta, Animal Welfare Board to facilitate the nomination from Dr. Kaushik, department of Animal Husbandry and Dairying, Ministry of Animal Husbandry, Dairying and Fisheries within a period of 60 days.

**2.2.2** The committee noted the composition of the committee enclosed at Annex 2 of the agenda.

**2.2.3** The committee noted the composition of the existing panel along with the status of work allocated as provided under 2.2.3 of the agenda. Further, committee requested the Action Taken Report (ATR) from the convenor of the working group in order to decide the future course of action. The Action Taken Report (ATR) of the working groups are as follows:

<i>Working groups of FAD 18</i>	<i>Action Taken Report (ATR)</i>
FAD 18/ WG I Working group on Slaughter House Management System	See 4.4 (b)
FAD 18/ WG II Working group on Poultry Slaughterhouse Design and Operation	Dr. M Mutthukumar, ICAR-NMRI, Hyderabad informed the committee that, the identification of the concerned experts for the working group has been completed and the meeting will be conducted soon.  The committee then requested the Convenor to conduct the meeting of the working group on priority.

### ITEM 3 ANNUAL ACTION PLAN AND ANNUAL MEETING CALNDER

**3.1** The committee noted the current status of the progress in Annual Action Plan for the year 2024-25 as enclosed at *Annex 3* of the agenda.

**3.2** The committee noted the Annual Meeting Callender for the year 2024-25 as approved by the committee in its 19<sup>th</sup> meeting and modified the Annual Meeting Callender as follows:

<b>Year 2024-2025</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
<b>Schedule</b>	May 2024	August 2024	December 2024	February 2025
<b>Venue</b>	Tamil Nadu Veterinary and Animal Sciences University, Chennai	ICAR-National Research Centre on Mithun, Nagaland	CSIR - Central Food Technological Research Institute, Mysore	ICAR - Indian Veterinary Research Institute, Izatnagar

The committee further decided that exact dates for the meeting will be decided after due deliberation with Host organizations and then requested the host organizations to provide the tentative date for holding the meeting prior to 31<sup>st</sup> June 2024 for uploading on BIS Standardization Portal.

### ITEM 4 NEW STANDARDS FOR STANDARDISATION

**4.1 Doc. No. FAD 18 (23955) P ‘Rotary Animal Restrainer – Specification’**

The committee noted the information provided under 4.1 of the agenda. Further, Dr. S Ezhilvelan, Tamil Nadu Veterinary and Animal Sciences University, Chennai demonstrated the operation of the Rotary Animal Restrainer through video presentation and accordingly inputs were sought from experts on inclusion of stunning operation in the draft standard.

Considering the inputs received from experts during the meeting, after due deliberation the committee decided to incorporate the following modifications in the above draft standard:

- a) Stunning requirement is an operational requirement and therefore shall not be included in the above standard as it provides the requirements of the equipment.
- b) The above standard will provide the required justifications in its foreword regarding the reason behind non-inclusion of stunning in the above document.
- c) Requirements for stunning shall be mentioned in the code of practice standards related to slaughtering operations as applicable.
- d) The FAD 18/Panel IV to review the above draft standard considering the above recommendations and submit the final draft to Member Secretary, FAD 18 within a period of 30 days. Upon receipt of the draft standard, the draft will be sent into wide circulation for a period of 60 days seeking comments.

**4.2 Doc. No. FAD 18 (24818) WC Terminology of Meat Products and Meat Animals (Part 2) : Other Than Poultry**

The committee noted the information provided under 4.2 of the agenda and requested the committee members to provide their comments/inputs on the above wide circulation draft.

**4.3 Doc. No. FAD 18 (25007) P ‘Requirements for Transportation of Food Animal Carcasses from Abattoirs to Processing Distribution Centers–Code of Practice’**

The committee noted the information provided under 4.3 of the agenda. Further, the committee noted that no comments on the draft standard has been received during the circulation period which ended on 1 April 2024. Considering the above, the committee decided to send the above draft standard (*enclosed at Annex 5 of the agenda*) into wide circulation for a period of 60 days seeking comments.

The committee further decided that, in case no comments are received during wide circulation stage, the above draft will be sent into publication after due approval of the committee. However, if any comments are received during wide circulation stage, then the comments will be deliberated upon by FAD 18/Panel I : Code of Practices related to Slaughter House and Meat Industry.

**4.4 New subjects for standardization identified in seminar held at ICAR-NRC on Pig, Guwahati on 5 October 2023**

The committee noted the information provided under 4.4 of the agenda and the following decision were taken:

<i>Sl. No.</i>	<i>Subjects recommended in the seminar</i>	<i>Status as per 19<sup>th</sup> meeting</i>	<i>Decision taken in 20<sup>th</sup> Meeting</i>
a)	Specification for Stunning Box for Pigs	See 4.1.	See 4.1.
b)	Slaughterhouse Management System	The meeting status and draft standard is awaited.	<p>Dr. Narendra Babu, Tamil Nadu Veterinary and Animal Sciences University, Chennai informed the committee that, the 1<sup>st</sup> meeting of FAD 18/ WG I ‘Working group on Slaughter House Management System’ and deliberations taken place.</p> <p>Further, the committee requested Dr. Babu to develop the draft standard on priority and took the following decisions:</p> <ul style="list-style-type: none"> <li>a) The draft standard on Slaughterhouse Management System should be an implementable and certifiable standard.</li> <li>b) The standard should consider the quality management system and food safety management requirements.</li> </ul>
c)	Small or Micro Slaughterhouses specifications	The proposals for ToR on the subject has been received and currently under review by Research Evaluation Committee (REC).	The committee noted the information provided.
d)	Traceability of meat products	The proposals for ToR on the subject has been received and currently under review by Research Evaluation Committee (REC).	The committee noted the information provided.
e)	Guidelines for waste management of slaughterhouses	The draft standard on Guidelines for waste management of slaughterhouses ( <i>enclosed at Annex 6 of the agenda</i> ) finalized by FAD 18/Panel VI has been circulated as a	<p>The committee noted the information provided and decided that committee will decide in the next meeting whether the draft will be sent into Wide circulation or not.</p> <p>Moreover, in order to receive technical inputs on the draft, the committee directed Dr. M. Muthukumar, National Research</p>

		preliminary draft (P-Draft) for a period of 21 days on 27 April 2024 as Doc No. FAD 18 (25462) P 'Slaughterhouse Waste Management – Code of Practice'.	Center on Meat, Hyderabad and Dr. Vasudevan V. N. Kerala Veterinary and Animal Sciences University, Thrissur to provide their inputs pertaining to above draft within a period of 60 days.
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## ITEM 5 REVIEW OF INDIAN STANDARDS

5.1 The committee noted the information provided under 5.1 of the agenda and took decisions against the following Indian Standards that are due for review for year 2024 - 2025 as per the criteria mentioned under 5.1 of the agenda:

SI No.	IS Number	IS Title	Decision taken
a)	IS 12190 : 1987 Reviewed In : 2020	Specification for sheep bleeding shackles	The Standard may be reaffirmed while simultaneously taking up for revision.
b)	IS 13401 : 1992 Reviewed In : 2020	Meat and meat products determination of thiobarbituric acid value in meat - Test method	The Standard may be reaffirmed while simultaneously taking up for revision.
c)	IS 1723 : 1973 Reviewed In : 2020	Specification for pork ( <i>first revision</i> )	The revised version has been published in August 2023.
d)	IS 1982 : 2015 Reviewed In : 2020	Ante - Mortem and Post - Mortem inspection of meat animals - Code of practice ( <i>second revision</i> )	The Standard may be reaffirmed while simultaneously taking up for revision.
e)	IS 5558 : 1970 Reviewed In : 2020	Specification for chicken essence	The Standard may be reaffirmed while simultaneously taking up for revision.
f)	IS 5960 (Part 10) : 2001ISO 2917 Reviewed In : 2020	Meat and meat products - Methods of test: Part 10 measurement of pH - Reference method ( <i>first revision</i> )	The Standard may be reaffirmed in the present form as the concerned ISO standard is not yet revised.
g)	IS 5960 (Part 11) : 2013 Reviewed In : 2020	Meat and meat products - Methods of test: Part 11 determination of glucono - Delta - Lactone content ( <i>first revision</i> )	The Standard may be reaffirmed while simultaneously taking up for revision.
h)	IS 5960 (Part 13) : 1988/ ISO 5553 Reviewed In : 2020	Meat and meat products - Methods of test: Part 13 detection of polyphosphates	The Standard may be reaffirmed while simultaneously taking up for revision.
i)	IS 5960 (Part 14) : 1988/ ISO 5554 Reviewed In : 2022	Methods of test for meat and meat products: Part 14 determination of starch content	The Standard may be reaffirmed in the present form as the concerned ISO standard is not yet revised.
j)	IS 5960 (Part 15) : 2000/ ISO 3496 Reviewed In : 2020	Meat and meat products - Methods of test: Part 15 determination of l ( - ) hydroxyproline content ( <i>first revision</i> )	

<b>k)</b>	IS 5960 (Part 17) : 2004/ ISO 13965 Reviewed In : 2020	Meat and meat products - Methods of test: Part 17 determination of starch and glucose content - Enzymatic method	
<b>l)</b>	IS 5960 (Part 2) : 2000/ ISO 936 Reviewed In : 2020	Meat and meat products - Methods of test: Part 2 determination of total ash ( <i>first revision</i> )	
<b>m)</b>	IS 5960 (Part 4) : 1997/ ISO 1444 Reviewed In : 2023	Meat and meat products - Methods of test: Part 4 determination of - Free fat content ( <i>first revision</i> )	
<b>n)</b>	IS 5960 (Part 5) : 2001/ ISO 1442 Reviewed In : 2023	Meat and meat products - Methods of test: Part 5 determination of moisture content (Reference Method) ( <i>first revision</i> )	The Standard may be reaffirmed while simultaneously taking up for revision. Further, the committee decided to adopt ISO 1442 : 2023 as latest version of IS 5960 (Part 5).
<b>o)</b>	IS 5960 (Part 6/Sec 1) : 1997/ ISO 1841-1 Reviewed In : 2022	Meat and meat products - Methods of test: Part 6 determination of chloride content: Sec 1 volhard method ( <i>first revision</i> ) (ISO Title: Meat And Meat Products - Determination Of Chloride Content - Part 1 : Volhard Method)	The Standard may be reaffirmed in the present form as the concerned ISO standard is not yet revised.
<b>p)</b>	IS 5960 (Part 6/Sec 2) : 1997/ ISO 1841-2 Reviewed In : 2022	Meat and meat products - Methods of test: Part 6 determination of chloride content: Sec 2 potentiometric method ( <i>first revision</i> )	
<b>q)</b>	IS 5960 (Part 7) : 1996/ ISO 2918 Reviewed In : 2022	Meat and meat products - Methods of test: Part 7 determination of nitrite content ( <i>first revision</i> )	
<b>r)</b>	IS 5960 (Part 8) : 1996/ ISO 3091 Reviewed In : 2022	Meat and meat products - Methods of test: Part 8 determination of nitrate content ( <i>first revision</i> )	
<b>s)</b>	IS 6557 : 1972 Reviewed In : 2020	Specification for albumen flakes, non - Edible quality	The Standard may be reaffirmed and archived.
<b>t)</b>	IS 8895 : 2015 Reviewed In : 2020	Handling, Storage and Transport of Slaughterhouse By-Products — Guidelines ( <i>first revision</i> )	The Standard may be reaffirmed while simultaneously taking up for revision.
<b>u)</b>	IS 9810 : 1981 Reviewed In : 2020	Methods for evaluation of quality of chicken eggs	The Standard may be reaffirmed.
<b>v)</b>	IS 15937 : 2011/ ISO 13493:2011 Reviewed In : 2020	Meat and meat products - Determination of chloramphenicol content - Method using liquid chromatography	The Standard may be reaffirmed. Further, the committee decided to circulate ISO 13493: 2021 among committee members for a period of 60 days seeking comments regarding its adoption. Based on the inputs received, the committee will deliberate on adoption of ISO 13493: 2021 in its next meeting.

w)	IS 15938 : 2011/ ISO 13496:2000 Reviewed In : 2020	Meat and meat products - Detection of colouring agents - Method using thin - Layer chromatography	The Standard may be reaffirmed while simultaneously taking up for revision. Further, the committee decided to adopt ISO 13496 : 2021 as latest version of IS 15938.
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### 5.2 Doc. No. FAD 18 (24985) WC Draft Amendment to Animal casings - grades and specification (Second Revision) to (*Draft amendment to IS 1981: 2018*)

The committee noted the information provided under 5.2 of the agenda and noted that no comments have been received during the wide circulation period of the draft amendment (*enclosed at Annex 7 of the agenda*).

Considering the above, the committee after due deliberation decided to send the above draft amendment into publication.

### 5.3 Review of Pre- 2000 Indian Standards

The committee noted the following status of review of pre-2000 Indian Standards under FAD 18 and following decisions are taken:

<b>(a) Product Specification (Food products)</b>			
<b>Sl. No.</b>	<b>IS</b>	<b>Status as of 19<sup>th</sup> meeting</b>	<b>Decision taken in 20<sup>th</sup> meeting</b>
1.	IS 5558 : 1970 Specification for chicken essence	The draft revision of IS 5558 : 1970 has been received from FAD 18/panel III is enclosed at <b>Annex 8</b> of the agenda for consideration of the committee.  The committee may consider sending the draft into wide circulation for a period of 60 days seeking comments.	The committee deliberated upon the draft revision received from FAD 18/Panel III and decided to circulate the draft among committee member for a period of 60 days seeking comments. Further, the committee decided to deliberate on the further action in its next meeting based on the comments received.
<b>(b) Food Equipment Specifications</b>			
<b>Sl. No.</b>	<b>IS</b>	<b>Title</b>	
1.	IS 12190 : 1987 Specification for sheep bleeding shackles	As, no comments has been received during the circulation period, the committee may consider sending the draft revision (enclosed at <b>Annex 9</b> of the agenda) into publication.	The committee noted the information provided under the agenda and noted that no comments has been received during the wide circulation period of the draft revision ( <i>enclosed at Annex 9 of the agenda</i> ).  Considering the above, the committee after due deliberation decided to send



			the above draft revision into publication.
<b>(c) Method of Test</b>			
<b>Sl. No.</b>	<b>IS</b>	<b>Title</b>	
1.	IS 5960 (Part 13) : 1988 ISO 5553 Meat and meat products - Methods of test Part 13 detection of polyphosphates	As, no comments has been received during the circulation period, the committee may consider sending the draft revision ( <i>enclosed at Annex 10 of the agenda</i> ) into publication.	The committee noted the information provided under the agenda and noted that no comments has been received during the wide circulation period of the draft revision ( <i>enclosed at Annex 10 of the agenda</i> ).  Considering the above, the committee after due deliberation decided to send the above draft revision into publication.
2.	IS 13401 : 1992 Meat and meat products Determination of thiobarbituric acid value in meat - Test method	The draft revision is under preparation at BIS secretariate stage.	The committee noted the information provided and decided to allocate the standard to BIS officer for action research project as an action research project.

## ITEM 6 INTERNATIONAL ACTIVITIES

### 6.1 ISO Ballots under ISO/TC 34/SC 6

The committee noted the details of ISO ballots provided under 6.1 of the agenda and decided to approve the extension of the time limit of CIB: Project limit date extension request for ISO/WD 17644 and CIB: Project limit date extension request for ISO/WD 17647 under ISO/TC 34/SC 6.

## ITEM 7 MAPPING OF EQUIPMENT WITH INDIAN STANDARDS

The committee requested FAD 18/Panel IV: Panel on Equipment related Slaughter House and Meat Industry to analyze the Pre-standardization Report on Mapping of equipment with Indian Standards on priority (*enclosed at Annex 11 of the agenda*).

## ITEM 8 RESEARCH PROJECTS TO BE TAKEN UP FOR INCLUSION OF EMPIRICAL DATA AND INSIGHTS

### 8.1 Research project on 'Study on Shelf-Life assessment of Meat'

The committee was informed by Dr. B M Naveena, ICAR- NMRI, Hyderabad that the ToR for R & D project on ‘Study on Shelf-Life assessment of Meat’ is under development and will be submitted to the committee for evaluation within a period of 60 days.

Further, the committee decided to review the ToR upon receipt and finalize in its next meeting.

**8.2 Research project on ‘Validation study of various available methods on determination of thiobarbituric acid value in meat and meat products’**

The committee noted the information provided under 8.2 of the agenda. After due deliberation, the committee decided to take up the development of ToR for Research project on ‘Validation study of various available methods on determination of thiobarbituric acid value in meat and meat products’ only after the completion of Action research project on review of IS 13401 : 1992 ‘Meat and meat products Determination of thiobarbituric acid value in meat - Test method’.

**ITEM 9 ANY OTHER BUSINESS**

The committee after due deliberation identified that determination of meat content in meat product as a gap area for research and standardization. Further, the committee requested Dr. Vasudevan V. N., Kerala Veterinary and Animal Sciences University, Thrissur to develop ToR for R&D Project on Determination of Meat Content in Meat Product and submit the draft ToR within a period of 60 days for review by the committee.

**ITEM 10 TIME AND PLACE FOR THE NEXT MEETING**

The committee decided to hold its 21<sup>st</sup> meeting at ICAR-National Research Centre on Mithun, Nagaland in the month of August, 2024 as per approved Annual Meeting Clander for the year 2024-25. The detailed schedule of the meeting will be decided later in consultation with Chairperson, FAD 18 and Dr. Girish Patil S., Director, ICAR-NRC on Mithun, Nagaland.

**ANNEX A**  
**ATTENDANCE**

**Slaughter House and Meat Industry Sectional Committee, FAD 18**

Dated: 17-May-2024

Venue: TNVASU, Chennai

Sl. No.	Organization	Member Represented
1.	ICAR- National Meat Research Institute, Hyderabad	<b>Dr. S. B. Barbuddhe</b> (Chairperson)
2.	Association of Meat Scientists and Technologists (AMST), Chennai	Dr. V. Appa Rao
3.	CSIR- Central Food Technological Research Institute, Mysore	Dr. Tanaji Kudre
4.	National Research Center on Meat, Hyderabad	Dr. M. Muthukumar
5.	Kerala Veterinary and Animal Sciences University, Thrissur	Dr. Vasudevan V. N.
6.	Ministry of Food Processing Industries, Delhi	Dr. G. Srinivasan
7.	Municipal Corporation of Delhi, New Delhi	Dr. V. K. Singh
8.	Rajiv Gandhi Institute of Veterinary Education and Research (RIVER), Pondicherry	Dr. Prabhat K. Mandal
9.	Tamil Nadu Veterinary and Animal Sciences University, Chennai	Dr. R. Narendra Babu Dr. S. Ezhivelan
10.	Bureau of Indian Standards, New Delhi	Shri Debasish Mahalik, (Member secretary)
<b>Members join the Meeting on Virtual Mode</b>		
Sl. No.	Organization	Member Represented
1.	All India Meat and Livestock Exporters Association, Mumbai	Dr. N. Kondaiah
2.	Animal Welfare Board of India, Balabgarh, Haryana	Dr. Sujit Kumar Dutta
3.	CSIR- Central Leather Research Institute, Chennai	Dr. T. S. Uma
4.	Confederation of Indian Food & Trade Industry & Industry, New Delhi	Shri Kannan B.
5.	Deonar Slaughterhouse, Mumbai	Dr. Kalimpasha Ahmedkhan Pathan
6.	Food Safety and Standards Authority of India, New Delhi	Ms. Geetika Ms. Nidhi S. Lakra
7.	Greater Hyderabad Municipal Corporation, Hyderabad	Dr. Abdul Wakil
8.	Indian Meat Science Association, Hyderabad	Dr. Rajiv Ranjan Kumar
9.	Indian Poultry Science Association, Izatnagar	Dr. Jaydeep Rokade
10.	Indian Veterinary Research Institute, Izatnagar	Dr. A. R. Sen
11.	Kerala Veterinary and Animal Sciences University, Thrissur	Ms. Renuka Nayar
12.	National Research Center on Meat, Hyderabad	Dr. B M Naveena
13.	National Research Centre for Pig, Guwahati	Dr. R. Thomas
14.	People for Ethical Treatment of Animals, Mumbai	Dr. Kiran Ahuja
15.	Voluntary Organization in Interest of Consumer Education (VOICE), New Delhi	Dr. H. Wadhwa