



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

Speed Post

No. IPC-IV/Slaughter House/Complaints/2017

January 09, 2018

To:

The Member Secretary (All SPCBs/ PCCs),  
(List Enclosed)

**Sub:** Compliance Status of Slaughter Houses operating in the State/ Union Territory.

Sir,

As you are aware that :

1. CPCB has issued directions under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act 1974 vide letter dated July 12, 2012 to the SPCBs/ PCCs to submit six-monthly status reports to CPCB indicating no. of slaughter houses in operation with status of ETP and consent status action taken against the defaulting units.
2. Further, Hon'ble Supreme Court vide order dated 23.8.2012 directed CPCB to initiate action against all slaughter houses which are not meeting norms and implementing the abattoir rules through State Pollution Control Board.
3. CPCB vide letters dated November 3, 2015 and June 24, 2016 again requested SPCBs/ PCCs to provide detailed compliance status of slaughter houses, action taken against defaulting units and status report of State Level Committee constituted in compliance of the Hon'ble Supreme Court in the case of Shri Laxmi Narayan Modi Vs Union of India to check overall working and compliance of Slaughter Houses.
4. In this context, a number of reminders are issued from time to time by MoEFCC to SPCBs / PCCs. 'Compendium of Indian Standards on Slaughter Houses' has also been prepared by MoEFCC and circulated among all the Regulating Agencies including SPCBs / PCCs.
5. Copies of the letters issued by CPCB as referred above and ' Compendium of Indian Standards on Slaughter House' are available on the website of CPCB at the web-link <http://www.cpcb.nic.in/legal.php> for information and compliance by the concerned stake-holders.

The desired information is still awaited from SPCB inspite of lapse of considerable time. Meanwhile, several complaints are also received regarding pollution created by slaughter houses and requests are made for compliance of the Orders issued by Hon'ble Supreme Court on 23.8.2012.

Contd..2/-

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032  
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

Being Hon`ble Supreme Court matter, it is again requested to send the updated information as follows:

- (a) Details of consented/illegal status of slaughter houses / meat processing plants / Rendering Plants, including ETP details, consent status, no. of animals slaughtered per day (six monthly status report).
- (b) Details of meetings held by State Level Committees formed as per direction of Hon`ble Supreme court since its inception.
- (c) Action taken against defaulters /illegal slaughter houses.
- (d) Any action plan prepared for streamlining the sector by SPCBs/ State Animal Welfare Board.

An early action in the matter is requested. The updated status may please be provided before January 15, 2018 by e-mail to [nkgupta.cpcb@nic.in](mailto:nkgupta.cpcb@nic.in) / [ankush.cpcb@nic.in](mailto:ankush.cpcb@nic.in)

Yours faithfully



**[N.K. Gupta]**  
**Divisional Head – IPC-IV**

*o/c*

To:

1. **Member Secretary**  
**Andhra Pradesh Pollution Control Board**  
Paryavaran Bhawan,A-III  
Institutional Estate,Sanathnagar  
Hyderabad – 500018.
2. **Member Secretary**  
**Arunachal Pradesh Pollution Control Board**  
Department of Environment & Forests Office Complex, P-Sector,  
Itanagar - 791111.
3. **Member Secretary**  
**Assam Pollution Control Board**  
Bamunimaiden,  
Guwahati – 781 021
4. **Member Secretary**  
**Bihar Pollution Control Board**  
Beltron Bhawan, IInd floor  
Jawahar Lal Nehru Marg  
Shastri Nagar, Patna – 800 023
5. **Member Secretary**  
**Chhattisgarh Environment Conservation Board**  
H.No.1, Tilak Nagar, Shiv Mandir Chowk,  
Main Road, Avanti Vihar,  
Raipur, Chhattisgarh – 492001
6. **Member Secretary**  
**Goa Pollution Control Board**  
Dempo Tower, 1st Floor,  
EDC Patto Plaza,  
Panaji, Goa - 403 001.
7. **Member Secretary**  
**Gujarat Pollution Control Board**  
Paryavaran Bhawan, Sector 10-A,  
Gandhi Nagar – 382010
8. **Member Secretary**  
**Haryana Pollution Control Board**  
C-11, Sector-6  
Panchkula  
Haryana-134 109
9. **Member Secretary**  
**Himachal Pradesh Pollution Control Board**  
Paryavaran Bhawan, Phase-III, Below BCS,  
New Simla – 171 009.

10. **Member Secretary**  
**J&K State Pollution Control Board,**  
Parivesh Bhawan,  
Forest Complex, Gladni, Narwal,  
Transport Nagar, Jammu (J&K)
11. **Member Secretary**  
**Jharkhand State Pollution Control Board**  
T.A. Building, HEC, P.O. Dhurwa,  
Ranchi-834 004
12. **Member Secretary**  
**Karnataka State Pollution Control Board,**  
Parisara Bhavana, 1<sup>st</sup> to 5<sup>th</sup> Floor  
49, Church Street,  
Bengaluru – 560 001, Karnataka.
13. **Member Secretary**  
**Kerala Pollution Control Board**  
Plamoodu Junction, Pattom Palace, P.O.  
Thiruvananthapuram – 695 004
14. **Member Secretary**  
**Maharashtra Pollution Control Board**  
Kalptaru Point, 2<sup>nd</sup> - 4<sup>th</sup> floor,  
Opp. Cine Planet, Sion Circle, Sion (E),  
Mumbai – 400 022
15. **Member Secretary**  
**Madhya Pradesh Pollution Control Board**  
Paryavaran Parisar, Sector E-5,  
Arera Colony, Bhopal – 462 016
16. **Member Secretary**  
**Manipur Pollution Control Board**  
Near Imphal West D.C. Office Complex,  
Lamphelpat, Imphal – 795 004.
17. **Member Secretary**  
**Meghalaya Pollution Control Board**  
Arden, Lumpynggad,  
Shillong – 793 014
18. **Member Secretary**  
**Mizoram Pollution Control Board**  
Silver House, Tuikhuahtlang,  
Aizwal - 796001.
19. **Member Secretary**  
**Nagaland Pollution Control Board Signal Point,**  
Dimapur, Nagaland - 797112.
20. **Member Secretary**  
**State Pollution Control Board, Odisha**  
(Department of Forest & Environment)  
Paribesh Bhawan, A-118, Nilakantha Nagar, Unit-VIII,  
Bhubaneswar – 751 012.

21. **Member Secretary**  
**Punjab Pollution Control Board**  
Vatavaran Bhawan, Nabha Road  
Patiala – 147 001
22. **Member Secretary**  
**Rajasthan Pollution Control Board**  
A-4, Jalane Dungri Institutional Area  
Jaipur – 302 004
23. **Member Secretary**  
**State Pollution Control Board - Sikkim**  
Department of Forests Env. & W/L Management  
Government of Sikkim, Forests Secretariat,  
Annex – I Building,  
Deorali - 737102.
24. **Member Secretary**  
**Tamil Nadu Pollution Control Board**  
No. 76, Anna Salai  
Guindy, Chennai – 600 032
25. **Member Secretary,**  
**Telangana State Pollution Control Board,**  
A-3, Industrial Estate, Sanath Nagar, Hyderabad
26. **Member Secretary**  
**Tripura Pollution Control Board,**  
Parivesh Bhawan, Pandit Nehru Complex,  
Gorkhabasti P.O. Kunjaban,  
Agartala (W) – 799 006, Tripura.
27. **Member Secretary**  
**Uttar Pradesh Pollution Control Board**  
IIIrd floor, PICUP Bhawan  
Vibhuti Khand, Gomti Nagar  
Lucknow – 226 020
28. **Member Secretary**  
**Uttarakhand Environment Protection &  
Pollution Control Board**  
29/290, Nemi Road, Dalanwala, Dehradun - 248001.
29. **Member Secretary**  
**West Bengal Pollution Control Board**  
No. 10A, Block - LA, Sector III,  
Bidhan Nagar, Kolkata - 700 091.
30. **Member Secretary**  
**Chandigarh Pollution Control Committee**  
Additional Town Hall Building  
(2nd Floor) Sector-17C  
Chandigarh – 160 017

- 31. Member Secretary**  
**Delhi Pollution Control Committee**  
4th & 5th Floor, ISBT Building, Kashmere Gate,  
Delhi – 110006
- 32. Member Secretary**  
**Daman, Diu & Dadra & Nagar Haveli**  
**Pollution Control Committee**  
Office of the Dy. Conservator of Forests  
Fort Area, Moti Daman,  
Daman – 396 220
- 33. Member Secretary**  
**Lakshadweep Pollution Control Committee,**  
Lakshadweep Administration, Dept. Of Sc.,  
Technology & Environment  
Kavarati-682 555
- 34. Member Secretary**  
**Andaman & Nicobar Pollution Control Committee**  
Van Sadan, Haddo P.O.  
Port Blair – 744 102
- 35. Member Secretary**  
**Puducherry Pollution Control Committee**  
IIIrd floor, Housing Board Complex, Anna Nagar,  
Puducherry – 600 005

**SPEED POST/REMINDER**

No. B-400/General/(SH)/PCI-III/2016-17/

Dated : 24.06.2016

To,

The Member Secretary  
SPCB's/PCC's as per list enclosed

**Sub: Modernization of slaughter houses and data submission**

Ref: 1. In the matter of WP (Civil) No. 330/2001, Common Cause Vs Union of India & Ors. and in W.P. (C) No. 309/2003, Laxmi Narayan Modi Vs UOI & Ors. (Disposed on 06.02.2015) pending before Hon'ble Supreme Court of India.  
2. CPCB letter No. B-400/General/ (SH)/PCI-III/2015-16/ 3933 dated 03.11.2015 & a reminder dated 29.04.2016

Sir,

This has reference to the earlier direction U/s 18 (1) (b) of Water(Prevention and Control of Pollution) Act, 1974 dated 12.07.2012 issued for compliance of orders of Hon'ble Supreme Court and subsequent reminders by CPCB and MoEF & CC related to non-submission of data on working of slaughter houses in the country.

Although, due to intervention of Hon'ble Supreme Court most of the SPCBs and PCCs have constituted State Level Committees for monitoring of slaughter houses with retired District Judge as the Convener for periodic review, but it has been observed that even after repeated reminders from CPCB and MoEF & CC (Animal welfare Division), most of the SPCBs/PCCs are still reluctant to share the desired information. In this regard MoEF & CC had written letter to States and UTs (SPCBs/Animal Welfare Divisions of States/UTs) on 08.02.2016, 02.03.2016, 17.03.2016, 18.08.2016, 04.04.2016 and conducted a review meeting on 18.03.2016 as follow up of WP No. 309 of 2003 and 330 of 2001 (Laxmi Narain Modi Vs Union of India and Common cause Vs union of India and others). The Hon'ble Supreme Court has imposed hefty fine on MoEF & CC for non-submission of data and next hearing is scheduled on 18<sup>th</sup> July, 2016.

Being court matter once again SPCBs/ PCCs are requested to share the updated data as below:-

- (c) Details of consented/ illegal status of slaughter houses, including ETP details, consent status, no. of animals slaughtered per day (six monthly status report).
- (f) Details of meetings held by State Level Committees-formed as per direction of Hon'ble Supreme court since its inception.
- (g) Action taken on defaulters / illegal slaughter houses.
- (h) Any action plan prepared for streamlining the sector by SPCBs/State Animal Welfare Board.

It is once again requested that the reply may be mailed to madhu1960@gmail.com.

Yours faithfully,

(M Madhusudan) Sc."E" PCI-III Division

दिनांक .....  
दिनांक .....  
दिनांक .....

27/06/16.

o/c

Speed Post

B-400/General/SH/PCI-III/2015-16

November 03, 2015

To

(Member Secretaries of all States)

**Sub: Modernization of Slaughter Houses in the country, creating infrastructure-reg.**

Sir.

The studies of National Meat and Poultry Processing Board (NMPPB) and investigations of Pollution Control Boards have reported that only a few Slaughter Houses are built on scientific lines and complying all pollution control norms in the country. In most of the States, abattoirs mostly under Local/Municipal Bodies are antiquated in technology, hygiene and management. It is imperative that Slaughter Houses have to adhere basic requirements as per established pollution control norms and also to follow Quality Adherence Practices (QAP). The intervention of Hon'ble Supreme Court and follow up actions of Central Pollution Control Board (CPCB) most of the State PCBs/PCCs have constituted State Level Committees for monitoring of Slaughter Houses with retired District Judge as the Convener, for periodic review. Central pollution Control board engaged Central Leather Research Institute, Chennai for a comprehensive study and based on the above, the standards are being reviewed and draft is being notified in the MOEF&CC web site inviting comments. The sector being important it is requested to provide following details:

- 1.0 Details of slaughter houses operating in the state with valid consent and its details including ETP, No of animals slaughtered per day etc. The updated status may be provided.
- 2.0 Six monthly status report on each slaughter houses based on the working of the State Level Committees formed as per direction of Hon'ble Supreme Court in the case of Sri Laxmi Narayan Modi Vs Union of India.
- 3.0 Details of illegal slaughter houses and action taken by SPCBs/PCCs on each cases.
- 4.0 Comments on draft standards notified for revision of Slaughter Houses and meat processing plants.(Home page, MOEF & CC)

The data available with CPCB is enclosed as annexure -1. It is requested that the updated details on each point is to be forwarded to this office within 20 days for further process please. The content may be e-mailed to [adaba.cpcb@nic.in](mailto:adaba.cpcb@nic.in) or [madhu1960@gmail.com](mailto:madhu1960@gmail.com) for ready reference in advance.

Yours faithfully



(A.B. Akolkar)  
Member Secretary

Encl: As above



137

ITEM NO.4

COURT NO.12

SECTION PIL

S U P R E M E C O U R T O F I N D I A  
RECORD OF PROCEEDINGS  
WRIT PETITION (CIVIL) NO(s). 309 OF 2003

LAXMI NARAIN MODI

Petitioner(s)

VERSUS

UNION OF INDIA & ORS.

Respondent(s)

(With appln(s) for directions, permission to file rejoinder affidavit, permission to file additional documents, permission to file additional affidavit, permission to file submissions and office report)

WITH W.P(C) NO. 330 of 2001

(With appln(s) for directions)

W.P(C) NO. 44 of 2004

(With appln(s) for directions, exemption from filing O.T.)

W.P(C) NO. 688 of 2007

(With appln(s) for stay)

Date: 23/08/2012 These matters were called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE K.S. RADHAKRISHNAN

HON'BLE MR. JUSTICE DIPAK MISRA

For Petitioner(s)

Mr. Pranab Kumar Mullick, Adv.

Ms. Purnima Bhat, Adv.

Mr. C.D. Singh, Adv.

For Respondent(s)

Mr. Sidharth Luthra, ASG

Mr. T.S. Doabia, Sr. Adv.

Ms. Sunita Sharma, Adv.

Ms. Kiran Bhardwaj, Adv.

Mr. D.S. Mahra, Adv.

Mr. S. Chopra, Adv.

Mr. Aditya Singhal, Adv.

Mr. Shiv Pandey, Adv.

Mr. Vikas Malhotra, Adv.

Mr. D.L. Chiddanand, Adv.

Mr. B.K. Prasad, Adv.

Mr. Wasim A. Qadri, Adv.

Mr. A. Deb Kumar, Adv.

Mrs. Sushma Suri, Adv.

Ms. Asha G. Nair, Adv.

Ms. Gunwant, Adv.

Mr. B.V. Balramdas, Adv.

Mr. Ranjit Kumar, Sr. Adv.

Mr. Pranab Kumar Mullick, Adv.

Ms. Soma Mullick, Adv.

Mr. Raj Panjwani, Sr. Adv.

Ms. Purnima Bhat, Adv.

Mr. Anil Grover, AAG, Punjab

Ms. Noopur Singhal, Adv.

Mr. Manjit Singh, AAG, Haryana  
Mr. Kamal Mohan Gupta, Adv.

Dr. Manish Singhvi, AAG, Rajasthan  
Mr. Irshad Ahmad, Adv.  
Mr. Anjani Kumar Dubey, Adv.

Mr. Pragyan P. Sharma, Adv.  
Mr. Rupesh Gupta, Adv.  
Ms. Mandakini Sharma, Adv.  
Mr. Gautam Dhamija, Adv.  
Mr. P.V. Yogeswaran, Adv.  
Mr. Surendra Kr. Maurya, Adv.

Mr. Gopal Singh, Adv.  
Mr. Manish Kumar, Adv.  
Mr. Chandan Kumar, Adv.

Mr. Abhijit Sengupta, Adv.  
Mr. B.P. Yadav, Adv.  
Mr. Faisal M., Adv.

Mr. Pragyan Sharma, Adv.  
Mr. Heshu Kayina, Adv.

Mr. Vikas Upadhyay, Adv.  
Mr. B.S. Banthia, Adv.

Mr. Pradeep Misra, Adv.  
Mr. Daleep Kumar Dhuani, Adv.  
Mr. Suraj Singh, Adv.

Ms. Aruna Mathur, Adv.  
Mr. Yusuf Khan, Adv.  
Ms. Movita, Adv.

Mr. Vikas Bansal, Adv.  
Ms. Vibha Datta Makhija, Adv.

Mr. Shibashish Misra, Adv.  
Mr. Ahbinandan Nanda, Adv.

Mr. Riku Sarma, Adv.  
Mr. Navnit Kumar, Adv.  
For M/s. Corporate Law Group

Mr. Ranjan Mukherjee, Adv.  
Mr. S. Bhowmick, Adv.  
Mr. S.C. Ghosh, Adv.

Ms. Hemantika Wahi, Adv.  
Ms. Nandani Gupta, Adv.

Mr. Vijay Panjwani, Adv.

Mr. Atul Jha, Adv.  
Mr. Sandeep Jha, Adv.  
Mr. Dharmendra Kumar Sinha, Adv.  
Mr. Rajesh Srivastava, Adv.

Mr. Gopal Prasad, Adv.

Mr. S.K. Singh, Adv.

Mr. Vivek Vishnoi, Adv.  
Mr. Gaurav Agarwal, Adv.  
Mr. M.R. Shamshad, Adv.

Mr. Anil Shrivastav, Adv.  
Mr. Rituraj Biswas, Adv.

Mr. Mukesh K. Giri, Adv.  
Mr. Dilip Kumar Sharma, Adv.

Mr. Shiv Prakash Pandey, Adv.  
Mr. Rajeev K. Dubey, Adv.  
Mr. G.V. Rao, Adv.

Mr. Sunil Fernandes, Adv.  
Ms. Vernika Tomar, Adv.  
Mr. Shashank K. Lal, Adv.

Mr. Nikhil Nayyar, Adv.  
Mr. T.V.S. Raghavendra Sreyas, Adv.  
Ms. Pritha Srikumar, Adv.

Mr. Shekhar Raj Sharma, Adv.  
Ms. Alka Sinha, Adv.  
Mr. Anuvrat Sharma, Adv.

Mr. P. Parmeswaran, Adv

Mr. Pradeep Misra, Adv

Mr. Tara Chandra Sharma, Adv

Mr. R. Ayyam Perumal, Adv

Mr. V.G. Pragasam, Adv

Mr. V.K. Verma, Adv

Mr. Anil Shrivastav, Adv

Mr. Nikhil Nayyar, Adv

Mr. P.V. Dinesh, Adv

Mr. Ashok K. Srivastava, Adv.

Mr. L.C. Agrawala, Adv.

Mr. Punit Dutt Tyagi, Adv.

Ms. Kamini Jaiswal, Adv.

Mr. Abhijat P. Medh, Adv.

Mr. Sanjay R. Hegde, Adv.

Mr. Arun K. Sinha, Adv.

Mr. Khwairakpam Nobin Singh, Adv.

Mr. T.V. Ratnam, Adv.

- Ms. Sumita Hazarika, Adv.
- Mr. Mohanprasad Meharia, Adv.
- Mr. Anil Srivasava, Adv.
- Mr. T.V. George, Adv.
- M/s. Arputham, Aruna & Co., Adv.
- Mr. Aruneshwar Gupta, Adv.
- Mr. K.R. Sasiprabhu, Adv.
- Mr. Rajesh Srivastava, Adv.
- Mrs. B. Sunita Rao, Adv.
- Mr. Naresh K. Sharma, Adv.
- Mr. Ajay Pal, Adv.
- Mrs. Manik Karanjawala, Adv.

UPON hearing counsel the Court made the following  
O R D E R

These writ petitions have been preferred in public interest seeking various directions to the State Governments as well as to the Union of India, Ministry of Environment and Forests, Animal Welfare Board of India and other statutory authorities to effectively implement the provisions of the Prevention of Cruelty to Animals (Establishment and Registration of Societies for Prevention of Cruelty to Animals) Rules, 2000 and also the provisions of Environment Protection Act, 1986, Schedule I, Entry 50 and also Solid Wastes (Management and Handling) Rules, 2000 etc. Further, direction is also sought to ensure that the animals meant for slaughter are not transported in violation of Transport of Animals Rule, 1978 and the Prevention of Cruelty to Animals (Transport on Foot) Rules, 2000. Further, prayers have also been made to ensure that the recognized slaughter houses are in conformity with the provisions of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2000 and also for other consequential reliefs. A detailed affidavit has been filed by the Central Pollution Control Board (for short CPCB) as early as in October, 2003 wherein they have categorically stated as follows:

The CPCB is of the view that the slaughter houses generate substantial quantities of effluents and solid wastes. These slaughter houses causes nuisance by way of foul smell due to improper handling. It is, therefore, necessary that these units should install pollution control devices so that they can comply with the prescribed standards. Further, it was stated that the existing slaughter houses need to modernize their operations with greater emphasis of utilization of waste to reduce environmental problems and to maintain hygienic conditions. It is also pointed out that most of the slaughter houses in the country are very old and operate without basic amenities such as proper flooring, water supply, ventilation etc., and there is no need to upgrade old slaughter houses on modern lines.

Therefore, the CPBC submitted that all the slaughter houses in the country should comply with the prescribed standards. The local municipal agencies and concerned police should ensure that

no illegal slaughtering takes place and also the units conform to the standards set by the State Pollution Control Boards and Pollution Control Committees.

This Court has passed various orders alerting the State Governments to properly implement the various provisions referred to hereinbefore but still no effective steps have been taken by various States either to constitute Committees or to see that the slaughter houses are functioning in accordance with the rules framed.

The matters have again come up for hearing today. Learned senior counsel appearing for the Ministry of Environment and Forest (MoEF) brought to our knowledge a decision taken by the MoEF under the Chairmanship of Secretary, Ministry of Environment and Forest on 26.04.2012. In the meeting, the CPCB has presented its status of 15 States whereas the Ministry of Labour gave a status of 20 States and the action plan was also discussed.

After examining the matter in depth by the Committee, they found the necessity of constituting State Committee for slaughter houses to fulfill the mandatory requirements under the various legislations dealing with the functioning of the slaughter houses in the country. The decision of the dated 26.04.2012 is extracted hereunder for easy reference:-

1. CPCB will write to all States informing about its guidelines for slaughter houses. [Action: CPCB]

2. CPCB will also initiate action against all slaughter houses which are not meeting the norms and implement the abattoir rules through SPCB. It was discussed that SPCB even has powers to close slaughter houses under these rules. [Action: CPCB]

3. States to be requested to constitute State Committee for Slaughter Houses as follows:

- i) Secretary of the Department of Urban Development of the State-Chairman.
- ii) Rep. Department of Health.
- iii) Rep. Department of Animal Husbandry.
- iv) Rep. Department of Labour.
- v) Food Safety Commissioner representing Central Food Safety and Standard Authority of India.
- vi) Rep. State Pollution Control Board.
- vii) Rep. State Animal Welfare Board.

CPCB

CPCB

- viii) Rep. of State Police
- ix) 2 prominent persons nominated by state government
- x) Such other officers and experts as the members may choose to co-opt.

4. Functions of the State Committee for Slaughter Houses constituted may be as following:

- i) to identify and prepare a list of all the Slaughter Houses (S.H.s) located within the local self Govt. (Municipal Corporations, Panchayats etc.)
- ii) to call for reports from the District Magistrate or the Dy. Commissioner and District Food Safety Inspector as the case may be on the condition/functioning of the S.H.'s and also on the compliance of the relevant applicable laws.
- iii) to recommend modernization of old slaughter houses (S.H.s) and to relocate S.H.s which are located within or in close proximity of a residential area.
- iv) to recommend appropriate measures for dealing with solid waste, water/air pollution and for preventing cruelty to the animals meant for slaughter.
- v) to carry out surprise & random inspections of S.H.s regularly and to issue directions for compliance of the recommendations that may be made by it.
- vi) to send bi-annual reports on the state S.H.s to the Central Committee and to refer issues that may require Central Committee recommendations or Central Govt. assistance.
- vii) to accord final approval for licensing of S.H.S to Local Self Govt.
- viii) to identify on an ongoing basis, the unlicensed slaughter houses in the region, and other unlicensed, unlawful establishments where animals are being slaughtered, on howsoever a small scale, and take the help of the District Magistrate and other law enforcement agencies to crack down on the same.
- viii) To check for child labour.

231-1

Learned counsel appearing for the petitioners also pointed out the necessity of including the Secretary, Local Self Government as well as the Secretary, Panchayat Raj also as Committee Members for effective implementation of the various legislations.

Further, it was also pointed out that even though the decision was taken by the MoEF on 26.04.2012 the same was forwarded to various State Governments only on 2.7.2012 and so far no effective steps have been taken by the State Governments to constitute the Committee and to take further follow up action. The functions to be discharged by such Committees have also been dealt with in the meeting held on 26.04.2012 for proper implementation. The early constitution of the committees is, therefore, highly necessary for proper and speedy implementation of the rules under the various enactments.

In such circumstances, we are inclined to give direction to all the State Governments and the Union Territories to constitute the State Committees for slaughter houses, as decided in the meeting held on 26.04.2012, including the Secretary, Local Self Government as well as Secretary, Panchayat Raj as Members of the Committee over and above the Members already mentioned.

Since the matter is pending in this Court for a number of years, we are inclined to give directions to the State Governments and the Union Territories to constitute the Committees within a period of one month and report compliance. Further, we also direct CPCB to write to all the State Governments informing about the guidelines for slaughter houses as well as to initiate action against all slaughter houses which are not meeting the norms and implement the abattoir rules through State Pollution Control Board (SPCB).

The CPCB will initiate steps within a period of two weeks from today. The CPCB is also directed to submit its report within a period of one month.

List the matters after six weeks on a non-miscellaneous day.

Imp.  
CPCB

| (NARENDRA PRASAD)

| | (RENUKA SADANA)

COURT MASTER

| | COURT MASTER

B-29016/03/PCI-III

Speed / Regd. Post

1162-4192

July 12, 2012

To,

The Chairmen  
of 20 SPCBs and 3 PCCs as per list attached)

Direction under Section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 in the matter of Write Petition (Civil) No 309 of 2003, Laxmi Narain Modi Vs. Union of India in the Supreme Court of India on issues relating to slaughter houses

WHEREAS, amongst others, under Section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Boards is to plan a comprehensive programme for prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof; and

WHEREAS, the slaughter houses generate substantial quantity of effluent, which needs to be properly treated before disposal; and

WHEREAS, the Central Pollution Control Board (CPCB) has been pursuing with the State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) to take appropriate action so that the slaughter houses meet prescribed norms; and

WHEREAS, information received from SPCBs/PCCs reveals that slaughter house(s) are yet to install proper effluent treatment facility and/or are yet to be covered under consent regime; and

WHEREAS, in the meeting held under the Chairmanship of Secretary, Ministry of Environment & Forests on April 26, 2012 in Paryavaran Bhawan, C.G.O. Complex, New Delhi, it was decided that CPCB would initiate action against all slaughter houses which are not meeting the norms and rules through SPCBs; and

NOW, THEREFORE, in view of the above and exercising the powers conferred under Section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974, the following directions are issued to ----- (name of SPCB/PCC) for compliance:

Contd..2/

केन्द्र

जा

118  
23/7/12



1. The State Board/Committee shall ensure that all slaughter houses operate with valid consent;
2. The State Board/Committee shall take appropriate action so that the slaughter houses provide effluent treatment facility to meet norms;
3. The State Board/Committee shall take action against defaulting slaughter houses; and
4. The State Board/Committee shall submit six-monthly status reports to CPCB indicating no. of slaughter houses in operation, no. of slaughter houses with effluent treatment facility, no. of slaughter houses with valid consent and actions taken against the defaulting slaughter houses.

*Mira*  
(Mira Mehrishi)  
Chairperson

Copy to:

The Director (CP Division)  
Govt. of India,  
Ministry of Environment & Forests,  
Paryavaran Bhawan, CGO Complex,  
Lodhi Road, New Delhi-110003

The Director (AW)  
Govt. of India,  
Ministry of Environment and Forests  
8<sup>th</sup> Floor, Jeevan Prakash Building,  
25, Kasturba Gandhi Marg,  
New Delhi - 110001

All the Incharges of the Zonal Office,  
Central Pollution Control Board

J/c ESS

J/c IT

*Mira*  
(Mira Mehrishi)  
Chairperson

J/c

## INDEX

<b>Sr. No</b>	<b>STATUTE/STANDARD/GUIDELINE</b>	<b>PAGE NO.</b>
1.	Prevention of Cruelty to Animals Act, 1960 [Relevant sections: Sections 3(p.3), 9(b) (p. 6), Section 9(e) (p. 6), 11 (p. 7, 8) and 38 (p. 15, 16)]	<b>1-18</b>
2.	Transport of Animals Rules, 1978(as amended in 2001 and 2009)	<b>19-36</b>
3.	Prevention of Cruelty to Animals (Transport of Animals on Foot ) Rules 2000	<b>37-42</b>
4.	Prevention of Cruelty to Animals (Slaughter House) Rules 2001	<b>43-48</b>
5.	Performa for Ante and Post Mortem Fitness Certificates to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4 (3) of the Prevention of Cruelty to Animals (Slaughter House) Rules 2001 [Relevant documents: Letter from AWBI to Director/Commissioner, Municipal Administration of all States and Union Territories, dated 17.10.2016(p. 49); Letter from AWBI to CEO Food Safety & Standards Authority, dated 17.10.2016(p. 50); Letter from FSSAI to All Central Licencing Authorities and Commissioners of food safety of all States /UT's (p.51)]	<b>49-54</b>
6.	Draft Prevention of Cruelty to Animals ( Regulation of livestock market ) Rules 2016	<b>55-66</b>
7.	Central Motor Vehicles (Eleventh Amendment) Rules, 2015 [Relevant Rules: Rule 125E(p. 69)]	<b>67-69</b>
8.	Central Motor Vehicles (13th Amendment) Rules, 2016 [Relevant Rules: Rule 125E(p.71)]	<b>70-71</b>
9.	Food Safety and Standards Act 2006 [Relevant sections- Section 92(p. 118,119)]	<b>72-123</b>
10.	Food Safety and Standards (Licensing and Registration of Food Business) Regulations 2011 [Relevant regulations- Part IV(p. 161-178)]	<b>124-184</b>
11.	Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 [Relevant regulations- Regulation 2.5(p.265)]	<b>185-343</b>
12.	Agriculture and Processed Food Product Export Development Authority (Amendment) Act 2009 [Relevant sections- Section 4(p. 344) and section 12(p. 349)]	<b>344-355</b>
13.	Environment Protection Act 1986 [Relevant Sections- 6 & 25(p.356)]	<b>356</b>
14.	The Environment (Protection) Rules, 1986 [Relevant Rules- Effluent Discharge Standards, S.No. 50(p.357)]	<b>357-358</b>
15.	(Revised Draft) Effluent discharge standards for Slaughter House to be notified by the MoEF [Relevant Rules- Effluent Discharge Standards, S.No. 50(p.360)]	<b>359-361</b>
16.	The Water (Preservation and Control of Pollution) Act, 1974 [Relevant Section 24(p. 373,374), 25(p. 374), 26(p. 375), 27(p. 375,376), 28(p. 376) &	<b>362-387</b>

	33B(p. 378)]	
17.	The Water (Preservation and control of pollution) Rules 1975 [Relevant Rules: Form XIII(p.410)]	<b>388-431</b>
18.	The Air (Prevention and Control of Pollution) Act 1981 [Relevant Sections- 21(p 441), 22A(p. 443), 23(p. 443), 24(p. 443, 444), 31A(p. 446), 31B(p. 446), 37(p.448), 40(p. 448,449), & 41 (p. 449)]	<b>432-453</b>
19.	The Municipal Solid Wastes (Management & Handling) Rules 2000 [Relevant Rules- 7(p. 456), Schedule II- S.No.1(iii)(p. 458), 4(p. 459), 5(p. 459,460), 6(p. 460), Form II Clause 6(ii)(p.472)]	<b>454-477</b>
21.	The National Green Tribunal Act 2010 [Relevant sections 14(p.482), 16(p.483)]	<b>478-493</b>
22.	IS 8895: 2015 Handling Storage and Transport of Slaughter house by-products Guidelines (first revision)	<b>494-500</b>
23	IS 1982 : 2015 Ante mortem and post mortem inspection of meat animals – Code of practice (second revision)	<b>501-515</b>
24	IS 4393 : 2016 Basic Requirement of an Abattoir (second revision)	<b>516-539</b>

S.No.	ACTS AND RULES APPLICABLE TO SLAUGHTER HOUSES	Page No.
<b>PRE-SLAUGHTER</b>		
1	<p style="text-align: center;"><b><u>Food Safety and Standards Act, 2006</u></b></p> <ul style="list-style-type: none"> <li>• Section 92: Power of the Food Safety Authority to make regulation with previous approval of the Central Government.</li> </ul> <p style="text-align: center;"><b><u>Food Safety and Standards (Licensing and Registration of Food Businesses) regulations, 2011</u></b></p> <ul style="list-style-type: none"> <li>• Part IV: Mandatory licensing provision and infrastructure requirement for slaughter houses. Pre-slaughter transport and handling of animals</li> </ul> <p style="text-align: center;"><b><u>Food Safety and Standards (Licensing and Registration of Food additives) Regulations, 2011</u></b></p> <ul style="list-style-type: none"> <li>• Specifies the species of animals that can be slaughtered for meat</li> </ul>	<p style="text-align: center;"><b>72-123</b></p> <p style="text-align: center;"><b>124-184</b></p> <p style="text-align: center;"><b>185-343</b></p>
2.	<p style="text-align: center;"><b><u>Prevention of Cruelty to Animals Act, 1960 (as amended in 1982)</u></b></p> <ul style="list-style-type: none"> <li>• Section 3- responsibility of a person to ensure the well-being of an animal in their charge</li> <li>• Section 11(1)- what amounts to animal cruelty</li> <li>• Section 38- Central Government has the power to frame rules under the Act. The rules made thereunder are</li> </ul> <p style="text-align: center;"><b><u>Transport of Animal Rules, 1978 (as amended in 2001 &amp; 2009)</u></b></p> <ul style="list-style-type: none"> <li>• Mandatory provisions on procedure to transport animals by rail, road or air. Defines the space required for each animal during transport and requires veterinary certificate for each animal.</li> </ul> <p style="text-align: center;"><b><u>Prevention of Cruelty to Animals (Transport of Animals on Foot ) Rules 2000</u></b></p> <ul style="list-style-type: none"> <li>• Mandatory provisions to be observed for animals being transported on foot, such as fitness to transport certificate, duration of travel, temperature, time and rest interval.</li> </ul> <p style="text-align: center;"><b><u>Prevention of Cruelty to Animals (Slaughter House) Rules 2001 (as amended in 2010)</u></b></p> <ul style="list-style-type: none"> <li>• Mandatory provisions to be observed for construction of lairage, ante-mortem procedure and welfare safeguards.</li> <li>• Performa ante-mortem and post-mortem fitness certificate to be issued by Veterinary doctor after examining the animal</li> </ul>	<p style="text-align: center;"><b>1 – 18</b></p> <p style="text-align: center;"><b>19-36</b></p> <p style="text-align: center;"><b>37-42</b></p> <p style="text-align: center;"><b>43-48</b></p> <p style="text-align: center;"><b>49-54</b></p>

	<p>before and after slaughter as per rule 4(3).</p> <p style="text-align: center;"><b><u>Draft Prevention of Cruelty to Animals ( Regulation of livestock market ) Rules 2016</u></b></p> <ul style="list-style-type: none"> <li>• Draft rules for regulation and management of livestock markets including identification, sale and purchase and loading and unloading animals from vehicles, infrastructure requirement at markets.</li> </ul>	55-56
3	<p style="text-align: center;"><b><u>Environment (Protection) Act, 1986</u></b></p> <ul style="list-style-type: none"> <li>• Central Government has the power to frame rules under Sections 6 &amp; 25 of the Act</li> </ul> <p style="text-align: center;"><b><u>Environment Protection (Amendment) Rules, 2015</u></b></p> <ul style="list-style-type: none"> <li>• Mandatory infrastructure requirements to ensure Effluent Discharge Standards for Slaughter House [Relevant Rules- Effluent Discharge Standards, S.No. 50(p.358)]</li> <li>• <i>(Revised Draft) Effluent Discharge Standards for Slaughter House to be notified by Ministry of Environment, Forests &amp; Climate Change</i> [Relevant Rules- Effluent Discharge Standards, S.No. 50(p.361)]</li> </ul>	356  357-358  359-361
4	<p style="text-align: center;"><b><u>Central Motor Vehicles (11<sup>th</sup> Amendment Rules) 2015</u></b></p> <ul style="list-style-type: none"> <li>• Special requirements for vehicles transporting livestock</li> </ul>	67-69
5	<p style="text-align: center;"><b><u>Central Motor Vehicles (13<sup>th</sup> Amendment Rules) 2016</u></b></p> <ul style="list-style-type: none"> <li>• Special requirements for vehicles transporting livestock with exception</li> </ul>	70-71
6	<p style="text-align: center;"><b><u>The Water (Prevention and Control of Pollution) Act, 1974</u></b></p> <ul style="list-style-type: none"> <li>• Regulates discharge of sewage and trade effluents in rivers, streams, wells and other water bodies</li> </ul>	363-388
7	<p style="text-align: center;"><b><u>The Water (Prevention and control of Pollution ) Rules , 1975</u></b></p> <ul style="list-style-type: none"> <li>• Application for consent for establishing or taking any Steps for establishment of Industry operation process or any treatment disposal system for discharge, continuation of discharge under section 25 or section 26 of the Water (Pollution and Control of Pollution) Act. 1974</li> </ul>	389-433
8	<p style="text-align: center;"><b><u>The Air (prevention and control of Pollution ) Act, 1981</u></b></p> <ul style="list-style-type: none"> <li>• Previous consent of State Pollution Board a prerequisite</li> </ul>	434-455

	<p>to establishing or operating certain industrial plants in air pollution control areas</p> <ul style="list-style-type: none"> <li>• Power of State Board to enter and inspect</li> <li>• Power of State Board to issue directions for closure prohibition or regulation of any industry, and to direct stoppage of electricity, water or other services to such industry</li> </ul>	
9	<p><b><u>The Municipal Solid Wastes (Management &amp; Handling Rules, 2000</u></b></p> <ul style="list-style-type: none"> <li>• Regulation of management of waste from slaughter houses and meat processing units</li> </ul>	454-477
<b>DURING SLAUGHTER</b>		
1	<p><b><u>Food Safety and Standards Act, 2006</u></b></p> <ul style="list-style-type: none"> <li>• Section 92: Power of the Food Safety Authority to make regulation with previous approval of the Central Government. (p.118,119)</li> </ul> <p><b><u>Food Safety and Standards (Licensing and Registration of Food Businesses) regulations, 2011</u></b></p> <ul style="list-style-type: none"> <li>• Part IV: Mandatory detailed, method of stunning for each specie, detailed post-mortem inspection, sanitary requirement for meat processing units, requirement for equipment, pest control, working personnel, training for working personnel, etc. (p.161-178)</li> </ul>	72-123  124-184
2	<p><b><u>Prevention of Cruelty to Animals Act, 1960 (as amended in 1982)</u></b></p> <ul style="list-style-type: none"> <li>• Section 11 – No infliction of unnecessary pain and suffering during the destruction of animal for food for mankind(p. 7, 8)</li> <li>• Section 28 – Method of slaughter may be prescribed by the religion of the community.</li> <li>• Section 38 – Central Government has the power to frame Rules under the Act. The rules made there under are (p. 15, 16)</li> </ul> <p><b><u>Prevention of Cruelty to Animals (Slaughter house ) Rules, 2001(as amended in 2010)</u></b></p>	1-18

	<ul style="list-style-type: none"> <li>• Provides for mandatory provisions for stunning and ensuring that animals are not slaughtered within the sight of other animals.</li> <li>• Performa Ante and Post Mortem Fitness Certificate to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4 (3) of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2001</li> </ul>	<b>43-48</b>
	<b>POST SLAUGHTER</b>	
1	<p style="text-align: center;"><b><u>Food Safety and Standards Act, 2006</u></b></p> <p>Section 92 – Power of the food Authority to make regulation with previous approval of the Central Government.</p> <p style="text-align: center;"><b><u>Food Safety and Standard (Licensing and Registration of Food Business)Regulations 2011</u></b></p> <ul style="list-style-type: none"> <li>• Part IV: Mandatory provision for processing packaging and refrigeration requirement to be followed by the food business operators(Slaughter Houses) and safeguards for prevention of cross contamination and spread of diseases.</li> </ul>	<p style="text-align: right;"><b>72-123</b></p> <p style="text-align: right;"><b>124-184</b></p>
2	<p style="text-align: center;"><b><u>Environment (Protection) Act, 1986</u></b></p> <ul style="list-style-type: none"> <li>• The Central Government has powers to frame rules under Section 6 and 25 of the Act.</li> </ul> <p style="text-align: center;"><b><u>Environment Protection(Amendment) Rules, 2015</u></b></p> <ul style="list-style-type: none"> <li>• Mandatory effluent discharge Standards for slaughter Houses which Slaughter house, meat and sea food industry shall follow for discharge of waste water.</li> <li>• <i>(Revised Draft) Effluent discharge standards for Slaughter House to be notified by Ministry of Environment Forest and Climate Change</i></li> </ul>	<p style="text-align: right;"><b>356</b></p> <p style="text-align: right;"><b>357-358</b></p> <p style="text-align: right;"><b>359-361</b></p>
3	<p style="text-align: center;"><b><u>Agricultural and Processed Food Products Export Development Authority (Amendment)Act, 2009</u></b></p> <ul style="list-style-type: none"> <li>• Section 12, under Chapter II mandates registration of every person exporting any Scheduled products as ‘exporter ‘with the Authority, which is the Agricultural and Processed food</li> </ul>	<b>344-355</b>

	Products Export Development Authority, established under Section 4 of the said Act	
4	<p style="text-align: center;"><b><u>The National Green Tribunal Act, 2010</u></b></p> <ul style="list-style-type: none"> <li>• Power of Tribunal to settle disputes arising from Environment Water, and Air Acts</li> </ul>	<b>478-493</b>
	<b>BIS STANDARDS FOR SLAUGHTER HOUSES (VOLUNTARY)</b>	
1	IS 8895: 2015 Handling Storage and Transport of Slaughter house by-products Guidelines (first revision)	<b>494-500</b>
2	IS 1982 : 2015 Ante mortem and post mortem inspection of meat animals – Code of practice (second revision)	<b>501-515</b>
3	IS 4393 : 2016 Basic Requirement of an Abattoir (second revision)	<b>516-539</b>



**THE PREVENTION OF  
CRUELTY TO ANIMALS ACT, 1960**  
(59 of 1960)

**As amended by Central Act 26 of 1982.**

**THE PREVENTION OF CRUELTY TO ANIMALS ACT, 1960**  
(59 OF 1960)

**As amended by Central Act 26 of 1982.**

**ARRANGEMENT OF SECTIONS**

Section No.

**CHAPTER I – PRELIMINARY**

1. Short title, extent and commencement.
2. Definitions.
3. Duties of persons having charge of animals.

**CHAPTER II - ANIMAL WELFARE BOARD OF INDIA**

4. Establishment of Animal Welfare Board of India.
5. Constitution of the Board.
  1. 5A. Reconstitution of the Board.
6. Term of office and conditions of service of Members of the Board,
7. Secretary and other employees of the Board.
8. Funds of the Board.
9. Functions of the 'Board.
10. Power of Board to make regulations.

**CHAPTER III-CRUELTY TO ANIMALS GENERALLY**

11. Treating animals cruelly.
12. Penalty for practising phooka or doom dev.
13. 'Destruction of suffering animals'.

**CHAPTER IV-EXPERIMENTATION OF ANIMALS**

14. Experiments on animals.
15. Committee for control and supervision of experiments on animals.
  1. 15A. Sub-Committee.
16. Staff of the Committee.
17. Duties of the Committee and power of the Committee to make rules relating to
  2. experiments on animals.
18. Power of entry and inspection.
19. Power to prohibit experiments on animals.
20. Penalties.

**CHAPTER V-PERFORMING ANIMALS**

21. "Exhibit" and "train" defined.
22. Restriction on exhibition and training of performing animals.
23. Procedure for registration.
24. Power of court to prohibit or restrict exhibition and training of performing animals.
25. Power to enter premises.
26. Offences.
27. Exemptions.

## CHAPTER VI-MISCELLANEOUS

28. Saving as respects manner of killing prescribed by religion.
29. Power of court to deprive person convicted of ownership of animal.
30. Presumptions as to guilt in certain cases.
31. Cognizability of offences.
32. Powers of search and seizure.
33. Search warrants.
34. General Power of seizure for examination.
35. Treatment and care of animals.
36. Limitation of prosecutions.
37. Delegation of powers.
38. Power to make rules.
  1. 38A. Rules and regulations to be laid before Parliament.
39. Persons authorised under section 34 to be public servants.
40. Indemnity.
41. Repeal of Act 11 of 1890.

## LIST OF ABBREVIATIONS USED

- Ins. Inserted  
S. Section  
Subs. Substituted.

**THE PREVENTION OF CRUELTY TO ANIMALS ACT, 1960**

**(59 OF 1960)**

(26th December, 1960)

AN ACT

To prevent the infliction of unnecessary pain or suffering on animals and for that purpose to amend the law relating to the prevention of cruelty to animals.

Be it enacted by Parliament in the Eleventh year of the Republic of India as follows:

**CHAPTER I**

**PRELIMINARY**

**1. Short title, extent and commencement :**

- (1) This Act may be called the Prevention of Cruelty to Animals Act, 1960.
- (2) It extends to the whole of India except the State of Jammu and Kashmir. ,
- (3) It shall come into force on such date as the Central Government may, by notification in the official Gazette, appoint, and different dates may be appointed for different States and for the different provisions contained in this Act.

**2. Definitions :** In this Act, unless the context otherwise requires,

- (a) "animal" means any living creature other than a human being,
- (b) "Board" means the Board established under Section 4. and as reconstituted from time to time under Section 5A]
- (c) "captive animal" means any animal (not being a domestic animal) which is in captivity or confinement, whether permanent or temporary, or which is subjected to any appliance or contrivance for the purpose of hindering or preventing its escape from captivity or confinement or which is maimed or which is or appears to be. maimed;
- (d) "domestic animal" means any animal which is tamed or which has been or is being sufficiently tamed to serve some purpose for the use of man or which, although it neither has been nor is intended to be so tamed, is or has become in fact wholly or partly tamed,-
- (e) "local authority" means a municipal committee, district board or other authority for the time being invested by law with the control and administration of any matters within a specified local area;
- (f) "owner", used with reference to an animal, includes not only the owner but also any other person for the time being in possession or custody of the animal, whether with or without the consent of the owner.
- (g) "phooka" or "doom dev" includes any process of introducing air or any substance into the female organ of a milch animal with the object of drawing off from the animal any secretion of milk;
- (h) "prescribed" means prescribed by Rules made under this Act;
- (i) "street" includes any way, road, lane, square, court, alley, passage or open space, whether a thoroughfare or not to which the public have access.

**3. Duties of persons having charge of animals :** It shall be the duty of every person having the care or charge of any animal to take all reasonable measures to ensure the well-being of such animal and to prevent the infliction upon such animal of unnecessary pain or suffering.

**CHAPTER II**  
2(ANIMAL WELFARE BOARD OF INDIA)

**4. Establishment of Animal Welfare Board of India :**

- (1) For the promotion of animal welfare generally and for the purpose of protecting animals from being subjected to unnecessary pain or suffering, in particular, there shall be established by the Central Government, as soon as may be after the commencement of this Act, a Board to be called the 3(Animal Board of India.)
- (2) The Board, shall be a body corporate having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and may by its name sue and be sued.

**5. Constitution of the Board :**

- (1) The Board shall consist of the following persons, namely:
- (a) the Inspector General of Forests, Government of India, ex-officio,
  - (b) the Animal Husbandry Commissioner to the Government of India, ex-officio;
- 4(ba) two persons to represent respectively the Ministries of the Central Government dealing with Home Affairs and Education, to be appointed by the Central Government;
- (bb) one person to represent the Indian Board for Wild Life, to be appointed by the Central Government;
- (bc) three persons who, in the opinion of the Central Government, are or have been actively engaged in animal welfare work and are well-known humanitarians, to be nominated by the Central Government;
- (c) one person to represent such association of veterinary practitioners as in the opinion of the Central Government ought to be represented on the Board, to be elected by that association in the prescribed manner;
- (d) two persons to represent practitioners of modern and indigenous systems of medicine, to be nominated by the Central Government;
- 5[(e) one person to represent each of such two municipal corporations as in the opinion of the Central Government ought to be represented on the Board, to be elected by each of the said corporations in the prescribed manner
- (f) one person to represent each of such three organisations actively interested in animal welfare as in the opinion of the Central Government ought to be represented on the Board, to be chosen by each of the said organisations in the prescribed manner;
- (g) one person to represent each of such three societies dealing with prevention of cruelty to animal as in the opinion of the Central Government ought to be represented on the Board, to be chosen, in the prescribed manner;
- (h) three persons to be nominated by the Central Government,
- (i) six Members of Parliament, four to be elected by the House of the People (Lok Sabha) and two by the Council of States (Rajya Sabha).
- (2) Any of the persons referred to in clause 9a) or 6[clause (b) or clause (ba) or clause (bb) of sub-section (1) may depute any other person to attend any of the meetings of the Board.
- 7[(3) The Central Government shall nominate one of the members of the Board to be its Chairman and another member of the Board to be its Vice-Chairman.)
- 5A. Reconstitution of the Board :** 8[5.A (1) In order that the Chairman and other members of the Board hold office till the same date and that their terms of office come to an end on the same date, the Central Government may, by notification in the Official Gazette, reconstitute, as soon as may be after the Prevention of Cruelty to Animals (Amendment) Act, 1982 comes into force, the Board.

- (2) The Board as reconstituted under sub-section (1) shall be reconstituted from time to time on the expiration of every third year, from the date of its reconstitution under sub-section (1).
- (3) There shall be included amongst the members of the Board reconstituted under sub-section (1), all persons who immediately before the date on which such reconstitution is to take effect, are Members of the Board but such persons shall hold office only for the unexpired portion of the term for which they would have held office if such reconstitution had not been made and the vacancies arising as a result of their ceasing to be Members of the Board shall be filled up as casual vacancies for the remaining period of the term of the Board as so reconstituted:

Provided that nothing in this sub-section shall apply in relation to any person who ceases to be member of the Board by virtue of the amendment made in sub-section (1) of section 5 by sub-clause (ii) of clause (a) of section 5 of the Prevention of Cruelty to Animals (Amendment) Act, 1982).

- 96. Term of office and conditions of service of Members of the Board :** (1) The term for which the Board may be reconstituted under section 5A shall be three years from the date of the reconstitution and the Chairman and other Members of the Board as so reconstituted shall hold office till the expiry of the term for which the Board has been so reconstituted.
- (2) Notwithstanding anything contained in sub-section (1):
- (a) the term of office of an ex-officio Member shall continue so long as he holds the office by virtue of which he is such a Member;
  - (b) the term of office of a Member elected or chosen under clause (c), clause (e), clause (g), clause (h) or clause (i) of section 5 to represent anybody of persons shall come to an end as soon as he ceases to be a Member of the body which elected him or in respect of which he was chosen;
  - (c) the term of office of a Member appointed, nominated, elected or chosen to fill a casual vacancy shall continue for the remainder of the term of office of the Member in whose place he is appointed, nominated, elected or chosen; (d) the Central Government may, at any time, remove for reasons to be recorded in writing a member from office after giving him a reasonable opportunity of showing cause against the proposed removal and any vacancy caused by such removal shall be treated as casual vacancy for the purpose of clause (c).
- (3) The members of the Board shall receive such allowance, if any, as the Board may, subject to the previous approval of the Central Government, provided by regulations made in this behalf,
- (4) No act done or proceeding taken by the Board shall be questioned on the ground merely of the existence of any vacancy in, or defect in the constitution of the Board and in particular, and without prejudice to the generality of the foregoing, during the period intervening between the expiry of the term for which the Board has been reconstituted under section 5A and its further reconstitution under that section, the ex-officio members of the Board shall discharge all the powers and function of the Board.)

**7. Secretary and other employees of the Board :**

- (1) The Central Government shall appoint 10xxxxx the Secretary of the Board.
- (2) Subject to such rules as may be made by the Central Government in this behalf, the Board may appoint such number of other officers and employees as may be necessary for the exercise of its powers and the discharge of its functions and may determine the terms and conditions of service of such officers and other employees by regulations made by it with the previous approval of the Central Government.

- 8. Funds of the Board :** The funds of the Board shall consist of grants made to it from time to time by the Government and of contributions, subscriptions, bequests, gifts and the like made to it by any local authority or by any other person.

**9. Functions of the Board :**The functions of the Board shall be Board

- (a) to keep the law in force in, India for the prevention of cruelty to animals under constant study and advise the Government on the amendments to be undertaken in any such law from time to time;
- (b) to advise the Central Government on the making of rules under this Act with a view to preventing unnecessary pain or suffering to animals generally, and more particularly when they are being transported from one place to another or when they are used as performing animals or when they are kept in captivity or confinement;
- (c) to advise the Government or any local authority or other person on improvements in the design of vehicles so as to lessen the burden on draught animals;
- (d) to take all such steps as the Board may think fit for <sup>11</sup>(amelioration of animals) by encouraging or providing for, the construction of sheds, water-troughs and the like and by providing for veterinary assistance to animals:
- (e) to advise the Government or any local authority or other person in the design of slaughter-houses or the maintenance of slaughter houses or in connection with slaughter of animals so that unnecessary pain or suffering, whether physical or mental, is eliminated in the pre-slaughter stages as far as possible, and animals are killed; wherever necessary, in as humane a manner as possible;
- (f) to take all such steps as the Board may think fit to ensure that unwanted animals are destroyed by local authorities, whenever it is necessary to do so, either instantaneously or after being rendered insensible to pain or suffering.
- (g) to encourage by the grant of financial assistance or otherwise, <sup>12</sup>(the formation or establishment of pinjrapoles, rescue homes, animal shelters, sanctuaries and the like) where animals and birds may find a shelter when they have become old and useless or when they need protection:
- (h) to co-operate with, and co-ordinate the work of, associations or bodies established for the purpose of preventing unnecessary pain or suffering to animals or for the protection of animals and birds;
- (i) to give financial and other assistance to animal welfare organizations functioning in any local area or to encourage the formation of animal welfare organisations in any local area which shall work under the general supervision and guidance of the Board;
- (j) to advise the Government on matters relating to the medical care and attention which may be provided in animal hospital, and to give financial and other assistance to animal hospitals whenever the Board thinks it necessary to do so;
- (k) to impart education in relation to the humane treatment of animals and to encourage the formation of public opinion against the infliction of unnecessary pain or suffering to animals and for the promotion of animal welfare by means of lectures, books, posters, cinematographic exhibitions and the like;
- (l) to advise the Government on any matter connected with animal welfare or the prevention of infliction of unnecessary pain or suffering on animals.

**10. Power of Board to make regulations :** The Board may, subject to the previous approval of the Central Government, make such regulations as it may think fit for the administration of its affairs and for carrying out its functions.

**CHAPTER III**  
**CRUELTY TO ANIMALS GENERALLY**

**11. Treating animals cruelly :** (1) If any person

- (a) beats, kicks, over-rides, over-drives, over-loads, tortures or otherwise treats any animal so as to subject it to unnecessary pain or suffering or causes, or being the owner permits, any animal to be so treated; or
- (b) <sup>13</sup>(employs in any work or labour or for any purpose any animal which, by reason of its age or any disease) infirmity; wound, sore or other cause, is unfit to be so employed or, being the owner, permits any such unfit animal to be employed; or
- (c) wilfully and unreasonably administers any injurious drug or injurious substance to <sup>14</sup>(any animal) or wilfully and unreasonably causes or attempts to cause any such drug or substance to be taken by <sup>15</sup>(any animal); or
- (d) conveys or carries, whether in or upon any vehicle or not, any animal in such a manner or position as to subject it to unnecessary pain or suffering; or \
- (e) keeps or confines any animal in any -cage or other receptacle which does not measure sufficiently in height, length and breadth to permit the animal a reasonable opportunity for movement; or
- (f) keeps for an unreasonable time any animal chained or tethered upon an unreasonably short or unreasonably heavy chain or cord; or
- (g) being the owner, neglects to exercise or cause to be exercised reasonably any dog habitually chained up or kept in close confinement; or
- (h) being the owner of (any animal) fails to provide such animal with sufficient food, drink or shelter; or
- (i) without reasonable cause, abandons any animal in circumstances which tender it likely that it will suffer pain by reason of starvation thirst; or
- (j) wilfully permits any animal, of which he is the owner, to go at large in any street, while the animal is affected with contagious or infectious disease or, without reasonable excuse permits any diseased or disabled animal, of which he is the owner, to die in any street; or
- (k) offers for sale or without reasonable cause, has in his possession any animal which is suffering pain by reason of mutilation, starvation, thirst, overcrowding or other illtreatment; or

<sup>16</sup>{(1) mutilates any animal or kills any animal (including stray dogs) by using the method of strychnine injections, in the heart or in any other unnecessarily cruel manner or;}

<sup>17</sup>{(m) solely with a view to providing entertainment

- (j) confines or causes to be confined any animal (including tying of an animal as a bait in a tiger or other sanctuary) so as to make it an object or prey for any other animal; or
- (n) <sup>18</sup>[xxxx] organises, keeps uses or acts in the management or, any place for animal fighting or for the purpose of baiting any animal or permits or offers any place to be so used or receives money for the admission of any other person to any place kept or used for any such purposes; or
- (o) promotes or takes part in any shooting match or competition wherein animals are released from captivity for the purpose of such shooting:  
he shall be punishable <sup>19</sup>(in the case of a first offence, with fine which shall not be less than ten rupees but which may extend to fifty rupees and in the case of a second or subsequent offence committed within three years of the previous offence, with fine which shall not be less than twenty-five rupees but which may extend, to one

hundred rupees or with imprisonment for a term which may extend, to three months, or with both.]

- (2) For the purposes of section (1) an owner shall be deemed to have committed an offence if he has failed to exercise reasonable care and supervision with a view to the prevention of such offence;

Provided that where an owner is convicted permitting cruelty by reason only of having failed to exercise such care and supervision, he shall not be liable to imprisonment without the option of a fine.

- (3) Nothing in this section shall apply to –

- (a) the dehorning of cattle, or the castration or branding or noserooping of any animal in the prescribed manner, or
- (b) the destruction of stray dogs in lethal chambers <sup>20</sup>[by such other methods as may be prescribed] or
- (c) the extermination or destruction of any animal under the authority of any law for the time being in force; or
- (d) any matter dealt with in Chapter IV; or
- (e) the commission or omission of any act in the course of the destruction or the preparation for destruction of any animal as food for mankind unless such destruction or preparation was accompanied by the infliction of unnecessary pain or suffering.

**12. Penalty for practising phooka or doom dev :** If any persons upon any cow or other milch animal the operation called practising phooka or <sup>21</sup>[doom dev or any other operation (including injection of any or doom dev. substance) to improve lactation which is injurious to the health of the animal] or permits such operation being performed upon any such animal in his possession or under his control, he shall be punishable with fine which may extend to one thousand rupees, or with imprisonment for a term which may extend to two years, or with both, and the animal on which the operation was performed shall be forfeited to the Government.

**13. 'Destruction of suffering animals' :**

- (1) Where the owner of an animal is convicted of an offence under section 11, it shall be lawful for the court, if the court is satisfied that it would be cruel to keep the animal alive, to direct that the animal be destroyed and to assign the animals to any suitable person for that purpose, and the person to whom such animal is so assigned shall as soon as possible, destroy such animal or cause such animal to be destroyed in his presence without unnecessary suffering: and any reasonable expense incurred in destroying the animal may be ordered by the court, if the court is satisfied that it would be cruel to keep the animal alive, to direct that the animal be destroyed and to assign the animal to any reasonable expense incurred in destroying the animal may be ordered by the court to be recovered from the owner as if it were a fine:

Provided that unless the owner assents thereto, no order shall be made under this section except upon the evidence of a veterinary officer in charge of the area.

- (2) When any magistrate, commissioner of police or district superintendent of police has reason to believe that an offence under section 11 has been committed in respect of any animal, he may direct the immediate destruction of the animal, if in his opinion, it would be cruel to keep the animal alive.
- (3) Any police officer above the rank of a constable or any person authorised by the State Government in this behalf who finds any animal so diseased or so severely injured or in such a physical condition that in his opinion it cannot be removed without cruelty, may, if the owner is absent or refuses his consent to the destruction of the animal, forth with summon the veterinary officer in charge of the area in which the animal is found, and if



the veterinary officer certifies that the animal is mortally injured or so severely injured or in such a physical condition that it would be cruel to keep it alive, the police officer or the person authorised, as the case may be, may, after obtaining orders from a magistrate, destroy the animal injured or cause it to be destroyed; <sup>22</sup>(in such manner as may be prescribed)

(4) No appeal shall lie from any order of a magistrate for the destruction of an animal.

## CHAPTER IV

### EXPERIMENTATION OF ANIMALS

**14. Experiments on animals :** Nothing contained in this Act shall render unlawful the performance of experiments (including) experiments involving operations) on animals for the purpose of advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or for prolonging life or alleviating suffering or for combating any disease, whether of human beings, animals or plants.

**15. Committee for control and supervision of experiments on animals :**

- (1) If at any time, on the advice of the Board, the Central Government is of opinion that it is necessary so to do for the purpose of controlling "and supervising experiments on animals it may be notification in the Official Gazette  
Constitute a Committee consisting of such number of officials and non-officials, as it may think fit to appoint thereto.
- (2) The Central Government shall nominate one of the Members of the Committee to be its Chairman.
- (3) The Committee shall have power to regulate its own Procedure in relation to the performance of its duties.
- (4) The funds of the Committee shall consist of grants made to it from time to time by the Government and of contributions, donations, subscriptions, bequests, gifts and the like made to it by any person.

<sup>23</sup>**15A. Sub-Committee :**

- (1) The Committee may constitute as many sub-committees as it thinks fit for exercising any power or discharging any duty of the Committee or for inquiring into or reporting and advising on any matter which the Committee may refer.
- (2) A sub-committee shall consist exclusively of the Members of the Committee.)

**16. Staff of the Committee :** Subject to the control of the Central Government, the Committee may committee appoint such number of officers and other employees as may be necessary to enable it to exercise its powers and perform its duties and may determine the remuneration and other terms and conditions of service of such officers and other employees.

**17. Duties of the Committee and power of the Committee to make rules relating to experiments on animals :** (1) It shall be the duty of the Committee to take all such measures as may be necessary to ensure that animals are not subjected to unnecessary pain or suffering before, during or after the performance of experiments on them, and for the purpose it may, by notification in the Gazette of India and subject to the condition of previous publication, make such rules as it may think fit in animals relation to the conduct of such experiments.

<sup>24</sup>[(1A) In particular, and without prejudice to the generality to the foregoing power, such rules may provide for the following matters namely:

- (a) the registration of persons or institutions carrying on experiments on animals;
  - (b) the reports and other information which shall be forwarded to the Committee by persons and institutions carrying on experiments or, animals.]
- (2) In particular, and without prejudice to the generality of the foregoing power, rules made by the Committee shall be designed to secure the following objects, namely:
- (a) that in cases where experiments are performed in any institution, the responsibility therefore is placed on the person in charge of the institution and that, in cases where experiments are performed outside an institution by individuals, the individuals, are performed outside an institution by individuals, the individuals, are qualified in that behalf and the experiments are performed on their full responsibility;
  - (b) that experiments are performed with due care and humanity and that as far as possible experiments involving operations are performed under the influence of some anaesthetic of sufficient power to prevent the animals feeling pain;
  - (c) that animals which, in the course of experiments under the influence of anaesthetics, are so injured that their recovery would involve serious suffering, are ordinarily destroyed while still insensible;
  - (d) that experiments on animals are avoided wherever it is possible to do so; as for example; in medical schools, hospitals, colleges and the like, if other teaching devices such as books, models, films and the. like, may equally suffice;
  - (e) that experiments on larger animals are avoided when it is possible to achieve the same results by experiments upon small laboratory animals like guinea-'pigs, rabbits, frogs and rats;
  - (f) that, as far as possible, experiments are not performed merely for the purpose of acquiring manual skill;
  - (g) that animals intended for the performance of experiments are properly looked after both before and after experiments;
  - (h) that suitable records are maintained with respect to experiments performed on animals
- (3) In making any rules under this section, the Committee shall be guided by such directions as the Central Government (consistently with the objects for which the Committee is set up) may give to it, and the Central Government is hereby authorised to give such direction.
- (4) All rules made by the Committee shall be binding on all individuals performing experiments outside institutions and on persons incharge of institutions in which experiments are performed.

**18. Power of entry and inspection :** For the purpose of ensuring that the rules made by it are being complied and with the Committee may authorise any of its officers or any other person in writing to inspect any institution or place where experiments are being carried on and report to it as a result of such inspection, and any officer or person so authorised may-

- (a) enter at any time considered reasonable by him and inspect any institution or place in which experiments on animals are being carried on; and
- (b) require any person to produce any record kept by him with respect to experiments on animals.

**19. Power to prohibit experiments on animals :** If the Committee is satisfied, on the report of any officer or other person made to it as a result of any inspection under section 18 or otherwise that the rules made by it under section 17 are not being animals the Committee

may, after giving an opportunity to the person or institution carrying on experiments on animals; the Committee may, after giving an opportunity to the person or institution of being heard in the matter, by order, prohibit the person or institution from carrying on any such experiments either for a specified period or indefinitely, or may allow the person or institution to carry on such experiments subject to such special conditions as the Committee may think fit to impose.

**20. Penalties :** If any person-

- (a) contravenes any order made by the Committee under section 19; or
- (b) commits a breach of any condition imposed by the Committee under that section:
 

he shall be punishable with fine which may extend to two hundred rupees, and, when the contravention or breach of condition has taken place in any institution the person incharge of the institution shall be deemed to be guilty of the offence and shall be punishable accordingly.

## **CHAPTER V**

### **PERFORMING ANIMALS**

**21. "Exhibit" and "train" defined :** In this Chapter, " exhibit" means exhibit or any entertainment to which the public are admitted through sale of tickets, and "train" means train for the purpose of any such exhibition, and the expressions "exhibitor" and "trainer" have respectively the corresponding meanings.

**22. Restriction on exhibition and training of performing animals :** No person shall exhibit or train

- (i) any performing animal unless he is registered in accordance with the provisions of this Chapter;
- (ii) as a performing animal, any animal which the Central Government may, by notification in the official gazette, specify as an animal which shall not be exhibited or trained as a performing animal.

**23. Procedure for registration :**

- (1) Every person desirous of exhibiting or training any performing animal shall, on making an application in the prescribed form to the prescribed authority and on payment of the prescribed fee, be registered under this Act unless he is a person who, by reason of an order made by the court under this Chapter, is not entitled to be so registered.
- (2) An application for registration under this Chapter shall contain such particulars as to the animals and as to the general nature of the performances in which the animals are to be exhibited or for which they are to be trained as may be prescribed, and the particulars so given shall be entered in the register maintained by the prescribed authority.
- (3) The prescribed authority shall give to every person whose name appears on the register kept by them, a certificate of registration in the prescribed form containing the particulars entered in the register.
- (4) Every register kept under this Chapter shall at all reasonable times be open for inspection on payment of the prescribed fee, and any person shall, on payment of the prescribed fee, be entitled to obtain copies thereof or make extracts therefrom.
- (5) Any person whose name is entered in the register shall, subject to the provisions of any order made under this Act by any court, be entitled, on making an application for the purpose, to have the particulars entered in the register with respect to him varied, and where any such particulars are so varied, the existing certificate shall be cancelled and a new certificate issued.

**24. Power of court to prohibit or restrict exhibition and training of performing animals**

- (1) Where it is proved to the satisfaction of any magistrate on a complaint made by a police officer or an officer authorised in writing by the prescribed authority referred to in section 23, that the training or exhibition of any performing animals has been accompanied by unnecessary pain or suffering and should be prohibited or allowed only subject to conditions, the court may make an order against the person in respect of whom the complaint is made, prohibiting the training or exhibition or imposing such conditions in relation thereto, as may be specified by the order.
- (2) Any court by which an order is made under this section, shall cause a copy of the order to be sent, as soon as may be after the order is made, to the prescribed authority by which the person against whom the order is made is registered, and shall cause the particulars of the order to be endorsed upon the certificate filed by the person, and that person shall produce his certificate on being so required by the court for the purposes of endorsement, and the prescribed authority to which a copy of an order is sent under this section shall enter the particulars of the order in that register;

**25. Power to enter premises :**

- (1) Any person authorised in writing by the prescribed authority referred to in section 23 and any police officer not below the rank of a sub-inspector may
  - (a) enter at all reasonable times and inspect any premises in which any performing animals are being trained or exhibited or kept for training or exhibition, and any such animals found therein; and
  - (b) require any person who, he has reason to believe is a trainer or exhibitor of performing animals to produce his certificate of registration,
- (2) No person or police officer referred to in sub section (1) shall be entitled under this section to go on or behind the stage during a public performance of performing animals.

**26. Offences :** If any person –

- (a) not being registered under this chapter, exhibits or trains any performing animal; or
- (b) being registered under the Act, exhibits or trains any performing animal with respect to which or in a manner with respect to which, he is not registered; or
- (c) exhibits or trains as a performing animal, any animal which is not to be used for the purpose by reason of a notification issued under clause (ii) of section 22; or
- (d) obstructs or wilfully delays any person or police officer referred to in section 25 in the exercise of powers under this Act as to entry and inspection; or
- (e) conceals any animal with a view to avoiding such inspection: or
- (f) being a person registered under the Act, on being duly required in pursuance of this Act to produce his certificate under this Act, fails without reasonable excuse so to do; or
- (g) applies to be registered under this Act when not entitled to be so registered, He shall be punishable on conviction with fine which may extend to five hundred rupees or with imprisonment which may extend to three months, or with both.

**27. Exemptions :** Nothing contained in this Chapter shall apply to -

- (a) the training of animals for bonafide military or police purpose or the exhibition of any animals so trained; or
- (b) any animals kept in any zoological garden or by any society or association which has for its principal object the exhibition of animals for educational or scientific purposes.

**CHAPTER VI**  
**MISCELLANEOUS**

**28. Saving as respects manner of killing prescribed by religion :** Nothing contained in this Act shall render it an offence to kill any animal in a manner required by the religion of any community.

**29. Power of court to deprive person convicted of ownership of animal :**

- (1) If the owner of any animal is found guilty of any offence under this Act. the court upon his conviction thereof, may, if it thinks fit, in addition to any other punishment make an order that the animal with respect to which the offence was committed shall be forfeited to Government and may, further, make such order as to the disposal of the animal as it thinks fit under the circumstances. (2) No order under sub section (1) shall be made unless it is shown by evidence as
  - (2) to a -previous conviction under this Act or as to the character of the owner or otherwise as to the treatment of the animal that the animal if left with the owner, is likely to be exposed to further cruelty.
  - (3) without prejudice to the provision contained in sub-section (1), the court may also order that a person convicted of an offence under this Act shall, either permanently or during such period as is fixed by the order, be prohibited from having the custody of any animal of any kind whatsoever, or as the court thinks fit of any animal of any kind or species specified in the order.
  - (4) No order under sub-section (3) shall be made unless
    - (a) it is shown by evidence as to a previous conviction or as to the character of the said person or otherwise as to the treatment of the animal in relation to which he has been convicted that an animal in the custody of the said person is likely to be exposed to cruelty;
    - (b) it is stated in the complaint upon which the conviction was made that it is the intention of the complaint upon the conviction of the accused to request that an order be made as aforesaid and
    - (c) the offence for which the conviction was made was committed in an area in which under the law for the time being in force a licence is necessary for the keeping of any such animal as that in respect of which the conviction was made.
  - (5) Notwithstanding anything to the contrary contained in any law for the time being in force, any person in respect of whom an order is made under sub-section (3) shall have no right to the custody of any animal contrary to the provisions of the order, and if he contravenes the provisions or any order, he shall be punishable with fine which may extend to one hundred rupees, or, with imprisonment for a term which may extend to three months, or with both.
  - (6) Any court which has made an order under sub-section (3) may at any time, either on its own motion or on application made to it in this behalf, rescind or modify such order.

**30. Presumptions as to guilt in certain cases :** If any person is charged with the offences of killing a goat, cow or its to guilt in progeny contrary to the provisions of clause (1) of sub section (1) or section 11, and it is proved that such person had in his possession, at the time the offence is alleged to have been committed, the skin of any such animal as is referred to in this section with any the skin of any such animal as is referred to in this section with any part of the skin of the head attached thereto, it shall be presumed until the contrary is proved that such animal was killed in a cruel manner.

**31. Cognizability of offences :** Notwithstanding anything contained in the Code or Criminal procedure, 1898, (5 of 1898) an offence punishable under clause (1) or clause (n) or clause, (o) of sub-section (1) of section 11 or under section 12 shall be a cognizable offence within the meaning of that code.

**32. Powers of search and seizure :**

- (1) If a police officer not below the rank of sub inspector, or any person authorised by the State Government in this behalf has reason to believe that an offence under clause (1) of sub-section (1) of section 11 in respect of any such animal as is referred to in section 30 is being, or that any person has in his possession the skin of any such animal with any part of the skin of the head attached thereto, he, may enter and search such place or any place in which he has reason to believe any such skin to be, and may seize such skin or any article or thing used or intended to be used in the commission of such offence.
- (2) If a police officer not below the rank of sub-inspector, or any person authorised by the State Government in this behalf, has reason to believe that phooka or 25(doom dev or any other operation of the nature referred to in section 12) has just been or is being, performed on any animal within the limits of his jurisdiction, he may enter any place in which he has reason to believe such animal to be, and may seize the animal and produce it for examination by the veterinary officer incharge of the area in which the animal is seized.

**33. Search warrants :**

- (1) If a magistrate of the first or second class or a presidency magistrate or a commissioner of police or district superintendent of police, upon information in writing; and after such inquiry as he thinks necessary, has reason to believe that an offence under this Act is being, or is about to be, or has been committed in any place, he may either himself enter and search or by his warrant authorise any police officer not below the rank of sub-inspector to enter and search the place.
- (2) The provisions of the Code of Criminal Procedure, 1898, relating to searches shall so far as those provision can be made applicable, apply to searches under this Act.

**34. General Power of seizure for examination :** Any police officer above the rank of a constable or any person authorised seizure for by the State Government in this behalf, who has reason to believe that examination an offence against this Act has been or is being, committed in respect of any animal, may, if in his opinion the circumstances so require, seize the animal and produce the same for examination by the nearest magistrate or by such veterinary officer as may be prescribed; and such police officer or authorised person may, when seizing the animal, require the person in charge thereof to accompany it to the place of examination.

**35. Treatment and care of animals :**

- (1) The State Government, may by general or special order appoint infirmaries for the treatment and care of animals in respect of which offences against this Act have been committed, and may authorise the detention therein of any animal pending its production before a magistrate.
- (2) The magistrate before whom a prosecution for an offence against this Act has been instituted may direct that the animals concerned shall be treated and cared for in an infirmary, until it is fit to perform its usual work or is otherwise fit for discharge, or that it shall be sent to a pinjrapole, or if the veterinary officer in charge of the area in which the animal is found or such a veterinary officer as may be authorised in this behalf by rules made under this Act certifies that it is incurable or cannot be removed without cruelty, that it shall be destroyed.
- (3) An animal sent for care and treatment to an infirmary shall not, unless the magistrate directs that it shall be sent to a pinjrapole or that it shall be destroyed, be released from such place except upon a certificate of its fitness for discharge issued by the veterinary officer in charge of the area in which the infirmary is situated or such other veterinary officer as may be authorised in this behalf by rules made under this Act.

- (4) The cost of transporting the animal to an infirmary or pinjrapole and of its maintenance and treatment in an infirmary, shall be payable by the district magistrate, or, in presidency-towns, by the commissioner of police; Provided that when the magistrate so orders on account of the poverty of the owner of the animal, no charge shall be payable for the treatment of the animal.
- (5) Any amount payable by an owner of an animal under sub-section (4) may be recovered in the same manner as an arrear of land revenue,
- (6) If the owner refuses or neglects to remove the animal within such time as a magistrate may specify, the magistrate may direct that the animal be sold and that the proceeds of the same be applied to the payment of such cost.
- (7) The surplus, if any, of the proceeds of such sale shall, on application made by the owner within two months from the date of the sale be paid to him.

**36. Limitation of prosecutions :** A prosecution for an offence against this Act shall not be instituted after the expiration of three months from the date of the commission of the offence.

**37. Delegation of powers :** The Central Government may, by notification in the official Gazette, direct that all or any of the powers exercisable by it under this Act, may, subject to such conditions as it may think fit to impose, be also exercisable by any State Government.

**38. Power to make rules :**

(1) The Central Government may, by notification in the Official Gazette and subject to the condition of previous publication, make rules to carry out the purposes of this Act. (2) In particular, and without prejudice to the generality of the foregoing power, the Central Government may make rules providing for all or any of the following matters, namely:

(a) the <sup>26</sup>(xxxx) conditions of service of members of the Board, the allowances payable to them and the manner in which they may exercise their powers and discharge their functions.

<sup>27</sup>[(aa) the manner in which the persons to represent municipal corporation are to be elected under clause (e) of sub-section (1) of section

(b) the maximum load (including any load occasioned by the weight of passengers) to be carried or drawn by any animal;

(c) the conditions to be observed for preventing the overcrowding of animals; the period during which, and the hours between which, any class of animals shall not be used for draught purposes:

(a) prohibiting the use of any bit or harness involving cruelty to animals;

<sup>28</sup>[(ea) the other methods of destruction of stray dogs referred to in clause (b) of sub-section (3) of section 11;

(eb) the methods by which any animal which cannot be removed without cruelty may be destroyed under sub-section (3) of section 13,]

(f) requiring persons carrying on the business of a farrier to be licensed and registered by such authority as may be prescribed and levying a fee for the purpose;

(g) the precautions to be taken in the capture of animals for purposes of sale, export or for any other purpose, and the different appliances or devices that may alone be used for the purpose; and the licensing of such capture and the levying of fees for such licences;

(h) the precautions to be taken in the transport of animals whether by rail, road, inland waterway, sea or air and the manner in which and the cages or other receptacles in which they may be so transported;

- (i) requiring person owning or in charge of premises in which animals are kept or milked to register such premises, to comply with such conditions as may be laid down in relation to the boundary walls or surroundings of such premises, to permit their inspection for the purpose of ascertaining whether any offence under this Act is being, or has been committed therein, and to expose in such premises copies of section 12 in a language or languages commonly understood in the locality;
  - (j) the form in which applications for registration under Chapter V may be made, the particulars to be contained therein the fees payable for such registration and the authorities to whom such applications may be made;
- <sup>29</sup>[ja) the fees which may be charged by the Committee constituted under section 15 for the registration of persons or institutions carrying on experiments on animals or for any other purpose;]
- (k) the purposes to which fines realised under the Act may be applied, including such purposes as the maintenance of infirmaries, pinjrapole and veterinary hospitals;
- (1) any other matter which has to be, or may be prescribed.
  - (3) If any person contravenes, or abets the contravention of, any rules made under this section, he shall be punishable with fine which may extend to one hundred rupees, or with imprisonment for a term which may extend to three months, or with both.

<sup>30</sup>[XXXX]

<sup>31</sup>[**38A. Rules and regulations to be laid before Parliament :** Every rule made by the Central Government or by the Committee constituted under section 15 and every regulation made by the Board shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or regulation, as the case may be, should not be made the rule or regulation shall there after have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.]

**39. MPersons authorised under section 34 to be public servants :** Every person authorised by the State Government under section 34 shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal code.

**40. Indemnity :** No suit, prosecution or other legal proceeding shall lie against any person who is, or who is deemed to be a public servant within the meaning of section 21 of the Indian Penal Code in respect of anything in good faith done or intended to be done under this Act.

**41. Repeal of Act 11 of 1890 :** Where in pursuance of a notification under subsection (3) of section 1 of 1890 any provision of this Act comes into force in any State, any provision of the Prevention of Cruelty to Animals Act, 1890, which corresponds to the provision so coming into force, shall thereupon stand repealed.

---



## ANNEXURE

Notifications under section 1 (3) of the Act bringing it into force in specified States and Union Territories.

1. (a) Chapters I and II came into force in the States of Assam, Andhra Pradesh, Bihar, Gujarat, Kerala, Chennai (Tamil Nadu), Maharashtra, Madhya Pradesh, Mysore (Karnataka), Orissa, Uttar Pradesh and West Bengal and the Union Territories of Delhi, Manipur and Tripura on the 1<sup>st</sup> September, 1961, Vide Notification No. 9-2/61 L.D dated 25<sup>th</sup> August, 1951/Bhadra, 1883 of Government of India. Ministry of Food and Agriculture (Department of Agriculture).
2. (b) Chapter IV came into force in the States of Assam, Andhra Pradesh, Bihar, Gujarat, Kerala, Chennai (Tamil Nadu), Maharashtra, Madhya Pradesh, Mysore (Karnataka), Orissa, Rajasthan, Uttar Pradesh and West Bengal and in the Union Territories of Delhi, Himachal Pradesh, Manipur and Tripura on the 15 July, 1963, vide Notification No. 19-12/63-LD dated 11th July 1963/20<sup>th</sup> Asadha, 1885 (S.E.) of Government of India, Ministry of Food and Agriculture (Department of Agriculture).
- (c) Chapters III and IV came into force in the States of Assam, Andhra Pradesh, Bihar, Gujarat, Kerala, Chennai (Tamil Nadu), Maharashtra, Madhya Pradesh, Mysore (Karnataka), Orissa, Uttar Pradesh and West Bengal and the Union Territories of Delhi, Himachal Pradesh, Manipur and Tripura on the 20<sup>th</sup> November, 1963, vide Notification No. 9-24/62-LD dated 29th October, 1963/7th Kartika 1885 (S.E.) of Government of India, Ministry of Food and Agriculture (Department of Agriculture)
- (d) Chapters III and VI came into force in West Bengal on the 1st June, 1975, vide Notification No. 21-2/74-LDI. dated 28th May, 1975 of Government of India, Ministry of Agriculture and Irrigation (Department of Agriculture)
- (e) The whole Act came into force in the State of Punjab and the Union Territory of Andaman and Nicobar Islands on the 1st April, 1961 vide Notification No. 9-2/61-LD of the Ministry of Food and Agriculture.
- (f) Chapters I and II came into force in the then Union Territory of Himachal Pradesh on the 2nd October, 1961, vide Notification No. 9-2/61 LP of the Ministry of Food and Agriculture.
- (g) Chapters I and II came into force on the 26th January, 1962 in the State of Rajasthan vide Notification No. 9-2/61-LD. of the Ministry of Food and Agriculture.
- (h) Chapter V came into force in all the States and Union Territories (except Jammu & Kashmir) on 24th May 1977 Vide Notification No. 14-22/76-LDI dated 24th May 1977 of Government of India, Ministry of Agriculture and Irrigation (Department of Agriculture).

- 
- <sup>1</sup> See Annexure for notifications under Section 1 (3)
  - <sup>1</sup>Subs. by Act. 26 of 1982 which came into force on 30th July 1982.
  - <sup>2</sup>Subs. by Act 26 of 1982; S.3, for the words "Animal Welfare Board".
  - <sup>3</sup>Sub-ibid, SA for the words "Animal Welfare Board".
  - <sup>4</sup>inserted by Act 26 of 1982; S. 5 (a) (i)
  - <sup>5</sup>Subs. - ibid S. 5 (a) (ii) for the original clause.
  - <sup>6</sup>Subs. by Act 26 of 1982: S.5 (b), for the word, brackets and letter clause (b)
  - <sup>7</sup>Subs. ibid, S.5 (c) for the original clause.
  - <sup>8</sup> ins. ibid, S.6.
  - <sup>9</sup>Subs., by Act 26 of 1982, S.7, for the original Section.
  - <sup>10</sup>The words "one of its officers to be" omitted by Act 26 of 1982,
  - <sup>11</sup>Subs, by Act 26 of 1982, S.9 (a) for the word "ameliorating the condition of beasts of burden
  - <sup>12</sup>"Subs, ibid, S, 9 (b) for the words "the formation of pinjrapoles, sanctuaries and the like"
  - <sup>13</sup>Subs. by Act 26 of 1982, S. 10 (a) (i) for the words "employs in any work or labour any animal which, by reason of any disease";
  - <sup>14</sup>Subs. ibid S.10 (a) (ii) for the words "any domestic or captive animal".
  - <sup>15</sup>Subs, ibid S. 10 (a) (ii) for the words "any captive animal".
  - <sup>16</sup>Subs. by Act 26 of 1982, S. 10 (a) (iv) for the original clause.
  - <sup>17</sup>Subs. ibid. S. 10 (a) (v) for the original clause.
  - <sup>18</sup>The words "for the purposes of his business" omitted by Act 26 of 1982, S. 10 (a) (vi)
  - <sup>19</sup>Subs. ibid S. 10 (a) (vii) for the portion beginning with the words "in the case of a first offence" and ending with the words "or with both".
  - <sup>20</sup>Subs. by Act 26 of 1982, S. 10 (b), for the words "by the other methods with a minimum of suffering".
  - <sup>21</sup>Subs. ibid S. 11, for the words, "doom dev"
  - <sup>22</sup>Ins. by Act 26 of 1982, S. 12
  - <sup>23</sup>Ins. by Act 26 of 1982, S. 13.
  - <sup>24</sup>Ins. by Act 26 of 1982, S. 14.
  - <sup>25</sup>Subs. by Act 26 of 1982 S. 15 for the words "doom dev".
  - <sup>26</sup>The words "terms and" omitted by Act 26 of 1982, S. 16 (a) (i).
  - <sup>27</sup>Ins ibid S. 16 (a) (H).
  - <sup>28</sup>Ins by Act 26 of 1982 S. 16 (a) (iii)
  - <sup>29</sup>Ins. by Act 26 of 1982. S. 16 (a) (iv)
  - <sup>30</sup>Sub-section (4) of the Principal Act omitted by Act 26 of 1982. S. 16(b)
  - <sup>31</sup>Ins. ibid S, 17.

### **Transport of Animals, Rules, 1978.**

In exercise of the powers conferred by clause (h) of sub-section (2) of Section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960); the Central Government hereby makes the following rules, the same having been previously published as required by the said Section, namely :

### **Transport of Animals Rules, 1978.**

#### **Chapter I**

##### **1. Short Title**

These rules may be called the Transport of Animals, Rules, 1978.

##### **2. Definitions :**

In these rules, unless the context otherwise requires

- (b) qualified veterinary surgeon means one who holds a diploma or a degree of a recognized veterinary college.
- (c) "Schedule" means a schedule appended to these rules.

#### **CHAPTER II**

#### **Transport of Dogs and Cats**

- 3. Rules 4 to 14 shall apply to the transport of dogs and cats of all breeds whether by rail, road, inland, waterway, sea or air.
- 4. (a) A valid health certificate by a qualified veterinary surgeon to the effect that the dogs and cats are in a fit condition to travel by a rail, road, inland waterway, sea or air and are not showing any sign of infectious or contagious disease including rabies, shall accompany each consignment and the certificate shall be in the form specified in Schedule - A.
  - (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
- 5. No dog or cat in an advanced stage of pregnancy shall be transported.
- 6. (a) Dogs or cats to be transported in the same container shall be of the same species and breed.
  - (b) Unweaned puppies of kittens shall not be transported with adult dogs or cats other than their dams.
  - (c) No female dog or cat in season (cestrus) shall be transported with any male.
- 7. (a) Any dog or cat reported to be vicious or exhibiting a vicious disposition shall be transported individually in a cage, muzzled and labelled to give warning to the handlers.
  - (b) In extreme cases, the dogs and cats shall be administered with sedative drugs by a qualified veterinary surgeon.
- 8. (1) When dogs or cats are to be transported for long distances:
  - (a) they shall be fed and given water atleast two hours prior to their transport and shall not be packed for transport if they are hungry or thirsty. they should be exercised as late as possible before despatch.

- (b) they shall be given adequate water for drinking every four hours in summer or every six hours during winter.
  - (c) they shall be fed once in twelve hours in the case of adult dogs or cats and
  - (d) they shall be fed once in four hours in the case of puppies and kittens in accordance with the instructions of the consignors if any.
  - (e) adequate arrangements shall be made for their care and management during the journey.
- (2) When the dogs or cats are to be transported by rail involving a journey of more than, six hours, an attendant shall accompany the dogs or cats to supply them with food and water on the way and the attendant shall have access to the dogs or cats for this purpose at all stations and no dog or cat shall be exposed to the direct blast of air during such journey.
9. Where dogs or cats are to be transported for short distance by road in a public vehicle, the following precautions are to be taken namely:
- (a) they shall be put in a cage and the cage containing the dogs or cats shall not be put on the roof of the vehicle but shall be put inside the vehicle preferably near the end of the vehicle
  - (b) the vehicle transporting the dogs or cats shall as far as possible maintain constant speed, avoiding sudden stops and reducing effects of shocks and jolts to the minimum.
  - (c) at least one attendant shall be present at all times during transit who shall ensure that proper transit conditions are observed and shall also replenish food and water whenever necessary.
- 10. Where dogs or cats are to be transported by air:**
- (a) the cages shall be properly cleaned and disinfected before the dogs or cats are put in the cages.
  - (b) sufficient paddy straw or saw dust or paper cuttings shall be provided for cats in the cages as resting material.
  - (c) for international transport, the dogs or cats shall be kept in pressurized compartment with regulated temperature.
11. The size and type of crates for transport of dogs and cats shall conform as clearly as may be to the size and type specified in Schedule - B and Schedule - C respectively.
12. All containers of dogs or cats shall be clearly labelled showing the names address and telephone number (if any) of the consignor.
13. The consignee shall be informed about the train or transport arrival or flight number and its time of arrival in advance.
14. Consignment of dogs or cats to be transported by rail or road shall be booked by the next passenger or main train or bus and should not be detained after accepting the consignment for booking.

### **CHAPTER III**

#### **Transport of Monkeys**

15. Rules 16 to 23 shall apply to the transport of all types of monkeys from the trapping area to the nearest rail-head.

16. (a) A valid health certificate by a qualified veterinary surgeon to the effect that the monkeys are in a fit condition to travel from the trapping area to the nearest unit-head and are not showing any sign of infections or contagious disease shall accompany each consignment.
- (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
- (c) The certificate shall be in a form specified in Schedule - D.
17. (1) Monkeys from one trapping area shall not be allowed to mix with monkeys from any other trapping area for preventing the dangers of cross - infection.
- (2) The time in transit from trapping area to the nearest rail-head shall be as short as possible and factors causing stress to monkeys shall be reduced to the minimum.
- (3) If the travel time is longer than six hours provision shall be made to feed and to give - water to the monkeys en route.
- (4) During transit, precautions shall be taken to protect the monkeys from extreme weather conditions and monkeys that die en route shall be removed at the earliest available opportunity.
18. Monkeys that are not completely weaned, that is, under 1.8 kilogram in weight, shall not be transported except when specifically permitted by the Central Government.
19. (a) Pregnant and nursing monkeys shall not be transported except when specifically permitted by the Central Government.
- (b) Pregnant and nursing monkeys as well as monkeys weighing more than 5 kilograms- shall be transported in compartmented cages.
20. All monkeys in the same cage shall be of the same species and of approximately the same weight and size.
21. Monkeys captured within their natural habitat shall be placed in new, sterilized or thoroughly cleaned cages and subsequent transfer, if any, shall also be new, disinfected or thoroughly cleaned cages.
22. Monkeys shall be transported from trapping area to the nearest rail-head by the fastest means of transport available and the monkeys shall not be left un-attended at any time during the journey.
23. (1) (a) Monkeys shall be transported in suitable wooden or bamboo cages, so constructed as not to allow the escape of the monkeys but permit sufficient passage of air ventilation.
- (b) No nails, metallic projections or sharp edges shall be exposed on the exterior or in the interior of the cages.
- (c) Each cage shall be equipped with appropriate water and feed receptacles which are leak proof and capable of being cleaned and refilled during transit.
- (2) The floor of the cages shall be made of bamboo reapers and the space between each reaper shall range between 20 mm and 30mm.
- (3) To facilitate carriage of these cages, provision may be made for rope loops at the four top ends.
- (4) The weight of any one loaded cage shall not exceed 45 kilograms.
- (5) The following two sizes of cages shall be used.

- (a) 910 x 760 x 510 mm - to contain not more than twelve monkeys, weighing between 1.8 and 3.00 kilograms each or ten monkeys weighing between 3.1 and 5.0 kilograms each.
- (b) 710 x 710 x 510 mm - to contain not more than ten monkeys weighing between 1.8 and 3.00 kilograms each or eight monkeys weighing between 3.1 and 5.00 kilograms each.
- Provided that wooden cages as specified in Schedule - F to these rules may also be used for carrying monkeys from the trapping area to the nearest rail-head.
- (6) The construction details of two types of cages shall be given in Schedule - E.
24. Rules 25 to 32 shall apply to transport of monkeys from a rail - head to another railhead or from a rail-head to nearest airport.
25. (a) Loading and unloading shall be carried out quickly and efficiently.
- (c) Cages shall be stored in such a manner that ventilation is adequate and the monkeys are not exposed to drought and direct heat or cold.
- (d) Monkeys found dead shall be removed as quickly as possible for suitable disposal.
26. The transport cages shall be in accordance with specifications given in rule 28.
27. (1) Due provision shall be made by the sender for a sufficient supply of food and water for the journey.
- (2) In case the journey is over six hours an attendant shall accompany the monkeys to supply them food, water, and such other things, on route and he shall have access to the monkeys for feeding, giving water and attention at all stations en route.
- (3) The food and water containers shall be checked at least every six hours and refilled, if necessary.
- (4) Monkeys shall not be disturbed during the night hours.
28. Not more than one cage shall be placed over the other and gunny packing shall be placed between two cages, when one is placed over the other.
29. Monkeys shall be brought to the airport sufficiently early.
30. Monkeys shall be provided with food and water immediately before loading on the aircraft.
31. (a) The cages shall be clearly labelled showing the name, address and telephone number (if any) of the consignor and the consignee in bold red letters.
- (b) The consignee shall be informed about the train in which the consignment of monkeys is being sent and its, arrival time in advance.
- (c) The consignment of monkeys to be transported shall be booked by the next passenger or main train and should not be detained after the consignment is accepted for booking.
32. (a) A valid health certificate by a qualified Veterinary Surgeon to the effect that the monkeys are in a fit condition to travel from the nearest rail-head to another railhead or from a rail-head to the nearest airport and are not showing any signs of infectious or contagious disease shall accompany each consignment.
- (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.

- (c) The certificate shall be in a form specified in Schedule - D.
33. Rules 34 to 45 shall apply in relation to the transport of monkeys by air.
34. The time in transit shall be as short as possible and factors causing stress to monkeys shall be reduced to the minimum.
35. Monkeys that are not completely weaned, that is, under 1.8 kilograms in weight, shall not be transported except when specifically permitted by the Central Government.
36. Pregnant and nursing monkeys shall not be transported except when specifically permitted by the Central Government. Pregnant and nursing monkeys and monkeys weighing over 5 kilograms shall be transported in specially designed individual cages.
37. All monkeys in the same cage shall be of the same species and of approximately the same weight and size.
38. (1) In view of the dangers of infection, only monkeys of the same species shall be transported in the same cabin or compartment of the aircraft.
- (2) Apparently sick or disabled monkeys exhibiting external injuries or infested with parasites shall not be transported.
- (3) Transport of other species of animals, birds, fish food stuff or poisonous materials, such as pesticides and insecticides, in the same cabin or compartment shall not be permitted.
39. (1) At no time during transit shall the monkeys be left unattended when carried in a freighter aircraft.
- (2) At least one attendant shall be present at all times when the aircraft is on the round.
40. (1) Monkeys shall be transported in suitable wooden cages, so constructed as not to allow the escape of the monkeys and shall allow sufficient passage of air for ventilation; no nails, metallic projections or sharp edges shall be exposed in the interior or on the exterior of such cages. Each cage shall be equipped with water and food receptacles which shall be leak - proof and be capable of being cleaned and refilled during transit. A suitable absorbent material such as saw dust shall be kept in the dropping trays.
- (2) The weight of any one loaded cage shall not exceed 45 kilograms in any case.
- (3) The following two sizes of cages shall be used:
- (a) 460 x 460 x 460 mm - to contain not more than ten monkeys weighing from 1.8 to 3.0 kilograms each or four monkeys weighing from 3.1 to 5.0 kilograms each; and
- (b) 760 x 530 x 460 mm - to contain not more than ten monkeys weighing from 1.8 to 3.0 kilograms each or eight monkeys weighing from 3.1 to 5.0 kilograms each.
- (4) The construction details of the two types of cages shall be as given in Schedule - F.
- (5) The construction details of the two types of cages used for the transport of pregnant and nursing monkeys shall be as given in Schedule - G.
41. (a) The cages shall be clearly labelled showing the name, address and telephone number (if any) of the consignor and the consignee in bold red letters.

- (b) The consignee shall be informed in advance about the flight number of the freighter aircraft in which the consignment of monkeys is being sent and its arrival time.
- (c) The consignment of monkeys to be transported shall be booked by the next flight of the freighter aircraft and should not be detained after the consignment is accepted for booking.

42.

- (1) A valid health certificate by a qualified veterinary surgeon to the effect that the monkeys are fit to travel by air and are not showing any signs of infectious or contagious disease shall accompany each consignment of monkeys.
- (2) In the absence of such a certificate, the carrier shall refuse to accept the consignment for shipment.
- (3) The form of certificate under sub-rule (1) be as given in Schedule - D.

43.

- (1) The air shall be changed not less than twelve times per hour and draughts shall be avoided and there shall be no dead pockets of air.
- (2) Except when the monkeys are being fed and given water; they shall travel in semi darkness to make them quieter and less inclined to fight and thus give them better opportunities of resting.

44. The food and water containers shall be checked at every stop and refilled ; if necessary, and a sufficient stock of food shall be available on the aircraft and at likely stopping places.

Note : About 85 grams of food per monkey is required daily. Suitable foods are dry cereal grains or gram. It is recommended that whole gram made into biscuits or wheat meal bread should be fed. A minimum of 140 ml. of water shall be allowed for each monkey per day.

- 1. An empty cage of the usual dimensions with its sides covered except 50mm at the top to allow for ventilation shall be provided in the freighter aircraft for housing the monkeys which fall sick or are injured during the journey.

## **CHAPTER IV**

### **Transport of Cattle**

46 Rules 47 to 56 shall apply to the transport by rail of cows, bulls, bullocks, buffaloes, yaks and calves. (hereinafter in these rules referred to as cattle).

47

- (a) A valid certificate by a qualified veterinary surgeon to the effect that the cattle are in a fit condition to travel by rail or road and are not suffering from any infectious or contagious or parasitic diseases and that they have been vaccinated against rinderpest and any other infectious or contagious or parasitic diseases, shall accompany each consignment.
- (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
- (c) The certificate shall be in the form specified in Schedule - E.



48. Veterinary first-aid equipment shall accompany all batches of cattle.
- 49.
- (a) Each consignment shall bear a label showing in bold red letters the name, address and telephone number (if any) of the consignor and consignee, the number and types of cattle being transported and quantity of rations and food provided.
  - (b) The consignee shall be informed about the train or vehicle in ' which the consignment of cattle is being sent and its arrival time in advance.
  - (c) The consignment of cattle shall be booked by the next train or vehicle and shall not be detained after the consignment is accepted for booking.
50. The average space provided per cattle in Railway wagon or vehicle shall not be less than two square metres.
- 51.
- (a) Suitable rope and platforms should be used for loading cattle from vehicles.
  - (b) In case of railway wagon the dropped door of the wagon may be used as a ramp when loading or unloading is done to the platform.
52. Cattle shall be loaded after they are properly fed and given water.
53. Cattle in advanced stage of pregnancy shall not be mixed with young cattle in order to avoid stampede during transportation.
- 54.
- (1) Watering arrangements on route shall be made and sufficient quantities of water shall be carried for emergency.
  - (2) Sufficient feed and fodder with adequate reserve shall be carried to last during the journey.
  - (3) Adequate ventilation shall be ensured.
55. When cattle is to be transported by rail.
- (a) An ordinary goods wagon shall carry not more than ten adult cattle or fifteen calves on broad gauge, not more than six adult cattle or ten calves on metre guage, or not more than four adult cattle or six calves on narrow gauge.
  - (b) every wagon carrying cattle shall have at least one attendant.
  - (c) cattle shall be loaded parallel to the rails, facing each other.
  - (d) rations for padding, such as straw, shall be placed on the floor to avoid injury if a cattle lies down and this shall not be less than 6 cms thick.
  - (e) rations for the journey shall be carried in the middle of the wagon.
  - (f) to provide adequate ventilation, upper door of one side of the wagon shall be kept open properly fixed and the upper door of the wagon shall have wire gauge closely welded mesh arrangements to prevent burning cinders from the engines entering the wagon and leading to fire outbreak.
  - (g) cattle wagons should be attached in the middle of the train.
  - (h) cooking shall not be allowed in the wagons nor hurricane lamps without chimneys.

- (i) two breast bars shall be provided on each side of the wagon, one at height of 60 to 80 cm and the other at 100 to 110 cm.
  - (j) Cattle-in-milk shall be milked at least twice a day and the calves shall be given sufficient quantity of milk to drink.
  - (k) As far as possible, cattle may be moved during the nights only.
  - (l) during day time, if possible, they should be unloaded, fed, given water and rested and if in milk, milking shall be carried out.
56. When cattle are to be transported by goods vehicle the following precautions are to be taken namely
- (a) Specially fitted goods vehicles with a special type of tail board and padding around the sides should be used.
  - (b) Ordinary goods vehicles shall be provided with anti-slipping material, such as coir matting or wooden board on the floor and the superstructure, if low, should be raised.
  - (c) no goods vehicle shall carry more than six cattle.
  - (d) each goods vehicle shall be provided with one attendant.
  - (e) while transporting, the cattle, the goods vehicle shall not be loaded with any other merchandise; and
  - (f) to prevent cattle being frightened or injured, they should preferably, face the engine.

## **CHAPTER V**

### **Transport of Equines**

57. Rules 57 to 63 shall apply to the transport by rail, road or sea or horses, mules and donkeys (hereinafter-in these rules referred to as 'equines')
- 58.
- (a) A valid certificate by a qualified veterinary surgeon to the effect that the equines are in a fit condition to travel by rail; road or sea and are not suffering from any infectious or contagious disease or diseases shall accompany each consignment.
  - (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
  - (c) The certificates shall be in a form specified in Schedule - 1.
- 59.
- (a) Each consignment shall bear a label showing in bold red letters the name address and telephone number (if any) of the consignor and consignee the number and type of equines being transported and quantity of rations and food provided.
  - (b) The consignee shall be informed in advance about the train or vehicle or ship in which the consignment of equines is being sent and its arrival time.
  - (c) The consignment of equines shall be booked by the next train or vehicle or ship and shall be accepted for booking.

- 60.
- (a) Pregnant and young equines shall not be mixed with other animals.
  - (b) Different species of equines shall be kept separately.
  - (c) Equines shall be loaded after being fed and given water adequately, watering arrangements shall be made enroute and sufficient food carried to last during the journey.
  - (d) Veterinary first-aid equipment shall accompany all batches of equines.
  - (e) Adequate ventilation shall be ensured.
  - (f) Suitable ramps and platforms, improvised where not available, shall be used for loading and unloading equines.
61. For the transport of equines by rail, the following precautions shall be taken
- (a) Equines shall be transported by passenger or mixed trains only;
  - (b) Ordinary goods wagon when used for transportation shall carry not more than eight to ten horses or ten mules or ten donkeys on broad gauge and not more than six horses or eight donkeys on metre-gauge
  - (c) in extreme hot, water shall be sprinkled over the wagons containing equines by the railway authorities to bring down temperature. Ice slabs in specially made containers may be placed inside the wagon, if recommended by a qualified veterinary surgeon;
  - (d) every wagon shall have two attendants if the equines are more than two in number;
  - (e) equines shall be loaded parallel to the rails, facing each other;
  - (f) material for padding, such as paddy, straw, shall be placed on the floor to avoid injury if an animal lies down and this shall not be less than 6 cm thick;
  - (g) to provide adequate ventilation, upper door of the side of the wagon shall be kept open and properly fixed and the upper door of the wagon shall have wire gauge closely welded mesh arrangements to prevent burning cinders from the engines entering the wagon and leading to fire break out;
  - (h) two breast bars shall be provided on each side of the wagon, one at a height of 50 to 80 cm and the other at 110 cm.
62. For the transport of equines by goods-vehicles, the following precautions shall be taken, namely :
- (a) Specially fitted vehicles with a special type of tail-board and padding around the sides shall be used ;
  - (b) ordinary goods vehicles shall be provided with antislipping material on the floor and the super structure, if low, should be raised;
  - (c) bamboo poles of at least 8 cm diameter between each animal and two stout batons at the back shall be provided to prevent the animal from falling;
  - (d) to prevent horses from being frightened or injured their heads should face left away from the passing traffic;
  - (e) each vehicle shall not carry more than four to six equines;

- (f) each vehicle shall be provided with one attendant;
  - (g) these vehicles shall be driven at a speed not more than 35 kilometers per hour;
63. For the transport of equines by sea the following precautions shall be taken, namely:
- (a) horses may normally be accommodated in single stalls and mules in pens, each pen holding four to five mules;
  - (b) ample ventilation shall be ensured by keeping portholes and providing permanent air trunks or electric blowers on all decks, and exhaust fans shall be installed to blow out foul air;
  - (c) all standings shall be athwart the ship with heads facing inwards;
  - (d) to avoid distress specially during hot weather, the ship may go underway immediately after embarking and disembarking shall be done as early as possible after anchoring.
  - (e) colts and fillies shall be kept on the exposed decks;
  - (f) a pharmacy and spare stalls for five per cent of equines shall be available;
  - (g) passage between two rows of pens shall not be less than 1.5 metres.

## **CHAPTER - VI**

### **Transport of Sheep and Goats**

64. Rules 65 to 75 shall apply to the transport of sheep and goats by rail or road involving journeys of more than six hours.
- 65.
- (a) A valid health certificate by a qualified veterinary surgeon to the effect that the sheep and goats are in a fit condition to travel by rail or road and are not suffering from infectious or contagious or parasitic disease shall accompany each consignment.
  - (b) In the absence of such a certificate, the carrier shall refuse to accept the consignment for transport.
  - (c) The certificate shall be in a form specified in Schedule – J
- 66.
- (a) Each consignment shall bear a label showing in bold red letters the name, address and telephone number (if any) of the consignor and consignee the number and type of sheep or goats being transported and quantity of rations and food provided.
  - (b) The consignee shall be informed in advance about the train or vehicle in which the consignment of sheep or goats are being sent and its arrival time.
  - (c) The consignment of sheep or goats shall be booked by the next train or vehicle and shall not be detained after the consignment is accepted for booking.
- 67.
- (a) First-aid equipment shall accompany the sheep or goats in transit.
  - (b) Suitable romps shall be provided for loading and unloading the sheep or goats.
  - (c) In the case of a railway wagon, when the loading or unloading is done on the plot form the dropped door of the wagon shall be used as a ramp.

68. Sheep and goats shall be transported separately; but if the lots are small special partition shall be provided to separate them.
69. Rams and male young stock shall not be mixed with female stock in the same compartment.
70. Sufficient food and fodder shall be carried to last during the journey and watering facility shall be provided at regular intervals.
71. Material for padding, such as straw, shall be placed on the floor to avoid injury if an animal lies down, and this shall be not less than 5 cm. thick
72. The animals shall not be fettered unless there is a risk of their jumping out and their legs shall not be tied down.
73. The space required for a goat shall be the same as that for a woolled sheep and the approximate space required for a sheep in a goods vehicle or a railway wagon shall be as under:-

**Approximate weight of animal in Kilogram  
Space required in Square metres**

	Woolled	Shorn
Not more than 20	0.18	0.16
More than 20 but not more than 25	0.20	0.18
More than 25 but not more than 30	0.23	0.22
More than 30	0.28	0.26

74. (a) No railway wagon shall accommodate more than the following number of the sheep or goats :

Broad gauge		Metre gauge		Narrow gauge	
(1)	(2)	(3)	(4)	(5)	
<b>Area of wagon</b>	<b>Area of Wagon</b>	<b>Area of Wagon</b>	<b>Area of Wagon</b>		
Less than	21.1	Less than	12.5		
21.1	Square Metres And above	12.5	Square Metres and above		
70	100	50	60	25	

- (b) Adequate ventilation shall be provided in every wagon. Upper door of one side of wagon shall be kept open and properly fixed and the upper door of the wagon shall have wire gauge closely welded mesh arrangements to prevent burning cinders from the engines entering the wagon and leading to fire breakout.
75. (1) Goods vehicles of capacity of 5 or 4 1/2.tons, which are generally used for transporting animals, shall carry not more than forty sheep or goats.
- (2) In the case of large goods vehicles and wagons, partition shall be provided at every two or three metres across the width to prevent the crowding and trapping of sheep and goats.
- (3) In the case of ewes, goats or lambs or kids under six weeks of age, separate panels shall be provided.

**I.SCHEDULAE – A**

(SEE RULE 4)

**Proforma for certificate of fitness to Travel - Dogs / Cats**

This Certificate should be completed and signed by a qualified Veterinary Surgeon

Date and time of examination : .....

Species of dogs / cats : .....

Number of cages : ..... Number of Dogs / cats .....

Breed and identification marks, if any .....

Transported from .....To .....Via.....

I hereby certify that I have read rules 8 to 14 in Chapter 11 of the Transport of Animals Rules, 1978.

1. That, at the request of (consignor) .....I have examined the above mentioned dogs / cats in their travelling cages not more than 12 hours before their departure.
2. That each of the dogs / cats appeared to be in good health, free from signs of injury, contagious and infectious disease including rabies and in a fit condition to travel by rail / road / inland / waterway / sea / air.
3. That the dogs / cats were adequately fed and watered for the purpose of the journey.
4. That the dogs / cats have been vaccinated.

(a) Type of vaccine/s:

(b) Date of vaccination/s:

Signed .....

Address.....

.....

.....

Qualifications.....

Date .....

## 2.SCHEDULE – B

(SEE RULE 11)

### Size and Type of Crate for Transport of Dogs

The design of the cage mentioned in rule 11 in Chapter 11 of the Transport of Animals Rules, 1978 shall be as per the design as printed on page 7 of IS: 4746 - 1968 published by the Indian Standards Institution.

- All dimensions in centimetres

**By Rail / Road / Inland Waterways Sea, By Air**

Length (L)	$A \times 1 \frac{1}{2}$	$A + C + 10$
Width (W)	A	$D + 2 + 10$
Height (H)	$B + 15$	$B + 0$

- Length - tip of nose to root of tail (A)
- Width - width across the shoulders (D)
- Height - Tip of ears to toe while standing (13)
- Elbow size - Toe to tip of elbow (C)

**Note :** Cages, Cartons or crates, used to transport dogs, shall be of such material which will not tear or crumble. They shall be well constructed, well ventilated and designed to protect the health of dogs by giving them adequate space and safety. It is essential that wire mesh should be nose and paw proof; suitable material is that welded wire mesh of not less than 3mm with a spacing 12 x 12 mm. Expanded metal and wire netting are unsuitable for this purpose. There should be no protruding nails or unprotected edges of wire. Dogs Kennels in rail coaches shall be so placed as to give protection to dogs from extremes of temperature and disturbance from birds and by giving them adequate space for health and safety.

## 3. SCHEDULE - C

(SEE RULE 11)

### Size and Type of Crate for Transport of Cats

The design of the cage mentioned in rule 11 in Chapter 11 of the Transport of Animals Rules, 1978 shall be as per the design as printed on page 8 of ISI 4746 - 1968 published by the Indian Standards Institution.

**All dimensions in Centimetres**

**By rail / road / inland waterways sea by air**

Length (L)	A x 2	A x 2
Width (W)	A	A
Height (H)	B + 15	B + 10

- Length - Tip of nose to root of tail (A)
- Width - Width across the shoulders (D)
- Height - Tip of ears to toe while standing (B)
- Elbow size - Toe to tip of elbow (C)

**Note:** Cages, cartons or crates, used to transport cats, shall be of such material which will not tear or crumble. They shall be well constructed, well ventilated and designed to protect the health of the cats by giving them adequate space and safety. It is essential that wire mesh should be nose and paw proof; suitable material is a welded wire mesh of not less than 3mm with a spacing 12 x 12 mm. Expanded metal wire netting are unsuitable for this purpose. There should be no protruding nails or unprotected edges of wire. Cats Kennels in rail coaches shall be so placed as to give protection to cats from extremes of temperature and disturbance from birds and by giving them adequate space for health and safety.

#### 4. SCHEDULE - D

(SEE RULE 16 AND 32)

##### Proforma for Certificate of fitness to Travel Monkeys

This Certificate should be completed and signed by a qualified Veterinary Surgeon.

Date & time of examination: .....

Species of Monkeys : .....

Number of Cages .....Number of Monkeys .....

Sex.....Age.....

Breed and identification marks, if any .....

Transported from .....To.....Via .....

I hereby certify that I have read rules 15 to 45 in Chapter III of the Transport of Animals Rules, 1978.

1. That, at the request of (consignor) .....I have examined the above mentioned monkeys in their travelling cages not more than 12 hours before their departure.
2. That each monkey appeared to be in a fit condition to travel from the trapping area to the nearest rail-head / from the nearest rail-head to another rail-head / from the rail - head to the nearest airport / by air and is not showing any signs of infectious or contagious diseases.
3. That the monkeys appeared to be under 6 months of age and that no animal appeared to be pregnant.



4. That the monkeys were adequately fed and watered for the purpose of the journey.
5. That the monkeys have been vaccinated.
  - (a) Type of vaccine/s:
  - (b) Date of vaccination/s:

Signed.....

Address

.....

.....

Qualifications.....

Date .....

#### **5. SCHEDULE - E**

[See Rule 23(5) (a) and Rule 23(6)]

#### **Size and Type of Crate for transport of Monkeys from Trapping area to nearest Rail-head**

The construction details of two types of cages mentioned in rule 22(5) (a) in Chapter III of the Transport of Animals Rules, 1978 shall be as per the dimensions and design as printed on page 5 of IS: 3699 (Part - 1) - 1966 published by Indian Standards Institution.

#### **6. SCHEDULE - F**

[See Rule 40 (4)]

#### **Size and Type of Crate for Transport of Monkeys by Air**

The construction details of two types of cages mentioned in rule 40(3) (a) and (b) in Chapter III of the Transport of Animals Rules, 1978 shall be as per the dimensions and design as printed on page 6 of IS: 3059 - 1965 published by Indian Standards Institution.

#### **7. SCHEDULE - G**

[See Rule 40 (5)]

#### **Size and Type of Crate for Transport by Air of pregnant and Nursing Monkeys and Monkeys weighing over 5 kg.**

The construction details of two types of cages mentioned in rule 40(5) in Chapter III of the Transport of Animals Rules, 1978 shall be as per the dimensions and design as printed on page 7 of IS: 3059 -1965 published by Indian Standards Institution.

## 8. SCHEDULE - H

[See Rule 47]

### Proforma for Certificate of fitness to travel Cattle

This Certificate should be completed and signed by a qualified Veterinary Surgeon

Date and time of examination : .....

Species of cattle : .....

Number of Trucks / Railway Wagons .....

Number of cattle : .....

Sex.....Age .....

Breed and identification marks, if any .....

Transported from ..... To ..... Via.....

I hereby certify that I have read rules 46 to 56 in Chapter IV of the Transport of Animals Rules, 1978.

1. That, at the request of (consignor) .....I have examined the above mentioned Cattle in the goods vehicle/ railway wagons not more than 12 hours before their departure.
2. That each cattle appeared to be in a fit condition to travel by rail/road and is not showing any signs of infectious or contagious or parasitic disease and that it has been vaccinated against rinderpest and any other infectious or contagious or parasitic diseases(s).
3. That the cattle were adequately fed and watered for the purpose of the journey.
4. That the cattle have been vaccinated.

(a) Type of vaccine :

(b) Date of vaccination:

Signed .....

Address .....

.....

Qualifications .....

Date .....

## 9. SCHEDULE - I

[See Rule 58]

### Proforma for Certificate of fitness to travel Equines

This Certificate should be completed and signed by a qualified Veterinary Surgeon.

Date and time of examination : .....

Species of Equines: .....

Number of Equines: .....

Sex.....Age .....

Breed and identification marks, if any.....

Transported from .....To .....Via.....

I hereby certify that I have read rules 57 to 63 in Chapter V of the Transport of Animals Rules, 1978.

1. That, at the request of (consignor) ..... I examined the above mentioned equines not more than 12 hours before their departure.
2. That each equine appeared to be in a fit condition to travel by rail/road/sea and is not showing any signs of any infectious or contagious disease(s) and that it has been vaccinated against any infectious or contagious diseases(s).
3. That the equines were adequately fed and watered for the purpose of the journey.
4. That the equines have been vaccinated.
  - (a) Type of vaccine (s) :
  - (b) Date of vaccination:

Signed.....

Address.....

.....

Qualifications.....

Date .....

## 10. SCHEDULE - J

[See Rule 651]

### Proforma for Certificate of fitness to Travel - Sheep and Goats

This Certificate should be completed and signed by a qualified Veterinary Surgeon

Date and time of examination : .....

Species of Animals : .....

Number of Animals : .....

Sex.....Age .....

I hereby certify that I have read rules 64 to 75 in Chapter VI of the Transport of Animals Rules, T978.

1. That, at the request of (consignor) .....I have examined the above mentioned animals not more than 12 hours before their departure.
2. That each animal appeared-to be in a fit condition to travel by rail/road and is not showing any signs of any infectious or contagious or parasitic disease(s) and that it has been vaccinated against any infectious or contagious or parasitic disease(s),
3. That the animals were adequately fed and watered for the purpose of the journey.
4. That the animals have been vaccinated.

(a) Type of vaccine(s):

(b) Date of vaccination:

Signed .....

Address .....

.....

Qualifications .....

Date .....

## NOTIFICATION

New Delhi, the 26<sup>th</sup> March, 2001

**S.O.-268 (E)** - Whereas the draft Prevention of Cruelty to Animals (Transport of Animals on Foot) Rules, 2000 were published as required by sub-section (1) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), under the notification of the Government of India in the Ministry of Social Justice and Empowerment number S.O. I 163(E) dated the 26<sup>th</sup> December 2000 in the Gazette of India, Extraordinary, Part II, Section 3, Sub Section (ii) dated the 27<sup>th</sup> December, 2000 inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which copies of the Gazette containing the said notification are made available to the public.

And, whereas copies of the said Gazette were made available to the public on the 1<sup>st</sup> January, 2001.

And, whereas no objection or suggestion has been received from the public in respect of the said rules by the Central Government.

Now, therefore, in exercise of the powers conferred by sub-sections (1) and (2) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), the Central Government hereby makes the following rules, namely:

### 1. Short title and commencement :

(1) These rules may be called the **Prevention of Cruelty 5 to Animals (Transport of Animals on Foot) Rules, 2001**

(2) They shall come into force on the date of their publication in the Official Gazette.

### 2. Definitions.- In these rules unless the context otherwise requires

a. "animal" means livestock and includes the following animals namely –

- i. cattle including cow, bulls and bullocks, buffalo bulls and bullocks, cows, buffaloes, Mithuns, yaks and calves.
- ii. equines including horses, ponies, mules and donkeys.
- iii. horse including entires (stallions), goldings, brood mares, colts and fillies
- iv. goat including adult goat, male or female of two years age and above.
- v. ruck including male goat
- vi. kid young goat below one year of age
- vii. nanny female goat
- viii. sheep including adult sheep, male or female of two years age and above
- ix. ewe female sheep
- x. lamb young sheep below one year of age
- xi. ram male sheep
- xii. wether includes male lamb that has been castrated before reaching sexual maturity
- xiii. pig includes adult pig, male or female of one year of age or above
- xiv. piglet includes young pig below one year of age.

b. "veterinary doctor" means a person registered with the Veterinary Council of India established under the Indian Veterinary Council Act, 1984 (52 of 1984)

c. "Schedule" means a schedule appended to these rules.

**3. Application of the rules** - These rules shall apply to transport of animals on foot when the distance from the boundary of village or town or city of the origin of such transport to the last destination is 5 km or more than 5 km.

### 4. Condition of health of animals transported on foot-

(1) Every animal to be transported on foot shall be healthy and in good condition for such transport.

(2) A certificate of a veterinary doctor in respect of each animal to be transported to the effect that such animal is in a fit condition for such transportation and is not suffering from any infectious, contagious or parasitic diseases and that it has been vaccinated against any infectious, contagious or parasitic diseases shall accompany such animal

(3) The certificate under sub rule (1) shall be in the form as specified in the First Schedule.

**5. Certain animals not to transport on foot** - New born animals of which the navel has not completely healed, diseased, blind, emaciated, lame, fatigued, or having given birth during the preceding seventy two hours or likely to give birth during transport shall not be transported on foot. Transport in on-farm social group - Animal shall be transported in their on farm social groups (established at least one week prior to journey)

**6. First aid equipment to accompany animals transported on foot** - The owner of the animals shall provide veterinary first aid equipment to be accompanied with such animals while transported on foot.

**7. Certificate to be carried during transportation** - In case the person transporting the animals on foot is not the owner of the animal then such person shall carry a certificate as specified in the Second Schedule during such transportation.

**8. Watering arrangement during transportation of animals** - The owner of the animals shall make watering arrangement in route during transport of such animals on foot.

**9. Feed and fodder arrangements during transportation of animals**-Sufficient feed and fodder with adequate reserve of such feed and fodder for the animals shall be made available by their owner during their transport on foot.

**10. Prohibition of the use of whip, etc during transportation of animals on foot –**

(1) No person shall use a whip or a stick in order to for the animal to walk or to hasten the pace of their w nor such person shall apply chillies or any oft substance to any part of the body of the animal for this purpose during their transportation on foot.

(2) If any animal needs to be tied during transport on foot, it shall be tied by a rope covered with suitable cushioning such as cloth around its leg and such animal shall not be tied by its nose, all legs or any other part of the body except by its neck.

(3) If more than one animal is to be tied adjacent to one another by a single rope during their transport on foot, the space between any two of such animals shall be minimum two feet and animals so tied shall be of similar physical condition and strength and no more than two such animals shall be tied adjacent to each other by a single rope.

**11. Certain Prohibition on transport of animals on foot**

(1) No person shall transport on foot an animal before sunrise or after sunset.

(2) No animal shall be transported on foot beyond the distance, time, rest interval and temperature specified for such animal in the Table below, namely:-

**TABLE**

Species (Animal)	Maximum distance covered/day/hour	Maximum no. of walking/day of hours (Travelling)	Period of rest (interval)	Temperature range Max. Min
Cattle (Cows)	30 km/day 4 km/hr	8 hours	At every 2 hours for drinking and at every 4 hrs for feeding	12 deg. C to 30 deg.C
Buffaloes	25 km/day 3 km/hr	8 hours	At every 2 hours for drinking and at every 4 hrs for feeding	12 deg. C to 30 deg. C
Cows and Buffaloes Calves	16 km/day 2.5 km/hr	6 hours	At every 1½ hrs for drinking and at every 3 hrs. for feeding	15 deg. C to 25 deg.C
Horses, Ponies, Mules, Donkeys	45 km/day 6 km/hr	8 hours	At every 3 hrs for drinking and at every 6 hrs. for feeding	12 deg. C to 30 deg. C
Young ones (Foal)	25 km/day 4 km/hr	6 hours	At every 2hrs. for drinking and at every 4 hrs. for feeding	15 deg. C to 25 deg. C

**Note :** After being provided with water every animal shall be given a break of 20 minutes before the commencement of the transport of the animal on foot and in case of feeding the break shall be given for one hour before the commencement of the transport of the animal on foot.

(3) No animal shall be made to walk under conditions of heavy rain, thunderstorms or extremely dry or sultry conditions during its transport on foot.

**12. Transportation of animals in certain cases not permitted without shoes** – Animals whose hooves are not provided with shoes (as in the case of pack or draught animals) shall not be transported on foot on hard cement, bitumen-coated or metalled roads, steep gradients or hilly and rocky terrain, irrespective of weather conditions (summer or winter)

**13. Power of Police to require the owner to take animal to nearest Magistrate**

(1) If any police officer above the rank of constable or any other person authorised in this behalf by the Central or state Government or by the Animal Welfare Board of India by the general or special order, has reason to believe that an offence has been or is being committed in respect of an animal in contravention of these rules, he may require the owner or other person in charges of such animal to take the animal to the nearest magistrate.

(2) If the owner or the person in charge of the animals referred to in sub rule (1) refuses to comply with the demands of the police officer under that sub rule, it shall be lawful for such police officer or such other persons to take the animal to the nearest magistrate.

## FIRST SCHEDULE

### Form for Certificate of fitness for transport of animals

(See rule 4 (3))

This Certificate should be completed and signed by a qualified Veterinary Doctor

Date and time of examination

Species

Number of Trucks/Railway Wagons

Number of Cattle

Sex            Age

Identification

**Breed** (giving characteristics) - Area where it is found with status regarding general resistance and heat tolerance

#### **Individual Features of the animal -**

Body colour

Height

Body weight (approx)

Animal length

Breadth (measured between pelvic bones)

Colour of the eyes

Shape of the horns

General conditions (like fleshy, bony projections)

Health Status

History of the animal, feed status whether or not sign of anorexia/diarrhea

1. Record Body Temperature
2. Examine eyes for bulging or protrusion of eyeball, blindness, Corneal opacity & specify
3. Condition of skin, (including signs of dehydration, injuries, anorexia (check for presence of warts on the skin))
4. Ears  
Examine ears - (check for animal body response to hearing, check for any infection, inflammation or secretion (a) excess of wax, blood or any fluid)
5. Examine sub maxillary space for swelling (for any abnormality or pain)
6. Check for status of pregnancy of female animal If yes - which stage 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> stage
7. Examine udder & teats & specify
  - a. Relative size of quarters



- b. Check for signs of swelling/atrophy/fibrous
  - c. in duration on palpation of individual quarter and specify.
  - d. Check teat canal for teat tumour or fibrosis of teat canal and specify.
- 8.
- a) If female - check  
Check for sign of vaginal discharge on examination of the vulva and specify
  - b) In male - check  
Testicles-Size, any sign/abnormalities for monogastric animals  
Penis - injury, abrasions or the sheath, discharges to be recorded
9. Sign of abdominal pain (check for gait or posture of the animal, check for signs of abdominal distention, left flank to be checked for rumen examination (full, empty) tympani/blood
10. Digestive System  
Examine mouth and specify
- (1) Detail out dentition
  - (2) Specify - evidences of
    - tooth damage
    - broken or worn incisors
11. Respiratory system
- a. Record Respiration rate
  - b. Auscultation & specify for signs of dyspnoea, respiratory distress & specify
12. In cows possessing horns check and specify
- a. shape of horns
  - b. number of horn rings
  - c. any difference in the direction
  - d. or appearance of two horns
13. Examine ribs for fracture and specify
14. Examine abdominal wall for presence of ventral or umbilical hernia and specify.
15. Examine limbs and joints for bony enlargements or synovial distentions & specify check for signs of lameness – specify
16. Examine interdigital space for any lesions check and specify
17. Any indications of foot soreness, excessive wear of soles or laminitis
18. Examine circulatory system
- 1. Specify pulse rate
  - 2. Check for presence of oedema dependent portion or ascitis and specify
19. Transported from \_\_\_\_\_ to \_\_\_\_\_ via

I hereby certify that I have read the Prevention of Cruelty to Animals (Transport of animals on Foot) Rules, 2001.

- 1. That, at the request of (Consignor) I examined the above mentioned Cattle in the goods vehicle/railway wagons not more than 12 hours before their departure.
- 2. That each cattle appeared to be in a fit condition to travel by rail/road and is not showing any signs of infectious or contagious or parasitic disease and that it has been vaccinated against rinderpest and any other infections or contagious or parasitic disease(s)
- 3. That the cattle were adequately fed and watered for the purpose of the journey.
- 4. That the cattle have been vaccinated.  
(a) Type of vaccine (b) Date of vaccination :

Signed\_\_\_\_\_

Address\_\_\_\_\_

Date\_\_\_\_\_

\_\_\_\_\_  
Qualification\_\_\_\_\_

**SECOND SCHEDULE**  
**Authorisation certificate**

(See rule 8)

1. Name and age of the owner
2. Father's Name
3. Address of the Owner
4. No. of animals for transport specifying species, age and sex of each animal
5. Name of the person/persons transporting the animals
6. Specify the place of origin and the place of last destination of such animals for transport
7. Attach a copy of the veterinary certificate granted under Rule 8
8. Details of feed, fodder and watering arrangements provided during transport of such animals

I do hereby declare that I am the owner of the aforementioned animals. I have authorized Shri\_\_\_\_\_ S/o\_\_\_\_\_ r/o\_\_\_\_\_ to transport the said animals. I have read and understood the Transport of Animals on Foot Rules, 2001 and undertake that the said Rules have been and would be complied with during transport.

I do hereby state that the above information is true and correct.

To be filled in by the Transporter

I\_\_\_\_\_ S/o\_\_\_\_\_ r/o\_\_\_\_\_ do hereby give my consent transport the aforementioned animals from the aforesaid place of origin to the place of destination.

I have read and understood the Transport of Animals on Foot Rules, 2001 and undertake that the said Rules would be complied with during transport.

I do hereby state that the above information is true and correct.

Sd/-  
(Transporter)  
[F.No.19/1/2000-AWD]  
DHARMENDRA DEO, Jt. Secy.

## NOTIFICATION

New Delhi, the 26<sup>th</sup> March, 2001

**S.O.270(E)** - Whereas the draft Prevention of Cruelty to Animals (Slaughter House) Rules, 2000 were published, as required by sub-section (1) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), under the notification of the Government of India in the Ministry of Social Justice and Empowerment number S.O. 1165 (E) dated the 26th December, 2000 in the Gazette of India, Extraordinary, Part II, Section 3, Sub Section (ii) dated the 27th December, 2000 inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which copies of the Gazette containing the said notification are made available to the public.

And, whereas copies of the said Gazette were made sufficient for livestock subject to veterinary inspection available to the public on the 1st January 2001.

And, whereas no objection or suggestion has been received from the public in respect of the said draft rules by the Central Government.

Now, therefore, in exercise of the powers conferred by sub-sections (1) and (2) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), the Central Government hereby makes the following rules, namely :

### 1. Short title and commencement:

(1) These rules may be called the **Prevention of Cruelty to Animals (Slaughter House) Rules, 2001**

(2) They shall come into force on the date of their publication in the Official Gazette

### 2. Definitions - In these rules unless the context otherwise requires –

- a) "Act" means the Prevention of Cruelty to Animals Act, 1960 (59 of 1960);
- b) "Slaughter" means the killing or destruction of any animal for the purpose of food and includes all the processes and operations performed on all such animals in order to prepare it for being slaughtered.
- c) "Slaughter house" means a slaughter house wherein 10 or more than 10 animals are slaughtered per day and is duly licensed or recognised under a Central, State or Provincial Act or any rules or regulations made thereunder.
- d) "veterinary doctor" means a person registered with the Veterinary Council of India established under the Indian Veterinary Council Act, 1984 (52 of 1984).

### 3. Animals not to be slaughtered except in recognised or licensed houses –

#### 4.

(1) No person shall slaughter any animal within a municipal area except in a slaughter house recognised or licensed by the concerned authority empowered under the law for the time being in force to do so.

(2) No animal which –

- i. is pregnant, or
- ii. has an offspring less than three months old, or
- iii. is under the age of three months or
- iv. has not been certified by a veterinary doctor that it is in a fit condition to be slaughtered.

(3) The municipal or other local authority specified by the Central Government for this purpose shall, having regard to the capacity of the slaughter house and the requirement of the local population of the area in which a slaughter house is situated, determine the maximum number of animals that may be slaughtered in a day.

**(4) Reception area or resting grounds –**

(1) The slaughter house shall have a reception area of adequate size sufficient for livestock subject to veterinary inspection.

(2) The veterinary doctor shall examine thoroughly not more than 12 animals in an hour and not more than 96 animals in a day.

(3) The veterinary doctor after examining the animal shall issue a fitness certificate in the form specified by the Central Government for this purpose.

(4) The reception area of slaughter house shall have proper ramps for direct unloading of animals from vehicles or railway wagons and the said reception area shall have adequate facility sufficient for feeding and watering of animals.

(5) Separate isolation pens shall be provided in slaughter house with watering and feeding arrangements for animals suspected to be suffering from contagious and infectious diseases, and fractious animals, in order to segregate them from the remaining animals.

(6) Adequate holding area shall be provided in slaughter house according to the class of animals to be slaughtered and the said holding area shall have water and feeding facilities.

(7) The resting grounds in slaughter house shall have overhead protective shelters.

(8) Ante-mortem and pen area in slaughter house shall be paved with impervious material such as concrete non-slippery herring-bone type suitable to stand wear and tear by hooves, or brick, and pitched to suitable drainage facilities and the curbs of said impervious material 150 to 300 mm high shall be provided around the borders of livestock pen area, except at the entrances and such pen shall preferably be covered.

**5. Lairages –**

(1) Every animal after it has been subjected to veterinary inspection shall be passed on to a lairage for resting for 24 hours before slaughter.

(2) The lairage of the slaughter house shall be adequate in size sufficient for the number of animals to be [aired;

(3) The space provided in the pens of such lairage shall be not less than 2.8 sq.mt. per large animal and 1.6 sq.mt. per small animal

(4) The animals shall be kept in such lairage separately depending upon their type and class and such lairage shall be so constructed as to protect the animals from heat, cold and rain

(5) The lairage shall have adequate facilities for watering and post-mortem inspection.

**6. Slaughter –**

(1) No animal shall be slaughtered in a slaughter house in sight of other animals

(2) No animal shall be administered any chemical, drug or hormone before slaughter except drug for its treatment for any specific disease or ailment.

(3) The slaughter halls in a slaughter house shall provide separate sections of adequate dimensions sufficient for slaughter of individual animals to ensure that the animal to be slaughtered is not within the sight of other animals.

- (4) Every slaughter house as soon as possible shall provide a separate space for stunning of animals prior to slaughter, bleeding and dressing of the carcasses
- (5) Knocking section in slaughter house may be so planned as to suit the animal and particularly the ritual slaughter; if any and such knocking section and dry landing area associated with it shall be so built that escape from this section can be easily carried out by an operator without allowing the animal to pass the escape barrier.
- (6) A curbed-in bleeding area of adequate size as specified by the Central Government shall be provided in a slaughter house and it shall be so located that the blood could not be splashed on other animals being slaughtered or on the carcass being skinned.
- (7) The blood drain and collection in a slaughter house shall be immediate and proper
- (8) A floor wash point shall be provided in a slaughter house for intermittent cleaning and a hand-wash basin and knife sterilizer shall also be provided for the sticker to sterilize knife and wash his hands periodically.
- (9) Dressing of carcasses in a slaughter house shall not be done on floor and adequate means and tools for dehiding or belting of the animals shall be provided in a slaughter house with means for immediate disposal of hides or skins;
- (10) Hides or skins shall be immediately transported from a slaughter house either in a closed wheelbarrow or by a chute provided with self-closing door and in no case such hides or skins shall be spread on slaughter floor for inspection
- (11) Floor wash point and adequate number of hand wash basins with sterilizer shall be provided in a dressing area of a slaughter house with means for immediate disposal of legs, horns, hooves and other parts of animals through spring load floor chutes or sidewall doors or closed wheelbarrows and in case wheelbarrows or trucks are used in a slaughter house, care shall be taken that no point wheelbarrow or truck has to ply under the dressing rails and a clear passage is provided for movement of the trucks.
- (12) Adequate space and suitable and properly located facilities shall be provided sufficient for inspection of the viscera of the various types of animals slaughtered in a slaughter house and it shall have adequate facilities for hand washing, tool sterilisation and floor washing and contrivances for immediate separation and disposal of condemned material.
- (13) Adequate arrangements shall be made in a slaughter house by its owner for identification, inspection and correlation of carcass, viscera and head.
- (14) In a slaughter house, a curbed and separately drained area or an area of sufficient size, sloped 33 mm per metre to a floor drain, where the carcasses may be washed with a jet of water, shall be provided by the owner of such slaughter house.

**7. Slaughter house building** - The different construction of a slaughter house shall be built and maintained by its owner in the manner as specified below, namely :

- a) Plant Building - (i) Materials used shall be impervious, easily cleansable, and resistant to wear and corrosion. (ii) Materials such as wood, plaster board, and porous acoustic-type boards, which are absorbent and difficult to keep clean shall not be used.
- b) Floors - The floors shall be non-absorbent and nonslippery with rough finish and shall have suitable gradient for drainage.
- c) Coves - Coves with radii sufficient to promote sanitation shall be installed at the juncture of floors and wall, in all rooms and which shall not be less than 100 mm
- d) Interior Walls - (i) interior walls shall be smooth and flat and constructed of impervious materials such a glazed brick, glazed tile, smooth surface Portland cement plaster, or other non-toxic, non-absorber material applied to a suitable base. (ii) Walls shall b provided with suitable sanitary type bumpers to prevent damage by hand trucks, carcass

shunks, and the like. (iii) The interior walls shall have washable surface up to the height of 2 meters from the floor so that the splashes may be washed and disinfected.

- e) Ceilings - (i) Ceilings shall be of the height of 5 mts or more in workrooms and so far as structure conditions permit, ceilings shall be smooth and flat (ii) Ceilings shall be constructed of Portland cement plaster, large size cement asbestos boards with joint sealed with a flexible sealing compound, or other acceptable impervious material and finished so as to minimise condensation, mould development, flaking and accumulation of dirt. (iii) The walls above glazed type portion and ceiling shall be painted with water resistant paint to maintain them clean.
- f) Window Ledges - Window ledges shall be sloped 45 degrees to promote sanitation and to avoid damage to glass in windows from impact of hand trucks and similar equipment, the windowsills shall be 1200 mm above the floor level with proper ventilation through mechanical venting or through working vents shall be provided in the roof structure.
- g) Doorways and Doors - (i) Doorways through which product is transferred on rails or in hand trucks shall be at least 1500 mm high and shall be at least 1500 mm wide. (ii) Doors shall either be of rust-resistant metal construction throughout, or if made with rust resistant metal having tight softwood, they shall be clad on both sides with soldered or welded seams. (iii) Doorjamb shall be clad with rust-resistant metal securely affixed so as to provide no crevices for dirt or vermin and the juncture at which the door joins the walls shall be effectively sealed with a flexible sealing compound.
- h) Screens and Insect control - All windows, doorways and other openings that may admit flies shall be equipped with effective insect and rodent screens and 'Fly chaser' fans and ducts or air curtains shall be provided over doorways in outside wall of food handling areas that are used for dispatch or receiving.
- i) Rodent-Proofing-Except in the case of solid masonry, walls constructed of glazed tile, glazed brick, and the like, expanded metal or wire mesh not exceeding 12.5 mm mesh, shall be embedded in walls and floor at their junction and such mesh shall extend vertically and horizontally to a sufficient distance to exclude the entrance of rats and other rodents.
- j) Vehicular areas for Trucks - (i) Concrete paved areas, properly drained and extending at least 6 metres from building, loading docks or livestock platforms shall be provided at places where vehicles are loaded or unloaded. (ii) Pressure washing jets and disinfection facilities for trucks carrying animals shall also be provided at such places.
- k) Drainage - (i) All parts of floors where wet operations are conducted shall be well drained and as far as possible, one drainage inlet shall be provided for each 37 metre square of floor space (ii) A slope of about 20 mm per metre to drainage inlets shall be provided for usual conditions and it shall be ensured that the floor slopes uniformly to drains with no low spots, which collect liquid. (iii) Floor drains shall not be provided in freezer rooms or dry storage areas and when floor drains are installed in rooms where the water seal in traps is likely to evaporate without replenishment, they shall be provided with suitable removable metal screw plugs.
- l) Traps and vents on drainage lines - (i) Each floor drain, including blood drains, shall be equipped with a deep seal trap (P-, U-, or S-shape) (ii) Drainage lines shall be properly vented to the outside air and be equipped with effective rodent screens.
- m) Sanitary drainage lines - Drainage line from toilet pans and urinals shall not be connected with other drainage lines within the plant and shall not discharge into a grease catch basin and such lines shall be installed so that if leakage develops, it shall not affect the product or the equipment.
- n) Lighting and ventilation - (i) Unrefrigerated work rooms shall be provided with adequate direct natural light and ventilation or ample artificial light and ventilation by mechanical means. (ii) Uncoloured glass having a high transmissibility of light shall be used in skylights and windows (iii) The glass area shall be approximately one-fourth of the floor

area of a workroom and such ratio shall be increased where there are obstructions, such as adjacent buildings, overhead catwalks, and hoists, which interfere with the admittance of direct natural light. (iv) Distributed artificial lighting of much quality and at such distances as may be specified by the Central Government shall be provided at all places where adequate natural light is not available or is insufficient.

- o) Every abattoir shall be provided with distributed artificial light of an overall intensity of not less than 200 lux at the distances as may be specified by the Central Government throughout the slaughter hall and workrooms and at places where meat inspection is carried out, the overall intensity of artificial light shall be not less than 500 lux.
- p) every abattoir shall be provided with suitable and sufficient means of ventilation to the outside air and the construction of the slaughter hall shall be so arranged that the dressed carcasses are not exposed to direct sunlight;
- q) a sufficient, safe, potable and constant supply of fresh water shall be available at adequate pressure through the premises.
- r) the pressure for the general purpose of floor washing may preferably be 200 to 330 kPa for through floor cleaning
- s) for thorough and efficient washing of carcasses, a higher pressure between 1000 kPa to 1700 kPa shall be maintained.
- t) floor washing point shall be provided preferably for minimum 37 meter square on slaughter floor and working departments
  - a. a constant supply of clean hot water shall be available in the slaughter hall and workrooms during working hours and the hotwater required for frequent sterilising of equipment shall not be less than 82 degree celsius
  - b. where necessary for sanitary maintenance, equipment shall be constructed and installed so as to be completely self-draining.
  - c. the following materials shall not be used in an abattoir, namely
    - i. copper and its alloys in equipment used for edible products.
    - ii. cadmium in any form in equipment handling edible products
    - iii. equipment with painted surface in product zone
    - iv. enamel containers or equipment is not desirable and
    - v. lead
  - x. all permanently mounted equipment shall either be installed sufficiently away from walls (minimum 300 mm) to provide access for cleaning and inspection.
  - y. all permanently mounted equipment shall either be installed sufficiently above the floor (minimum 300 mm) to provide access for cleaning and inspection or be completely sealed (watertight) to the floor area.

#### **8. Engagement in slaughter house –**

- (1) No owner or occupier of a slaughter house shall engage a person for slaughtering animals unless he possesses a valid license or authorisation issued by the municipal or other local authority.
- (2) No person who has not attained the age of 18 years shall be employed in any manner in a slaughter house.
- (3) No person who is suffering from any communicable or infectious disease shall be permitted to slaughter an animal.

#### **9. Inspection of slaughter house –**

- (1) The Animal Welfare Board of India or any person or Animal Welfare Organisation authorised by it may inspect any slaughter house without notice to its owner or the

person incharge of it at any time during the working hours to ensure that the provisions of these rules are being complied with.

- (2) The person or the Animal Welfare Organisation authorised under sub rule (1) shall after inspection send its report to Animal Welfare Board of India as well as to the municipal or local authority for appropriate action including initiation of legal proceedings if any, in the event of violation of any provisions of these rules.

(F.No.19/1/2000-AWD)

DHARMENDRA DEO, A. Secy.





## Animal Welfare Board of India

(Ministry of Environment, Forest and Climate Change, Govt. of India)

13/1, Third Seaward Road, Valmiki Nagar, Thiruvanniyur,

Chennai - 600 041 PostBoxNo.8672 Email: [awbi@md3.vsnl.net.in](mailto:awbi@md3.vsnl.net.in),

[animalwelfareboard@gmail.com](mailto:animalwelfareboard@gmail.com) website:[www.awbi.org](http://www.awbi.org),

Phone:044-24571025, 24571024, Fax: 044-24571016.

**M. RAVIKUMAR, I.F.S**

**Secretary**

No.9-1/2016-17/PCA

Dated 17<sup>th</sup> October, 2016

To  
The Director/Commissioner,  
Municipal Administration of all  
States/UTs  
(as per list enclosed)

Sir,

Sub: Forwarding the revised proforma Ante and Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4(3) of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 - reg.

Ref.: This office letter of even number dated 26<sup>th</sup> September, 2016

With reference to the above cited subject, I am directed to forward herewith the revised proforma for Ante and Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4(3) of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 for your kind information and further necessary action. It is requested that this format may be mandated for all the slaughter houses immediately.

A copy of the action taken report may kindly be forwarded to the Board for information and record.

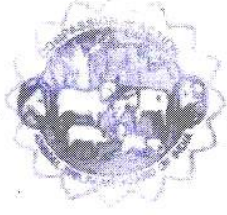
Yours faithfully,

  
(M. Ravikumar)  
Secretary

Encl. as above.

Copy to: The Chief Secretary of all States/UTs for information and necessary action.

2) The Director, Animal Husbandry Department of all States/UTs for information and necessary action.



**Animal Welfare Board of India**  
 (Ministry of Environment, Forest and Climate Change, Govt. of India)  
 13/1, Third Seaward Road, Valmiki Nagar, Thiruvanmiyur,  
 Chennai - 600 041 PostBoxNo.8672 Email: [awbi@md3.vsnl.net.in](mailto:awbi@md3.vsnl.net.in),  
[animalwelfareboard@gmail.com](mailto:animalwelfareboard@gmail.com) website:[www.awbi.org](http://www.awbi.org),  
 Phone:044-24571025, 24571024, Fax: 044-24571016.

**M. RAVIKUMAR, I.F.S**  
**Secretary**  
 No.9-1/2016-17/PCA

Dated 17<sup>th</sup> October, 2016

The Chief Executive Officer,  
 Food Safety and Standards Authority of India  
 FDA Bhawan near Bal Bhavan,  
 Kotla Road, New Delhi - 110002 India.  
 EPABX : 011-23236975  
 Telefax: 011-23220994  
 E-mail: [ceo@fssai.gov.in](mailto:ceo@fssai.gov.in)

Sir,

Sub: Forwarding the revised proforma Ante and Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4(3) of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 - reg.

Ref.: This office letter of even number dated 26<sup>th</sup> September, 2016

With reference to the above cited subject, I am directed to forward herewith the revised proforma for Ante and Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before and after slaughter of animals as per Rule 4(3) of the Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 for your kind information and further necessary action.

Yours faithfully,

  
 (M. Ravikumar)  
 Secretary

Encl. as above.

File No. 1 (55)2015/Stet- Central Licensing/FSSAI  
**Food Safety and Standards Authority of India**  
 (Regulatory Compliance Division)  
 FDA Bhawan, Kotla Road, New Delhi - 110002

Dated, the 7<sup>th</sup> November, 2016

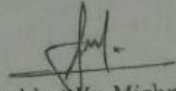
**Subject: Proforma for Ante & Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before & after slaughter of animals as per rule 4(3) of the Prevention of Cruelty to animals (Slaughter House) Rules, 2001 - reg.**

I am directed to refer to DO letter dated 26<sup>th</sup> October, 2016 received from Dr. S. Chinny Krishna, Vice Chairman, Animal Welfare Board of India enclosing Proforma for Ante & Post Mortem fitness certificate to be issued by the Veterinary Doctor after examining the animal before & after slaughter of animals as per rule 4(3) of the Prevention of Cruelty to animals (Slaughter House) Rules, 2001.

2. Provision for ante- post mortem inspection have been specified in Schedule IV Part IV of the FSS (Licensing & Registration of Food Businesses) regulation 2011 under the Specific Hygienic and Sanitary Practices to be followed by Food Business Operators engaged in manufacture, processing, storing and selling of Meat and Meat Products.

3. In view of the above, it is requested to take note of the proforma of Ante and Post Mortem during inspection of slaughter houses. It is further requested that the proforma shall also be shared with the State Slaughter House Monitoring Committee and ensure compliance of the same during inspections.

Encl: as above

  
 (Prabhat Kr. Mishra)  
 Assistant Director (RCD)  
 Tel: 011-23237435

To:

1. All Central Licensing Authorities
2. Commissioners of Food Safety of all States/UTs

Copy to:

Dr. S. Chinny Krishna, Vice Chairman, Animal Welfare Board of India, Post Box no. 8672, 13/1, Thrid Seaward Road, Valmiki nagar, Thiruvanniyur, Chennai-600041- for information please.

**Proposed Fit for Slaughter Certificate under Rule 4(3) of Slaughter House Rule 2001**  
**(One Certificate for maximum 12 Animals/ hour)**

Name of the owner/ Incharge of the Animal :

Address of the owner/ Incharge of the Animal :

Ante-Mortem Details :

Details	Species	Breed	Sex	Body Color	Pregnancy	Approx Age	Gait	Posture	Body Temp.	Pulse Rate	Appetite	Eyes	Nostrils	Muzzle	Opinion
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															

**It is certified that:**

1. Animal No..... is/ are healthy & fit for slaughter & Animal No..... is/ are diseased/ pregnant/ under aged / had recent parturition in last three months thus not fit for slaughter.

**Name/ Qualification/ VCI Registration No./ Designation/ Address/ Seal of Veterinary**

**Post Slaughter Details:**

<b>Details</b>	<b>Species</b>	<b>Breed</b>	<b>Sex</b>	<b>Body Color</b>	<b>Approx Age</b>	<b>Visible Mucous membranes</b>	<b>Thoracic Cavity</b>	<b>Abdominal cavity</b>	<b>Pelvic cavity</b>	<b>Specimen collection if any</b>	<b>Special observation if any</b>	<b>Opinion</b>
<b>Animal No.</b>												
<b>1.</b>												
<b>2.</b>												
<b>3.</b>												
<b>4.</b>												
<b>5.</b>												
<b>6.</b>												
<b>7.</b>												
<b>8.</b>												
<b>9.</b>												
<b>10.</b>												
<b>11.</b>												
<b>12.</b>												

**It is certified that:**

1. While postmortem of the Animal No..... was/ were found free from any lesions/ signs of zoonotic disease & the flesh is fit for human consumption & Animal No..... was/ were found having lesions of infection of zoonotic disease of public health importance thus whole carcass was/ were discarded/ parts of the carcass was/ were discarded & only the portion fit for human consumption was allowed to be taken out of the slaughter house.
2. Destruction of condemned carcasses, organs or parts thereof had been carried out under direct supervision of undersigned (as per Part-IV of Regulation 2011 framed under Food Safety & Standards Act, 2006).
3. None of the above animals were slaughtered without proper stunning.
4. Stunning system is well in place & effectively functional.
5. None of the above animals were slaughtered in the sight of other animal/ animals.

6. None of the above animals were slaughtered in the sight of public, particularly children.
7. None of the above animals were administered any chemical, drug or hormone before slaughter except drug for its treatment for any specific disease or ailment.
8. In case of a mechanized slaughterhouse, the animals were hung up on the conveyor only after a fixed dilated pupil confirming death has been ensured. The animals, until confirmation of death, were bled on a flat surface/floor.

**Name/ Qualification/ VCI Registration No./ Designation/ Address/ Seal of Veterinary Doctor**

1. Slaughter House has adequate arrangement to ensure that none of the above animals were slaughtered in the sight of other animal/ animals or in the sight of public.
2. Slaughter House has adequate arrangement of pre slaughter lairages, housing, feeding & humane handling of the animals.
3. Slaughter House has adequate arrangement for hygiene, cleanliness, safety of public health.
4. Slaughter House is free from rodents, flies, dogs, cats or any other source of contaminants/ vectors of any disease.
5. All the butchers & their supporting staff permitted to perform in the Slaughter House have undergone health check up on dated..... & were found healthy fit to be permitted to work in the Slaughter House.
6. Slaughter House has proper arrangement for drainage & disposal of waste/ garbage as per the norms of the CPCB guidelines.
7. Slaughter House has been registered/ licensed by appropriate authority under Food Safety & Standards Act, 2006 (Part-IV of Regulation2011).

**Name/ Designation/ Address/ Seal of the Controlling Authority of Veterinary Doctor**

\_\_\_\_\_ :- Whereas the draft Prevention of Cruelty to Animal (Regulation of Livestock Markets) Rules, 2015 were published, as required by sub-section (1) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), under the notification of the Government of India in the Ministry of Environment and Forest number S.O. \_\_\_\_\_dated the \_\_\_\_\_ in the Gazette of India, Extraordinary, Part \_\_\_\_, Section \_\_\_\_, Sub Section \_\_\_\_ dated the \_\_\_\_\_ inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which copies of the Gazette containing the said notification are made available to the public;

And, whereas copies of the said Gazette were made available to the public on the \_\_\_\_\_;

And, whereas no objection or suggestion has been received from the public in respect of the said draft rules by the Central Government;

*Or*

And whereas the objections / suggestions received from the public have been incorporated in the rules

Now, therefore, in exercise of the powers conferred by sub-sections (1) and (2) of section 38 of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960), the Central Government hereby makes the following rules, namely:-

**1. Short title, extent and commencement.**

- a) These rules may be called the Prevention of Cruelty to Animals Rules (Regulation of Livestock Markets), 2015.
- b) These shall come into force on the date of their publication in the Official Gazette

**2. Definitions.**

- a) In the rules, unless the context otherwise requires, -
  - i. "Act" means the Prevention of Cruelty to Animals Act, 1960 (59 of 1960).
  - ii. "Animals" means cattle, sheep, goats, horse, ponies, donkey, mules and all other ruminating animals, pigs and poultry;
  - iii. "Board" means the Animal Welfare Board of India established under Section 4, and as reconstituted from time to time under Section 5A of the Act.
  - iv. "State Board" means the State Animal Welfare Board
  - v. "Local Authority" means a municipal committee, municipal corporation or municipal board, in an urban area ; Cantonment Board in an army area ; District Panchayat or Block Development Committee in a rural area.

- vi. "Prescribed Authority" means the Board or such other authority or an officer authorised by the Board;
- vii. "Society for Prevention of Cruelty to Animals (SPCA)" means a SPCA recognized under the PCA (SPCA) Rules 2001.
- viii. "Calf" means a bovine animal under the age of six months;
- ix. "Cattle" means a bovine animal including bulls, cows, buffalos, steers, heifers and calves and shall include camels.
- x. "Inspector" means a person appointed to be an inspector for the purposes of the Act by the board, state board or by a local authority and, when used in relation to a person appointed by the animal husbandry department, includes a veterinary inspector;
- xi. "Fractious animal" is an animal that is likely to cause injury to other animals.
- xii. "Market" means a market place or sale-yard or any other premises or place to which animals are brought from other places and exposed for sale and includes any lairage adjoining a market or a slaughterhouse and used in connection with it and any place adjoining a market used as a parking area by visitors to the market for parking vehicles and includes animal fairs and cattle pound where are offered or displayed for sale;
- xiii. "Animal Market Committee" means the committee formed under these rules which is responsible for the upkeep of a market or for the provision of fixed facilities there;
- xiv. "Poultry" means live birds of domestic fowls, turkeys, geese, ducks, guinea-fowls, pheasants, partridges and quails;
- xv. "Unfit" includes infirm, diseased, ill, injured and fatigued;
- xvi. "Vehicle" means any vehicle (including a trailer of any description and the detachable body of a vehicle) constructed or adapted for use on a road;
- xvii. "Veterinary inspector" means a registered veterinary practitioner appointed as veterinary inspector by the Local Authority.
- xviii. "Cattle smuggling" means out-of State transport of cattle without permission as per legal provisions regarding protection of cattle.

### **3. Establishment of the District Animal Market Monitoring Committee**

- a) The District Collector/Magistrate in consultation with board and state board shall constitute Animal Market Monitoring Committee under his leadership for regulation of animal markets in the district.
- b) The constitution of the committee shall be as follows:
  - i. District Collector/Magistrate Chairman of the Committee
  - ii. Chief Veterinary Officer/ Animal Husbandry district head – Member Secretary
  - iii. Jurisdictional Divisional Forest Officer
  - iv. Jurisdictional Superintendent of Police



- v. Representative of the SPCA
  - vi. 2 representatives from Animal Welfare Organization recognized by the board
- c) Minimum quorum for the meeting shall be 4 members.
  - d) A person who has been charged or whose family members or relatives who have been charged under the act or any cattle preservation act made by the state government shall be prohibited from being the member of the committee and shall not be involved in the regulation of the cattle market.

#### 4. **Establishment of the Animal Market Committee**

- a) The local authority in consultation with board or state board shall constitute Animal Market Committee under the leadership of Chairman of the local authority for the management of animal markets.
- b) The constitution of the committee shall be as follows:
  - vii. Chairman of local body      Chairman of the Committee
  - viii. Chief Municipal officer/Chief executive officer of local authority  
Member Secretary.
  - ix. Jurisdictional Tahasildar
  - x. Jurisdictional Forest Range Officer
  - xi. Jurisdictional Veterinary Officer
  - xii. Jurisdictional Police Inspector
  - xiii. Representative of the SPCA
  - xiv. 2 representatives from Animal Welfare Organization recognized by the board
- c) Minimum quorum for the meeting shall be 8 members.
- d) A person who has been charged or whose family members or relatives who have been charged under the act or any cattle preservation acts made by the state government shall be prohibited from being the member of the committee and shall not be involved in the management of the cattle market.
- e) The Member Secretary will bear the responsibility of ensuring compliance of these rules.
- f) The Animal Market Committee shall have control of the land where such fairs are held.
- g) The Animal Market Committee shall ensure that the land where such fairs are held are not low lying areas.
- h) The Animal Market Committee shall display conspicuously the relevant extracts of the Rules for the owners and the purchasers.

#### 5. **Registration of Existing Markets:**

- a. The local authority shall make a list of markets functional prior to the notification of these rules
- b. The local authority shall constitute an Animal Market Committee for each of this market.

- c. Every market functional prior to the notification of these rules shall within 3 months from the date of notification of these rules register themselves with the District Animal Market Monitoring Committee
  - d. The Animal Market Committee shall apply for registration with the District Animal Market Monitoring Committee.
  - e. The District Animal Market Monitoring Committee before granting registration shall ensure that all requirements stipulated in the rule are fulfilled in the market.
  - f. Without prejudice to the generality of paragraph (b) above it shall be the duty of District Animal Market Monitoring Committee to ensure that the animal market adheres to the BIS Standards and has adequate: -
    - i. Housing
    - ii. Feeding & water troughs
    - iii. Lighting
    - iv. Ramps
    - v. Enclosures for sick and infirm animals
    - vi. Veterinary facility
    - vii. Feed storage area
    - viii. Water supply
    - ix. Toilets
    - x. Trevis
    - xi. Fire-fighting equipment
    - xii. Drainage
  - g. The District Animal Market Monitoring Committee will determine the maximum holding capacity of the market and that shall be displayed in a prominent place.
  - h. The District Animal Market Monitoring Committee, while granting registration, may impose conditions as it deems fit to implement these rules.
  - i. If the District Animal Market Monitoring Committee rejects the application then the market shall cease to exist from the date of rejection.
  - j. The District Animal Market Monitoring Committee shall dispose the application for registration within one month from the date of application.
  - k. The District Animal Market Monitoring Committee shall ensure that all funds and earnings of animal markets are utilized for the welfare of animals, i.e., for upkeep of Gaushalas, SPCA and animal welfare organizations.
- 6. Establishment of New Markets:**
- a) When local authority or any other authority deems fit and necessary to establish an animal market within their jurisdiction, they shall as per BIS Standards, identify a suitable location and develop a blueprint of the market.
  - b) The local authority shall constitute the Animal Market Committee and apply to the District Animal Market Monitoring Committee before construction.
  - c) The District Animal Market Monitoring Committee may provide an approval to the blueprint or seek further modification or reject the proposal.
  - d) The District Animal Market Monitoring Committee before granting final

registration, before commissioning of the market post construction, shall ensure that all requirements stipulated in the rule are fulfilled in the market.

- e) Without prejudice to the generality of paragraph (b) above, it shall be the duty of District Animal Market Monitoring Committee to ensure that the animal market has adequate: -
- i. Housing
  - ii. Feeding & water troughs accessible to all animals
  - iii. Lighting
  - iv. Ramps
  - v. Enclosures for sick and infirm animals
  - vi. Veterinary facility
  - vii. Feed storage area
  - viii. Water supply
  - ix. Toilets
  - x. Trevis
  - xi. Fire-fighting equipment
  - xii. Drainage
- f) The District Animal Market Monitoring Committee will determine the maximum holding capacity of the market and that shall be displayed in a prominent place.
- g) The District Animal Market Monitoring Committee, while granting registration, may impose conditions as it deems fit to implement these rules.

**7. Additional Precaution to be taken with markets in Border area:**

- a) District Animal Market Monitoring Committee shall take additional steps to ensure that no animal market is organized in a place which is situated within 30 kilometers from any state border; or which is situated within 100 kilometers from any international border.

**8. Powers of the Board to issue directions etc.**

- a. The Board or State Board may from time to time give such directions to the local authorities and local animal husbandry department as it may deem fit for furtherance of *sententia legis* and to facilitate compliance with these rules.
- b. District Animal Market Monitoring Committee and Animal Market Committee shall provide all records and information pertaining to the functioning of market to the Board or State Board as and when it is requested. The Board or State Board may call for additional records and information as it deems fit.

**9. Powers of the Board to authorize inspection and seizure:** For the purpose of ensuring compliance, the Board, State Board, local authority, District Animal Market Monitoring Committee or state animal husbandry department may authorize any of its officers in writing to inspect any market, and report to the Board, local authority, Animal Market Monitoring Committee, state animal husbandry department as the case may be, the result of such inspection, and any officer or person so authorized may –

- a) Enter at any time considered reasonable by him and inspect market; and
- b) require any person to produce any record kept by him with respect to the market.

- c) seize any animal if there is reason to believe that the provisions of the Act, are not being followed or that the animals are being treated cruelly. The animals so seized shall be kept in the custody of the local SPCA or an animal welfare organization. The expenditure incurred on keeping such animals at local SPCA, Animal Welfare Organization shall be borne by the Animal Market Committee. Species-wise rates on per day basis may be fixed by the state board from time to time.

#### **10. Veterinarians at Markets**

- a) Every market shall have adequate number of veterinary and veterinary assistants inspectors appointed by District Animal Market Monitoring Committee.
- b) The veterinary inspector must supervise the unloading and arrival of animals at market and inspect all animals as soon as practical after arrival and deal appropriately with any that are ill, sick or injured.
- c) The veterinary inspector must also make the required checks of the load against the transport documentation provided.
- d) The veterinary inspector must treat or supervise the treatment of any animals that, on arrival, are ill, sick or injured in the designated isolation facilities.
- e) The veterinary inspector must monitor the handling of all animals in the market and ensure that animals are handled appropriately at all times.
- f) The veterinary inspector must supervise the loading of animals from the market and ensure that all animals are fit for the intended journey and provide the necessary veterinary certification.
- g) The veterinary inspector shall maintain records of all animals inspected, treated, number of transport permit issued, number of animals found unfit for transport and what action was initiated when an animal was found unfit for transport.

#### **11. Unfit animals and animals likely to give birth**

- a) No person shall permit an unfit animal to be for sale in a market.
- b) No person shall permit an animal to be offered, displayed for sale in a market if it is likely to give birth while it is there or during its transportation.

#### **12. Protection of animals from injury or unnecessary suffering**

- a) No person shall cause or permit any injury or unnecessary suffering to an animal in a market.
- b) Without prejudice to the generality of paragraph (a) above, it shall be the duty of any person in charge of an animal in a market to ensure that the animal is not, or is not likely to be, caused injury or unnecessary suffering by reason of—
  - i. the animal being exposed to the weather;
  - ii. inadequate ventilation being available for the animal;
  - iii. the animal being hit or prodded by any instrument or other thing; or any other cause.
  - iv. being tethered on a short rope for a unreasonable period.
  - v. thirst or starvation

- vi. introduce foreign objects into the genitals or anus
- vii. holding milk for more than 12 hours
- viii. pumping milk back into the udder

### 13. Handling and tying of animals

- a) no person shall handle an animal in a market by—
  - i. lifting it off the ground , other than poultry for weighing propose
  - ii. dragging it along the ground; or
  - iii. suspending it clear of the ground,

by the head, neck, ears, horns, legs, feet, tail, fleece or wing.

- b) below, no person shall—
  - i. tie up or muzzle any calf; or
  - ii. tie any poultry by the neck, leg or wing or carry poultry upside down

### 14. Control of animals

- a) No person shall use excessive force to control any animals in a market, including but not limited to breaking of tail, hitting with stick, goad or other instrument, pinch, prick, crush, hit external genitalia with any instrument or hands, rubbing chilly or any other substance in the eyes, nose rings.
- b) No person shall drive or lead any animal over any ground or floor, the nature or condition of which is likely to cause the animal to slip or fall.

### 15. Penning and caging of animals

- a) It shall be the duty of Member Secretary of Animal Market Committeeto ensure that no animal is kept in a pen, cage or other enclosures, which is unsuitable for the size and species of that animal.
- b) Without prejudice to the generality of paragraph above it shall be the duty of a Member Secretary of Animal Market Committeeto ensure that—
  - i. any pen in which any calves or pigs are kept is of sufficient size to enable all the calves or pigs kept in it to lie down at the same time;
  - ii. any cage or enclosure in which any poultry are kept—
    - a. is of such a design as to enable the poultry to stand in their natural position
    - b. has a door which is of sufficient size to enable the poultry to be placed in, and removed from, the cage or enclosure without being caused any injury or unnecessary suffering.
- c) Without prejudice to the generality of paragraph above, it shall be the duty of Member Secretary of Animal Market Committee to ensure that, within the market—
- d) when animals are penned—
  - i. those of one species are kept in separate pens from animals of another species; and
  - ii. they are distributed within the pens, having regard to differences in age and size, so as to avoid unnecessary suffering to them;

- iii. any fractious animal is kept in a separate pen, cage or enclosures from other animals;
  - iv. animals are not kept in pens, cages or enclosures which are overcrowded;
  - v. pregnant animals shall be kept separately.
- e) adequate provision is made to prevent animals—
- i. escaping from the market, and
  - ii. coming into contact with any aggressive or fractious animals in the market;
- f) a bull/oxen is not kept in the same undivided pen in the market as any other animal except that—
- i. bulls/oxen may be kept together in the same undivided pen if they are all secured by the head or neck, and
  - ii. bulls/oxen which have been reared together may be kept together in the same undivided pen (without being secured by the head or neck);
- g) a boar over the age of 6 months is not kept in the same undivided pen as any other animal; and
- h) animals with young at foot are not kept in the same undivided pen as any other animals, except where they originate from the same group of animals and are of a mutually acceptable disposition.

#### **16. Feeding and watering of animals**

- a) It shall be the duty of the person in charge of an animal to ensure that the animal is provided with an adequate quantity of wholesome water as often as is necessary to prevent it suffering from thirst.
- b) The Animal Market Committee shall ensure that animal feed is sold at a market at a prescribed price and water to be provided for free of cost to all animals.
- c) It shall be the duty of the owner (or his duly authorised agent) of an animal which is kept in a market from one day to the next to ensure that the animal is provided with an adequate quantity of suitable food and with an adequate quantity of wholesome water—
- i. before 9 p.m. on the day on which the animal arrives at the market or, if it arrives at the market after 9 p.m., immediately on its arrival there; and
  - ii. thereafter at least once in each complete period of 12 hours (calculated from 9 p.m. on the day of its arrival at the market) during which the animal is kept in the market.

#### **17. Provision of lighting and bedding**

- a) It shall be the duty of the Member Secretary of Animal Market Committee or other person for the time being in charge of an animal to ensure that adequate lighting is available to enable animals kept in the market to be inspected and to be fed and watered;
- b) It shall be the duty of Member Secretary of Animal Market Committee or other person for the time being in charge of an animal to ensure that an adequate supply of suitable bedding is provided for animals.

#### **18. Covered accommodation**

It shall be the duty of the Member Secretary of Animal Market Committee to provide

covered accommodation in the market for animals.

**19. Restriction on entry of animals not vaccinated against common contagious diseases:**

- a) The animal must be vaccinated at least one week before bringing to the market against the following contagious diseases or as notified by the Animal Husbandry department from time to time:
  - i) Cattle and Buffalo: foot and mouth diseases, Hemorrhagic Septicemia
  - ii) Sheep/Goat: Enterotoxaemia, sheep fox
  - iii) Pigs: Swine Flu
- b) A certificate of such vaccination shall be obtained from the registered veterinary practitioner and must be produced before entry of the animals to the market.

**20. Restrictions on the sale of cattle :** The Member Secretary of Animal Market Committee shall ensure that

- a) No person shall bring to a market a calf that is less than 6 months old
- b) Every cattle shall be milked before it is brought to the Market and before transportation
- c) No person shall bring a cattle to a market unless upon arrival he has furnished a written declaration signed by the owner of the cattle or his duly authorised agent—
  - i. stating the name and address of the owner of the cattle , with a copy of the photo identification proof;
  - ii. giving details of the identification of the cattle ;
  - iii. stating that the cattle has not been brought to market for sale for slaughter
- d) Every declaration furnished to the Animal Market Committee above shall be retained by them for a period of 6 months from the date on which it is furnished to them and the Animal Market Committee shall, on demand made by an inspector at any reasonable time during that period, produce such declaration and allow a copy of it or an extract from it to be taken.
- e) Where a cattle has been sold and before its removal from the market, the Animal Market Committee shall—
  - i. Take an undertaking that the cattle are bought for agriculture purposes and not for slaughter.
  - ii. keep a record of name and address of that purchaser and procure a identity proof of the buyer.
  - iii. Verify that the purchaser is an agriculturist by seeing any revenue document.
  - iv. The purchaser of the cattle shall give a declaration that he shall not sell the animals up to 6 months from the date of purchase, in case of death of the animal he would get a post mortem from a government veterinary hospital and shall abide by the rules for transport framed under this act or any other legislation.

- v. retain such record for a period of 6 months from the date of sale.
  - vi. produce such record to an inspector on demand being made by him at any reasonable time during that period and allow a copy of it or an extract from it to be taken.
- f) The purchaser of the cattle shall –
- i. Not sell the animal for slaughter purpose.
  - ii. Shall follow the state cattle protection/ preservation acts.
  - iii. Shall not sacrifice the animal for any religious purpose.
  - iv. Shall not sell the cattle to a person outside the state without permission as per the state cattle protection/ preservation acts. The cattle shall be presumed to be smuggled if the animal purchaser fails to show the physical presence of the animal during the physical inspection of animal in his custody or in the custody of another farmer in the state.
- g) Where a cattle has been sold and before its removal from the market, the proof of sale shall be issued in five copies, out of those first be handed over to purchaser, second copy to seller, third copy to tehsil office of the residence of purchaser, fourth copy to the Chief Veterinary Officer Office of District of Purchaser & last copy be kept intact in the record by the Animal Market Committee.

#### 21. Additional duties of market authorities

It shall be the duty of Animal Market Committee to ensure that—

- a) all passageways in the market and all pens in which animals are kept—
  - i. are constructed and maintained in a manner which is not likely to cause injury or unnecessary suffering to animals; and
  - ii. are free from any sharp edges or projections with which animals may come into contact;
  - iii. have an adequate supply of wholesome water made available for animals;
  - iv. have adequate facilities in the form of troughs, buckets, drinking bowls or other drinking devices made available for watering animals; and
- b) any & all covered accommodation in the market in which animals are kept shall be adequately ventilated.

#### 22. Accommodation for unfit animals

It shall be the duty of the Animal Market Committee to ensure that—

- a) suitable pens are available in which any unfit animals may be separated from other animals; and
- b) any such pen in which an unfit animal is being kept is clearly marked so as to show that it is being used for this purpose and that entry to the pen is prohibited unless under the authority of an inspector.

#### 23. Detention and treatment of unfit animals

- a) Where an veterinary inspector has reasonable grounds for supposing that any animal in a market is unfit he may move it, or cause it to be moved, to a pen provided in the market for the accommodation of unfit animals or to any other



suitable place in the market and require the Animal Market Committee to detain the animal there pending its examination by a veterinary inspector.

- b) Where a veterinary inspector is of the opinion that any animal in a market is unfit, he may treat it, or cause it to be treated, and take, or cause to be taken, any other steps that he considers necessary to protect it from suffering, and he may for any such purpose require the Animal Market Committee to detain the animal in a pen for as long as he considers necessary for the purpose of further treatment or otherwise protecting it from suffering.
- c) Where an animal is being detained in pursuance of this rule no person shall move it from its place of detention except with the approval of a veterinary inspector and in accordance with any conditions subject to which the approval is given.
- d) Animal Market Committee shall—
  - i. render such reasonable assistance to an inspector as he may require for the purpose of facilitating the exercise of his powers under this rule.
  - ii. give to an inspector such information as he possesses as to the ownership of any animal in respect of which any such power is exercised.
  - iii. ensure that the amount of any expenses reasonably incurred by a veterinary inspector in treating, or causing to be treated, an unfit animal in exercise of the power conferred to him by this rule shall be recoverable by the appropriate local authority as a debt from the owner of the animal in respect of which the power was exercised.

#### **24. Marking of animals**

An inspector may, for the purposes of this Order, mark, or cause to be marked, any animal including ear tags. To ensure convenient tagging health examination of sick and injured animals, proper provisions of trevis with shade is to be ensured by the member secretary of the Animal Marketing Committee. It shall have proper electricity and lighting.

#### **25. Ramps**

Where, at any time after the coming into force of this rule, any premises are constructed for use as a market it shall be the duty of the Animal Market Committee for that market to ensure that facilities are provided in the market for the purpose of loading and unloading cattle, sheep, goats and pigs into and out of vehicles and that those facilities consist of fixed ramps or other facilities which are of a height and design suitable and as prescribed for that purpose; and it shall be the duty of the Animal Market Committee to ensure that any fixed ramp or other facilities which are so provided are fitted with side railings (or some other means of protection) designed and constructed so as to prevent such animals from falling off them.

#### **26. Local authority to enforce the rule**

- a) The provisions of this rule shall, except where otherwise expressly provided, be executed and enforced by the District Magistrate / Collector.
- b) If the District Magistrate / Collector on his own accord or on receipt of

complaint, has determined that a market is functioning in breach of these rules, he/she may direct the closure of such market.

**27. Indemnity**

Inspectors appointed by the State Board, Animal Husbandry Department, District Magistrate shall be considered to be public servant as per Section 21 of the Indian Penal Code and the protection & indemnity provided in section 39 & section 40 of the Act shall be extended to them.

**28. Saving**

The provisions of this rule are in addition to, and not in substitution for any legislation enacted by the state governments to regulate animal markets and nothing contained in this rule shall affect, or be affected by, the provisions of that act

  
**भारत का राजपत्र**  
**The Gazette of India**

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 439]	नई दिल्ली, बुधवार, जुलाई 8, 2015/आषाढ़ 17, 1937
No. 439]	NEW DELHI, WEDNESDAY, JULY 8, 2015/ASHADHA 17, 1937

सड़क परिवहन और राजमार्ग मंत्रालय

अधिसूचना

नई दिल्ली, 8 जुलाई, 2015

**सा.का.नि. 546(अ).**—केन्द्रीय मोटर यान नियम, 1989 की धारा 212 की उपधारा (1) के अधीन अपेक्षानुसार केन्द्रीय मोटर यान नियम, 1989 का और संशोधन करने के लिए, भारत सरकार के सड़क परिवहन और राजमार्ग मंत्रालय की भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में प्रकाशित अधिसूचना सा.का.नि. संख्यांक 745 (अ) तारीख 27 अक्टूबर, 2014 द्वारा प्रारूप नियम प्रकाशित किए गए थे, उन सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, उस तारीख से जिसको उक्त अधिसूचना से युक्त राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी तीस दिन की अवधि के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे;

और राजपत्र की प्रतियां जिसमें उक्त अधिसूचना प्रकाशित की गई थी, जनता को 27 अक्टूबर, 2014 को उपलब्ध करा दी गई थी;

और उक्त प्रारूप नियमों की बाबत जनता से प्राप्त आक्षेपों और सुझावों पर केन्द्रीय सरकार द्वारा विचार कर लिया गया है;

अतः अब केन्द्रीय सरकार उक्त अधिनियम की धारा 110 की उपधारा (1) के खंड (ड) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केन्द्रीय मोटर यान नियम, 1989 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:-

1. (1) इन नियमों का संक्षिप्त नाम केन्द्रीय मोटर यान (ग्यारहवाँ संशोधन) नियम, 2015 है।

(2) ये नियम 1 जनवरी, 2016 को प्रवृत्त होंगे।

2. केन्द्रीय मोटर यान नियम, 1989 (जिसे इसमें इसके पश्चात् मूल नियम कहा गया है) के नियम 125घ के पश्चात् निम्नलिखित नियम अंतःस्थापित किया जाएगा, अर्थात् :-

"125ड. पशुधन का परिवहन करने वाले मोटरयानों के लिए विशेष अपेक्षाएं—(1) 1 जनवरी, 2016 को और उसके पश्चात् सड़क द्वारा पशुधन का परिवहन करने के लिए उपयोग किए जा रहे मोटरयान, यथास्थिति समय-समय पर संशोधित भारतीय मानक ब्यूरो की आईएस 14904: 2007; या आईएस 5238:2001; या आई एस 5236:1982 में यथाउपबंधित विशिष्टियों के अनुसार होंगे और पशुधन का परिवहनकर्ता या परेषणकर्ता संबंधित विशिष्टियों में पशु धन के परिवहन की बाबत अधिकथित व्यवहार संहिता का अनुसरण करेगा।

(2) उपनियम (1) के अधीन रहते हुए जानवरों को ले जाने वाले मोटर यान में यान की बाड़ी में स्थायी विभाजन होंगे जिससे प्रत्येक विभाजन में जानवरों को व्यष्टिक रूप से ले जाया जाए, जिसमें विभाजन का आकार निम्नलिखित से कम नहीं होगा, अर्थात् :-

(i) गाय और भैंसें=2 वर्गमीटर

(ii) घोड़े और घोड़यां= 2.25 वर्गमीटर

(iii) भेड़ और बकरी=0.3 वर्गमीटर

(iv) सूअर =0.6 वर्गमीटर; और

(v) कुक्कुट =40 वर्ग सेंटीमीटर

(3) जानवरों को ले जाने के लिए आशयित किसी मोटर यान को अन्य माल को ले जाने के लिए अनुज्ञात नहीं किया जाएगा।

(4) प्रादेशिक परिवहन अधिकारी उपनियम (2) के उपबंधों के अनुसार उपांतरित मोटर यान के आधार पर जानवरों को ले जाने के लिए आशयित मोटर यानों को विशेष अनुज्ञप्तियां जारी करेगा।

[फा. सं. आरटी-11036/24/2014-एमवीएल]

संजय बंदोपाध्याय, संयुक्त सचिव

**टिप्पणः**—मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (i) में अधिसूचना सं. सा.का.नि. 590(अ), तारीख 2 जून, 1989 द्वारा प्रकाशित किए गए थे और अंतिम संशोधन सा.का.नि. सं. 498(अ), तारीख 16-06-2015 द्वारा किया गया।

## MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

### NOTIFICATION

New Delhi, the 8th July, 2015

**G.S.R. 546(E).**—Whereas, the draft rules further to amend the Central Motor Vehicles Rules, 1989, were published, as required under sub-section (1) of Section 212 of the Motor Vehicles Act, 1988 (59 of 1988), *vide* notification of the Government of India in the Ministry of Road Transport and Highways number G.S.R. 745 (E), dated the 27th October, 2014 in the Gazette of India, Extraordinary, Part-II, Section 3, sub-section (i) inviting objections and suggestions from all persons likely to be affected thereby before the expiry of the period of thirty days from the date on which copies of the said notification containing the draft rules were made available to the public;

And whereas, copies of the said Gazette notification were made available to the public on the 27th October, 2014;

And whereas, the objections and suggestions received from the public in respect of the said draft rules have been considered by the Central Government;

Now, therefore, in exercise of the powers conferred by clause (m) of sub-section (1) of Section 110 of the Motor Vehicles Act, 1988 (59 of 1988), the Central Government hereby makes the following rules further to amend the Central Motor Vehicles Rules, 1989, namely: —

1. (1) These rules may be called the Central Motor Vehicles (Eleventh Amendment) Rules, 2015.  
(2) They shall come into force on the 1<sup>st</sup> day of January, 2016.
2. In the Central Motor Vehicles Rules, 1989 (hereinafter referred to as the principal rules), after rule 125D the following rule shall be inserted, namely:—  

“125E. Special requirements of motor vehicles transporting livestock.- (1) On and after, the 1st January, 2016, motor vehicles used for transportation of livestock by road shall be in accordance with the specifications of the Bureau of Indian Standards as provided in IS-14904:2007; or IS-5238:2001; or IS-5236:1982, as the case may be, as amended from time to time and the transporter or consigner of the livestock shall follow the code of practice laid down in the respective specification regarding the transport of the livestock.

(2) Subject to sub-rule (1), the motor vehicles for carrying animals shall have permanent partitions in the body of the vehicle so that the animals are carried individually in each partition where the size of the partition shall not be less than the following namely:—

  - (i) Cows and buffalos = 2 sq. mts.
  - (ii) Horses and mares = 2.25 sq. mts.
  - (iii) Sheep and goat = 0.3 sq. mts.
  - (iv) Pig = 0.6 sq. mts; and
  - (v) Poultry = 40 cm sq.

(3) No motor vehicles meant for carrying animals shall be permitted to carry any other goods.

(4) The Regional Transport Officer shall issue special licences for the motor vehicles meant for carrying animals on the basis of vehicles modified in accordance with the provisions of sub-rule (2).”.

[F. No. RT-11036/24/2014-MVL]

SANJAY BANDOPADHYAYA, Jt. Secy.

**Note:-** The principal rules were published in the Gazette of India, Extraordinary, Part-II, Section 3, sub-section (i) vide notification number G.S.R. 590(E), dated the 2nd June, 1989 and lastly amended vide notification number 498(E), dated 16-06-2015.

  
**भारत का राजपत्र**  
**The Gazette of India**

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 666]

नई दिल्ली, शुक्रवार, सितम्बर 23, 2016/आश्विन 1, 1938

No. 666]

NEW DELHI, FRIDAY, SEPTEMBER 23, 2016/ ASVINA 1, 1938

सड़क परिवहन और राजमार्ग मंत्रालय

अधिसूचना

नई दिल्ली, 23 सितंबर, 2016

सा.का.नि. 904(अ).—केंद्रीय मोटरयान अधिनियम, 1988 (1988 का 59) की धारा 212 की उपधारा (1) द्वारा यथा अपेक्षित केन्द्रीय मोटर नियम, 1989 का और संशोधन करने के लिए प्रारूप नियम भारत सरकार में सड़क परिवहन और राजमार्ग मंत्रालय की अधिसूचना सं. सा.का.नि. 621 (अ), तारीख 23 जून, 2016 द्वारा भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में उनसे द्वारा संभाव्य प्रभावित सभी व्यक्तियों द्वारा उस तारीख से जब प्रारूप नियमों से अंतर्विष्ट उक्त अधिसूचना की प्रतियां जनसाधारण को उपलब्ध करवाई गई थीं, से तीस दिन की अवधि की समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित करने के लिए प्रकाशित किए गए थे ;

उक्त राजपत्र अधिसूचना की प्रतियां जनसाधारण को 23 जून, 2016 को उपलब्ध करवाई गई थीं ;

उक्त प्रारूप नियमों के संबंध में जनसाधारण से प्राप्त आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा विचार किया गया है ;

अतः, केन्द्रीय सरकार, मोटर यान अधिनियम, 1988 (1988 का 59) की धारा 110 की उपधारा (1) के खंड (क) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए केन्द्रीय मोटर यान नियम, 1989 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:-

1. (1) इन नियमों का संक्षिप्त नाम केंद्रीय मोटरयान नियम (13 वॉ संशोधन) नियम 2016 है।  
(2) ये राजपत्र में उनके अंतिम प्रकाशन की तारीख को प्रवृत्त होंगे।
2. केन्द्रीय मोटर यान नियम, 1989, के नियम 125ड. में,-  
(i) उपनियम (3) के स्थान पर, निम्नलिखित उपनियम रखा जाएगा, अर्थात्:-

"(3) पशुओं के वहन के लिए रखे गए किसी मोटरयान को पशुओं का वहन करते समय, अन्य माल के वहन के लिए अनुज्ञात नहीं किया जाएगा " ;

(ii) उपनियम (4) के पश्चात्, निम्नलिखित परंतुक अन्तःस्थापित किया जाएगा, अर्थात्:--

"परंतु इस नियम में की गई कोई बात, किसान के पशुधन का वहन करने वाले यान को लागू नहीं होगी।"

[स.आर टी-11036/24/2014-एमवीएल]

अभय दामले, संयुक्त सचिव

टिप्पण : मूल नियम भारत के राजपत्र असाधारण भाग II, खंड 3 के उपखंड (i) में अधिसूचना संख्यांक सा.का.नि. 590(अ), तारीख 2 जून, 1989 द्वारा अधिसूचित किए गए थे और अधिसूचना संख्यांक सा.का.नि 895 (अ), तारीख 20.09.2016 उनका अन्तिम संशोधन किया गया।

**MINISTRY OF ROAD TRANSPORT AND HIGHWAYS  
NOTIFICATION**

New Delhi, the 23rd September, 2016

**G.S.R. 904(E).**—Whereas the draft rules further to amend the Central Motor Vehicles Rules, 1989, were published, as required under sub-section (1) of section 212 of the Motor Vehicles Act, 1988 (59 of 1988), vide notification of the Government of India in the Ministry of Road Transport and Highways number G.S.R. 621 (E), dated the 23rd June, 2016 in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (i) inviting objections and suggestions from affected persons before the expiry of the period of thirty days from the date on which copies of the Gazette containing the said notification were made available to public;

Whereas, copies of the said Gazette notification were made available to the public on the 23rd June, 2016;

And whereas, the objections and suggestions received from the public in respect of the said draft rules have been considered by the Central Government;

Now, therefore, in exercise of the powers conferred by clause (a) of sub-section (1) of section 110 of the Motor Vehicles Act, (59 of 1988), the Central Government hereby makes the following rules further to amend the Central Motor Vehicles Rules, 1989, namely: —

1. (1) These rules may be called the Central Motor Vehicles (13<sup>th</sup> Amendment) Rules, 2016.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Central Motor Vehicles Rules, 1989, in rule 125E,-
  - (i) for sub-rule (3), the following sub-rule shall be substituted, namely:-
 

“ (3) No motor vehicles meant for carrying animals shall be permitted to carry any other goods, while carrying animals.”;
  - (ii) after sub- rule (4), the following proviso shall be inserted, namely:-
 

“Provided that nothing in this rule shall apply to a vehicle carrying livestock belonging to farmers.”.

[No.RT-11036/24/2014-MVL]

ABHAY DAMLE, Jt. Secy.

Note.- The principal rules were published in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (i) vide notification number G.S.R. 590(E), dated the 2<sup>nd</sup> June, 1989 and lastly amended vide notification number G.S.R 895(E) dated 20.09.2016.

**MINISTRY OF LAW AND JUSTICE  
(Legislative Department)**

*New Delhi, the 24th August, 2006/Bhadra2, 1928( Saka)*

The following Act of Parliament received the assent of the President on 23rd August, 2006, and is hereby published for general information:-

**FOOD SAFETY AND STANDARDS ACT, 2006**

**No. 34 OF 2006**

**[23<sup>rd</sup> August, 2006]**

*An Act to consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and for matters connected therewith or incidental thereto.*

BE it enacted by Parliament in the Fifty-seventh Year of the Republic of India as follows:-

**CHAPTER I**

**PRELIMINARY 1.**

**Short title, extent and commencement**

1. This Act may be called the **Food Safety and Standards Act, 2006**.
2. It extends to the whole of India.
3. It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint, and different dates may be appointed for different provisions of this Act and any reference in any such provision to the commencement of this Act shall be construed as a reference to the coming into force of that provision.

**2. Declaration as to expediency of control by the Union.**

It is hereby declared that it is expedient in the public interest that the Union should take under its control the food industry.

**3. Definitions.**

(1) In this Act, unless the context otherwise requires, –

- (a) “adulterant” means any material which is or could be employed for making the food unsafe or sub-standard or mis-branded or containing extraneous matter;
- (b) “advertisement” means any audio or visual publicity, representation or pronouncement made by means of any light, sound, smoke, gas, print, electronic media, internet or website and includes through any notice, circular, label, wrapper, invoice or other documents;
- (c) “Chairperson” means the Chairperson of the Food Authority;
- (d) “claim” means any representation which states, suggests, or implies that a food has particular qualities relating to its origin, nutritional properties, nature, processing, composition or otherwise;
- (e) “Commissioner of Food Safety” means the Commissioner of Food Safety appointed under section 30;



- (f) “consumer” means persons and families purchasing and receiving food in order to meet their personal needs;
- (g) “contaminant” means any substance, whether or not added to food, but which is present in such food as a result of the production (including operations carried out in crop husbandry, animal husbandry or veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food or as a result of environmental contamination and does not include insect fragments, rodent hairs and other extraneous matter;
- (h) “Designated Officer” means the officer appointed under section 36;
- (i) “extraneous matter” means any matter contained in an article of food which may be carried from the raw materials, packaging materials or process systems used for its manufacture or which is added to it, but such matter does not render such article of food unsafe;
- (j) “Food” means any substance, whether processed, partially processed or unprocessed, which is intended for human consumption and includes primary food to the extent defined in clause (zk), genetically modified or engineered food or food containing such ingredients, infant food, packaged drinking water, alcoholic drink, chewing gum, and any substance, including water used into the food during its manufacture, preparation or treatment but does not include any animal feed, live animals unless they are prepared or processed for placing on the market for human consumption, plants, prior to harvesting, drugs and medicinal products, cosmetics, narcotic or psychotropic substances :

Provided that the Central Government may declare, by notification in the Official Gazette, any other article as food for the purposes of this Act having regards to its use, nature, substance or quality;

- (k) “food additive” means any substance not normally consumed as a food by itself or used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result (directly or indirectly), in it or its by-products becoming a component of or otherwise affecting the characteristics of such food but does not include “contaminants” or substances added to food for maintaining or improving nutritional qualities;
- (l) “Food Analyst” means an analyst appointed under section 45;
- (m) “Food Authority” means the Food Safety and Standards Authority of India established under section 4;
- (n) “Food business” means any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of manufacture, processing, packaging, storage, transportation, distribution of food, import and includes food services, catering services, sale of food or food ingredients;
- (o) “food business operator” in relation to food business means a person by whom the business is carried on or owned and is responsible for ensuring the compliance of this Act, rules and regulations made thereunder;
- (p) “food laboratory” means any food laboratory or institute established by the Central or a State Government or any other agency and accredited by National Accreditation Board for Testing and Calibration Laboratories or an equivalent accreditation agency and recognised by the Food Authority under section 43;
- (q) “food safety” means assurance that food is acceptable for human consumption according to its intended use;
- (r) “food safety audit” means a systematic and functionally independent examination of food safety measures adopted by manufacturing units to determine whether such measures and related results meet with objectives of food safety and the claims made in

that behalf;

- (s) Food Safety Management System” means the adoption Good Manufacturing Practices, Good Hygienic Practices, Hazard Analysis and Critical Control Point and such other practices as may be specified by regulation, for the food business;
- (t) “Food Safety Officer” means an officer appointed under section 37;
- (u) “hazard” means a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect;
- (v) “import” means bringing into India any article of food by land, sea or air;
- (w) “improvement notice” means a notice issued under section 32 of this Act;
- (x) “infant food” and “infant milk substitute” shall have the meanings assigned to them in clauses (f) and (g) of subsection (1) of section 2 of the Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992(41 of 1992), respectively;
- (y) “ingredient” means any substance, including a food additive used in the manufacture or preparation of food and present in the final product, possibly in a modified form;
- (z) “label” means any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, embossed, graphic, perforated, stamped or impressed on or attached to container, cover, lid or crown of any food package and includes a product insert;
- (za) “licence” means a licence granted under section 31;
- (zb) “local area” means any area, whether urban or rural, notified by the Commissioner of Food Safety, to be a local area for the purposes of this Act;
- (zc) “manufacture” means a process or adoption or any treatment for conversion of ingredients into an article of food, which includes any sub-process, incidental or ancillary to the manufacture of an article of food;
- (zd) “manufacturer” means a person engaged in the business of manufacturing any article of food for sale and includes any person who obtains such article from another person and packs and labels it for sale or only labels it for such purposes;
- (ze) “Member” means Member of the Food Authority and includes the Chairperson;
- (zf) “misbranded food” means an article of food –
  - (a) if it is purported, or is represented to be, or is being –
    - i. offered or promoted for sale with false, misleading or deceptive claims either;
      - (a) upon the label of the package, or
      - (b) through advertisement, or
    - ii. sold by a name which belongs to another article of food; or
    - iii. offered or promoted for sale under the name of a fictitious individual or company as the manufacturer or producer of the article as borne on the package or containing the article or the label on such package; or
  - (b) if the article is sold in packages which have been sealed or prepared by or at the instance of the manufacturer or producer bearing his name and address but -

- i. the article is an imitation of, or is a substitute for, or resembles in a manner likely to deceive, another article of food under the name of which it is sold, and is not plainly and conspicuously labelled so as to indicate its true character; or
- ii. the package containing the article or the label on the package bears any statement, design or device regarding the ingredients or the substances contained therein, which is false or misleading in any material particular, or if the package is otherwise deceptive with respect to its contents; or
- iii. the article is offered for sale as the product of any place or country which is false; or

(c) if the article contained in the package –

- i. contains any artificial flavouring, colouring or chemical preservative and the package is without a declaratory label stating that fact or is not labelled in accordance with the requirements of this Act or regulations made thereunder or is in contravention thereof; or
- ii. is offered for sale for special dietary uses, unless its label bears such information as may be specified by regulation, concerning its vitamins, minerals or other dietary properties in order sufficiently to inform its purchaser as to its value for such use; or
- iii. is not conspicuously or correctly stated on the outside thereof within the limits of variability laid down under this Act.

(zg) “notification” means a notification published in the Official Gazette;

(zh) “package” means a pre-packed box, bottle, casket, tin, barrel, case, pouch, receptacle, sack, bag, wrapper or such other things in which an article of food is packed;

(zi) “premises” include any shop, stall, hotel, restaurant, airline services and food canteens, place or vehicle or vessel where any article of food is sold or manufactured or stored for sale;

(zj) “prescribed” means prescribed by rules made by the Central Government or the State Government, as the case may be under this Act;

(zk) “primary food” means an article of food, being a produce of agriculture or horticulture or animal husbandry and dairying or aquaculture in its natural form, resulting from the growing, raising, cultivation, picking, harvesting, collection or catching in the hands of a person other than a farmer or fisherman;

(zl) “prohibition order” means an order issued under section 33 of this Act;

(zm) “risk”, in relation to any article of food, means the probability of an adverse effect on the health of consumers of such food and the severity of that effect, consequential to a food hazard;

(zn) “risk analysis”, in relation to any article of food, means a process consisting of three components, i.e. risk assessment, risk management and risk communication;

(zo) “risk assessment” means a scientifically based process consisting of the following steps : (i) hazard identification,(ii) hazard characterisation; (iii) exposure assessment, and (iv) risk characterisation;

(zp) “risk communication” means the interactive exchange of information and opinions throughout the risk analysis process concerning risks, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions;

(zq) “risk management” means the process, distinct from risk assessment, of evaluating policy alternatives, in consultation with all interested parties considering risk assessment and other factors relevant for the protection of health of consumers and for the promotion of fair trade practices, and, if needed, selecting appropriate prevention and control options;

(zr) “sale” with its grammatical variations and cognate expressions, means the sale of any article of food, whether for cash or on credit or by way of exchange and whether by wholesale or retail, for human consumption or use, or for analysis, and includes an agreement for sale, an offer for sale, the exposing for sale or having in possession for sale of any such article, and includes also an attempt to sell any such article;

(zs) “sample” means a sample of any article of food taken under the provisions of this Act or any rules and regulations made thereunder;

(zt) “specified by regulations” means specified by regulations made by the Food Authority;

(zu) “standard”, in relation to any article of food, means the standards notified by the Food Authority;

(zv) “State Government” in relation to a Union territory means the Administrator of that Union territory appointed by the President under article 239 of the Constitution;

(zw) “substance” includes any natural or artificial substance or other matter, whether it is in a solid state or in liquid form or in the form of gas or vapour;

(zx) “Sub-standard” an article of food shall be deemed to be sub-standard if it does not meet the specified standards but not so as to render the article of food unsafe;

(zy) “Tribunal” means the Food Safety Appellate Tribunal established under section 70;

(zz) “unsafe food” means an article of food whose nature, substance or quality is so affected as to render it injurious to health :—

- i. by the article itself, or its package thereof, which is composed, whether wholly or in part, of poisonous or deleterious substance; or
- ii. by the article consisting, wholly or in part, of any filthy, putrid, rotten, decomposed or diseased animal substance or vegetable substance; or
- iii. by virtue of its unhygienic processing or the presence in that article of any harmful substance; or
- iv. by the substitution of any inferior or cheaper substance whether wholly or in part; or
- v. by addition of a substance directly or as an ingredient which is not permitted; or
- vi. by the abstraction, wholly or in part, of any of its constituents; or
- vii. by the article being so coloured, flavoured or coated, powdered or polished, as to damage or conceal the article or to make it appear better or of greater value than it really is; or
- viii. by the presence of any colouring matter or preservatives other than that specified in respect thereof; or

- ix. by the article having been infected or infested with worms, weevils, or insects; or
  - x. by virtue of its being prepared, packed or kept under insanitary conditions; or
  - xi. by virtue of its being mis-branded or sub-standard or food containing extraneous matter; or
  - xii. by virtue of containing pesticides and other contaminants in excess of quantities specified by regulations.
- (2) Any reference in this Act to a law which is not in force in the State of Jammu and Kashmir shall, in relation to that State, be construed as a reference to the corresponding Law, if any, in force in that State.

## CHAPTER II FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA

### 4. Establishment of Food Safety and Standards Authority of India.

- (1) The Central Government shall, by notification, establish a body to be known as the Food Safety and Standards Authority of India to exercise the powers conferred on, and to perform the functions assigned to, it under this Act.
- (2) The Food Authority shall be a body corporate by the name aforesaid, having perpetual succession and a seal with power to acquire, hold and dispose of property, both movable and immovable, and to contract and shall, by the said name, sue or be sued.
- (3) The head office of the Food Authority shall be at Delhi.
- (4) The Food Authority may establish its offices at any other place in India.

### 5. Composition of Food Authority and qualifications for appointment of its Chairperson and other Members

- (1) The Food Authority shall consist of a Chairperson and the following twenty-two members out of which one-third shall be women, namely:-
  - (a) seven Members, not below the rank of a Joint Secretary to the Government of India, to be appointed by the Central Government, to respectively represent the Ministries or Departments of the Central Government dealing with –
    - i. Agriculture,
    - ii. Commerce,
    - iii. Consumer Affairs,
    - iv. Food Processing,
    - v. Health,
    - vi. Legislative Affairs,
    - vii. Small Scale Industries,

who shall be Members *ex officio*;

- (b) two representatives from food industry of which one shall be from small scale industries;
- (c) two representatives from consumer organisations;

- (d) three eminent food technologists or scientists;
  - (e) five members to be appointed by rotation every three years, one each in seriatim from the Zones as specified in the First Schedule to represent the States and the Union territories;
  - (f) two persons to represent farmers' organisations;
  - (g) one person to represent retailers' organisations.
- (2) The Chairperson and other Members of the Food Authority shall be appointed in such a manner so as to secure the highest standards of competence, broad range of relevant expertise, and shall represent, the broadest possible geographic distribution within the country.
  - (3) The Chairperson shall be appointed by the Central Government from amongst the persons of eminence in the field of food science or from amongst the persons from the administration who have been associated with the subject and is either holding or has held the position of not below the rank of Secretary to the Government of India.
  - (4) The Chairperson and the Members other than *ex officio* Members of the Food Authority shall be appointed by the Central Government on the recommendations of the Selection Committee.
  - (5) The Chairperson or Members other than *ex-officio* Members of the Food Authority shall not hold any other office.

#### **6. Selection Committee for selection of Chairperson and Members of Food Authority.**

- (1) The Central Government shall, for the purpose of selection of the Chairperson and the Members other than *ex officio* Members of the Food Authority, constitute a Selection Committee consisting of –
  - (a) Cabinet Secretary – Chairperson,
  - (b) Secretary-in-charge of the Ministry or the Department responsible for administration of this Act as the convener– Member,
  - (c) Secretary-in-charge of the Ministries or the Departments of the Central Government dealing with Health ,Legislative and Personnel– Members,
  - (d) Chairman of the Public Enterprises Selection Board –Member,
  - (e) An eminent food technologist to be nominated by the Central Government – Member.

**Explanation**– For the purposes of clause (e), the Central Government shall nominate a person from amongst persons holding the post of Director or the Head, by whatever name called, of any national research or technical institution.

- (2) The Central Government shall, within two months from the date of occurrence of any vacancy by reason of death, resignation, or removal of the Chairperson or a Member of the Food Authority and three months before the superannuation or completion of the term of office of the Chairperson or any Member of that Authority, make a reference to the Selection Committee for filling up of the vacancy.
- (3) The Selection Committee shall finalise the selection of the Chairperson and Members of the Food Authority within two months from the date on which the reference is made to it.

- (4) The Selection Committee shall recommend a panel of two names for every vacancy referred to it.
- (5) Before recommending any person for appointment as a Chairperson or other Member of the Food Authority, the Selection Committee shall satisfy itself that such person does not have any financial or other interest, which is likely to affect prejudicially his functions as a Member.
- (6) No appointment of the Chairperson or other Member of the Food Authority shall be invalid merely by reason of any vacancy in the Selection Committee.

#### **7. Term of Office, salary, allowances and other conditions of service of Chairperson and Members of Food Authority**

- (1) The Chairperson and the members other than *ex officio* Members shall hold office for a term of three years from the date on which they enter upon their offices, and shall be eligible for re-appointment for a further period of three years:

Provided that the Chairperson shall not hold office as such after he has attained the age of sixty-five years.

- (a) in the case of the Chairperson, the age of sixty-five years, and
  - (b) in the case of a Member, the age of sixty-two years.
- (2) The salary and allowances payable to, and the other terms and conditions of service of the Chairperson and Members other than *ex-officio* Members shall be such as may be prescribed by the Central Government.
  - (3) The Chairperson and every Member shall, before entering upon his office, make and subscribe to an oath of office and of secrecy in such form and in such manner and before such authority as may be prescribed by the Central Government.
  - (4) Notwithstanding anything contained in sub-section the Chairperson or any Member may –
    - (a) relinquish his office by giving in writing to the Central Government a notice of not less than three months; or
    - (b) be removed from his office in accordance with the provisions of section 8.
  - (5) The Chairperson or any Member ceasing to hold office as such shall not represent any person before the Food Authority or any State Authority in any manner.

#### **8. Removal of Chairperson and Members of Food Authority.**

- (1) Notwithstanding anything contained in sub-section (1) of section 7, the Central Government may, by order, remove from office the Chairperson or any other Member, if the Chairperson or as the case may be, such other Member,—
  - (a) has been adjudged an insolvent; or
  - (b) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude; or
  - (c) has become physically or mentally incapable of acting as a Member; or
  - (d) has acquired such financial or other interests as is likely to affect prejudicially his functions as a Member; or
  - (e) has so abused his position as to render his continuance in office prejudicial to the public interest.

- (2) No Member shall be removed under clauses (d) and (e) of sub-section (1) unless he has been given a reasonable opportunity of being heard in the matter.

### **9. Officers and other employees of Food Authority.**

- (1) There shall be a Chief Executive Officer of the Food Authority, not below the rank of Additional Secretary to the Government of India, who shall be the Member-Secretary of the Authority, to be appointed by the Central Government.
- (2) The Food Authority may, with the approval of the Central Government, determine the number, nature and categories of other officers and employees required to the Food Authority in the discharge of its functions.
- (3) The salaries and allowances payable to and other conditions of service of, the Chief Executive Officer, officers, and other employees shall be such as may be specified by regulations by the Food Authority with the approval of the Central Government.

### **10. Functions of the Chief Executive Officer**

- (1) The Chief Executive Officer shall be the legal representative of the Food Authority and shall be responsible for –
- (a) the day-to-day administration of the Food Authority;
  - (b) drawing up of proposal for the Food Authority's work programmes in consultation with the Central Advisory Committee;
  - (c) implementing the work programmes and the decisions adopted by the Food Authority;
  - (d) ensuring the provision of appropriate scientific, technical and administrative support for the Scientific Committee and the Scientific Panel;
  - (e) ensuring that the Food Authority carries out its tasks in accordance with the requirements of its users, in particular with regard to the adequacy of the services provided and the time taken;
  - (f) the preparation of the statement of revenue and expenditure and the execution of the budget of the Food Authority; and
  - (g) developing and maintaining contact with the Central Government, and for ensuring a regular dialogue with its relevant committees.



- (2) Every year, the Chief Executive Officer shall submit to the Food Authority for approval –
  - (a) a general report covering all the activities of the Food Authority in the previous year;
  - (b) programmes of work;
  - (c) the annual accounts for the previous year; and
  - (d) the budget for the coming year.
- (3) The Chief Executive Officer shall, following adoption by the Food Authority, forward, the general report and the programmes to the Central Government and the State Governments and shall have them published.
- (4) The Chief Executive Officer shall approve all financial expenditure of the Food Authority and report on the Authority's activities to the Central Government.
- (5) The Chief Executive Officer shall exercise the powers of the Commissioner of Food Safety while dealing with matters relating to food safety of such articles.
- (6) The Chief Executive Officer shall have administrative control over the officers and other employees of the Food Authority.

#### **11. Central Advisory Committee.**

- (1) The Food Authority shall, by notification, establish a Committee to be known as the Central Advisory Committee.
- (2) The Central Advisory Committee shall consist of two members each to represent the interests of food industry, agriculture, consumers, relevant research bodies and food laboratories and all Commissioners of Food Safety, and the Chairperson of the Scientific Committee shall be *ex officio* member.
- (3) The representatives of the concerned Ministries or Departments of the Central Government in Agriculture, Animal Husbandry and Dairying, Bio-technology, Commerce and Industry, Consumer Affairs, Environment and Forests, Food Processing Industries, Health, Panchayati Raj, Small Scale Industries and Food and Public Distribution or government institutes or organisations and government recognised farmers' shall be invitees to the deliberations of the Central Advisory Committee.
- (4) The Chief Executive Officer shall be *ex officio* Chairperson of the Central Advisory Committee.
- (5) The Central Advisory Committee shall follow such rules of procedure including its transaction of business as may be specified by regulations.

#### **12. Functions of Central Advisory Committee.**

- (1) The Central Advisory Committee shall ensure close cooperation between the Food Authority and the enforcement agencies and organisations operating in the field of food.
- (2) The Central Advisory Committee shall advise the Food Authority on –
  - (a) the performance of its duties under this section and in particular in drawing up of a proposal for the Food Authority's work programme,
  - (b) on the prioritisation of work,

- (c) identifying potential risks,
  - (d) pooling of knowledge, and
  - (e) such other functions as may be specified by regulations.
- (3) The Central Advisory Committee shall meet regularly at the invitation of the Chairperson of Central Advisory Committee or at the request of at least one-third of its members, and not less than three times a year.

### **13. Scientific Panels.**

- (1) The Food Authority shall establish scientific panels, which shall consist of independent scientific experts.
- (2) The Scientific Panel shall invite the relevant industry and consumer representatives in its deliberations.
- (3) Without prejudice to the provisions of sub-section (1), the Food Authority may establish as many Scientific Panels as it considers necessary in addition to the Panels on:
  - (a) food additives, flavourings, processing aids and materials in contact with food;
  - (b) pesticides and antibiotics residues;
  - (c) genetically modified organisms and foods;
  - (d) functional foods, nutraceuticals, dietetic products and other similar products;
  - (e) biological hazards;
  - (f) contaminants in the food chain;
  - (g) labelling; and
  - (h) method of sampling and analysis.
- (4) The Food Authority may from time to time re-constitute the Scientific Panels by adding new members or by omitting the existing members or by changing the name of the panel as the case may be.

### **14. Scientific Committee.**

- (1) The Food Authority shall constitute Scientific Committee which shall consist of the Chairpersons of the Scientific Panels and six independent scientific experts not belonging or affiliated to any of the Scientific Panels.
- (2) The Scientific Committee shall be responsible for providing the scientific opinions to the Food Authority, and shall have the powers, where necessary, of organising public hearings.
- (3) The Scientific Committee shall be responsible for the general co-ordination necessary to ensure consistency of the scientific opinion procedure and in particular with regard to the adoption of working procedures and harmonisation of working methods of the Scientific Panels.
- (4) The Scientific Committee shall provide opinions on multi-sectoral issues falling within the competence of more than one Scientific Panel, and on issues which do not fall within the competence of any of the Scientific Panels.

- (5) Wherever necessary, and particularly, in the case of subjects which do not fall within the competence of any of the Scientific Panel, the Scientific Committee shall set up working groups and in such cases, it shall draw on the expertise of those working groups when establishing scientific opinions.

#### **15. Procedure for Scientific Committee and Scientific Panel.**

- (1) The members of the Scientific Committee, who are not members of the Scientific Panel and the members of the Scientific Panel shall be appointed by the Food Authority, for a period of three years, which shall be renewable for such period, and the vacancy notice shall be published in the relevant leading scientific publications and on the Food Authority's website for a call for expressions of interest.
- (2) The Scientific Committee and the Scientific Panel shall each choose a Chairperson from amongst their members.
- (3) The Scientific Committee and the Scientific Panel shall act by a majority of their members and the views of the members shall be recorded.
- (4) The procedure for the operation and co-operation of the Scientific Committee and the Scientific Panel shall be specified by regulations.
- (5) These procedures shall relate in particular to –
  - (a) The number of times that a member can serve consecutively on a Scientific Committee or Scientific Panel;
  - (b) the number of members in each Scientific Panel;
  - (c) the procedure for re-imbursing the expenses of members of the Scientific Committee and the Scientific Panel;
  - (d) the manner in which tasks and requests for scientific opinions are assigned to the Scientific Committee and the Scientific Panel;
  - (e) The creation and organisation of the working groups of the Scientific Committee and the Scientific Panel, and the possibility of external experts being included in those working groups;
  - (f) The possibility of observers being invited to meetings of the Scientific Committee and the Scientific Panel;
  - (g) The possibility of organising public hearings; and
  - (h) Quorum of the meeting, meeting notice, agenda of the meeting and such other matters.

#### **16. Duties and functions of Food Authority.**

- (1) It shall be the duty of the Food Authority to regulate and monitor the manufacture, processing, distribution, sale and import of food so as to ensure safe and wholesome food.
- (2) Without prejudice to the provisions of sub-section (1), the Food Authority may by regulations specify –
  - (a) the standards and guidelines in relation to articles of food and specifying an appropriate system for enforcing various standards notified under this Act;
  - (b) the limits for use of food additives, crop contaminants, pesticide residues, residues of veterinary drugs, heavy metals, processing aids, myco-toxins, antibiotics and

- pharmacological active substances and irradiation of food;
- (c) the mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management systems for food businesses;
  - (d) the procedure and the enforcement of quality control in relation to any article of food imported into India;
  - (e) the procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories;
  - (f) the method of sampling, analysis and exchange of information among enforcement authorities;
  - (g) conduct survey of enforcement and administration of this Act in the country;
  - (h) food labelling standards including claims on health, nutrition, special dietary uses and food category systems for foods; and
  - (i) the manner in which and the procedure subject to which risk analysis, risk assessment, risk communication and risk management shall be undertaken.
- (3) The Food Authority shall also –
- (a) provide scientific advice and technical support to the Central Government and the State Governments in matters of framing the policy and rules in areas which have a direct or indirect bearing on food safety and nutrition;
  - (b) search, collect, collate, analyse and summarise relevant scientific and technical data particularly relating to –
    - i. food consumption and the exposure of individuals to risks related to the consumption of food;
    - ii. incidence and prevalence of biological risk;
    - iii. contaminants in food;
    - iv. residues of various contaminants;
    - v. identification of emerging risks; and
    - vi. introduction of rapid alert system;
  - (c) promote, co-ordinate and issue guidelines for the development of risk assessment methodologies and monitor and conduct and forward messages on the health and nutritional risks of food to the Central Government, State Governments and Commissioners of Food Safety;
  - (d) provide scientific and technical advice and assistance to the Central Government and the State Governments in implementation of crisis management procedures with regard to food safety and to draw up a general plan for crisis management and work in close co-operation with the crisis unit set up by the Central Government in this regard;
  - (e) establish a system of network of organisations with the aim to facilitate a scientific co-operation framework by the co-ordination of activities, the exchange of information, the development and implementation of joint projects, the exchange of expertise and best practices in the fields within the Food Authority's responsibility;
  - (f) provide scientific and technical assistance to the Central Government and the State

Governments for improving co-operation with international organisations;

- (g) take all such steps to ensure that the public, consumers, interested parties and all levels of panchayats receive rapid, reliable, objective and comprehensive information through appropriate methods and means;
  - (h) provide, whether within or outside their area, training programmes in food safety and standards for persons who are or intend to become involved in food businesses, whether as food business operators or employees or otherwise;
  - (i) undertake any other task assigned to it by the Central Government to carry out the objects of this Act;
  - (j) contribute to the development of international technical standards for food, sanitary and phyto-sanitary standards;
  - (k) contribute, where relevant and appropriate to the development of agreement on recognition of the equivalence of specific food related measures;
  - (l) promote co-ordination of work on food standards undertaken by international governmental and nongovernmental organisations;
  - (m) promote consistency between international technical standards and domestic food standards while ensuring that the level of protection adopted in the country is not reduced; and
  - (n) promote general awareness as to food safety and food standards.
- (4) The Food Authority shall make it public without undue delay –
- (a) the opinions of the Scientific Committee and the Scientific Panel immediately after adoption;
  - (b) the annual declarations of interest made by members of the Food Authority, the Chief Executive Officer, members of the Advisory Committee and members of the Scientific Committee and Scientific Panel, as well as the declarations of interest if any, made in relation to items on the agendas of meetings;
  - (c) the results of its scientific studies; and
  - (d) the annual report of its activities;
- (5) The Food Authority may from time to time give such directions, on matters relating to food safety and standards, to the Commissioner of Food Safety, who shall be bound by such directions while exercising his powers under this Act;
- (6) The Food Authority shall not disclose or cause to be disclosed to third parties confidential information that it receives for which confidential treatment has been requested and has been acceded, except for information which must be made public if circumstances so require, in order to protect public health.

### **17.Proceedings of Food Authority.**

- (1) The Food Authority shall meet at the head office or any of its offices at such time as the Chairperson may direct, and shall observe such rules of procedure in regard to the transaction of business at its meetings (including the quorum at its meetings) as may be specified by regulations.

- (2) If the Chairperson is unable to attend a meeting of the Food Authority, any other Member nominated by the Chairperson in this behalf and, in the absence of such nomination or where there is no Chairperson, any Member chosen by the Members present from amongst themselves, shall preside at the meeting.
- (3) All questions which come up before any meeting of the Food Authority shall be decided by a majority of votes of the Members present and voting, and in the event of an equality of votes, the Chairperson or the person presiding over the meeting shall have the right to exercise a second or casting vote.
- (4) All orders and decisions of the Food Authority shall be authenticated by the Chief Executive Officer.
- (5) The Chief Executive Officer shall take part in the meetings of the Food Authority but without a right to vote.
- (6) The Food Authority may invite the Chairperson of the Scientific Committee to attend its meetings but without a right to vote.
- (7) No act or proceedings of the Food Authority shall be questioned or invalidated merely on the ground of existence of any vacancy or defect in the constitution of Food Authority

### **CHAPTER III**

#### **GENERAL PRINCIPLES OF FOOD SAFETY**

#### **18. General principles to be followed in Administration of Act.**

The Central Government, the State Governments, the Food Authority and other agencies, as the case may be, while implementing the provisions of this Act shall be guided by the following principles namely:-

- (1) (a) endeavour to achieve an appropriate level of protection of human life and health and the protection of consumer's interests, including fair practices in all kinds of food trade with reference to food safety standards and practices;
- (b) carry out risk management which shall include taking into account the results of risk assessment and other factors which in the opinion of the Food Authority are relevant to the matter under consideration and where the conditions are relevant, in order to achieve the general objectives of regulations;
- (c) where in any specific circumstances, on the basis of assessment of available information, the possibility of harmful effects on health is identified but scientific uncertainty persists, provisional risk management measures necessary to ensure appropriate level of health protection may be adopted, pending further scientific information for a more comprehensive risk assessment;
- (d) the measures adopted on the basis of clause (c) shall be proportionate and no more restrictive of trade than is required to achieve appropriate level of health protection, regard being had to technical and economic feasibility and other factors regarded as reasonable and proper in the matter under consideration;
- (e) The measures adopted shall be reviewed within a reasonable period of time, depending on the nature of the risk to life or health being identified and the type of scientific information needed to clarify the scientific uncertainty and to conduct a more comprehensive risk assessment;

(f) in cases where there are reasonable grounds to suspect that a food may present a risk for human health, then, depending on the nature, seriousness and extent of that risk, the Food Authority and the Commissioner of Food Safety shall take appropriate steps to inform the general public of the nature of the risk to health, identifying to the fullest extent possible the food or type of food, the risk that it may present, and the measures which are taken or about to be taken to prevent, reduce or eliminate that risk; and

(g) where any food which fails to comply with food safety requirements is part of a batch, lot or consignment of food of the same class or description, it shall be presumed until the contrary is proved, that all of the food in that batch, lot or consignment fails to comply with those requirements.

(2) The Food Authority shall, while framing regulations or specifying standards under this Act—

(a) take into account –

(i) prevalent practices and conditions in the country including agricultural practices and handling, storage and transport conditions; and

(ii) international standards and practices, where international standards or practices exist or are in the process of being formulated, unless it is of opinion that taking into account of such prevalent practices and conditions or international standards or practices or any particular part thereof would not be an effective or appropriate means for securing the objectives of such regulations or where there is a scientific justification or where they would result in a different level of protection from the one determined as appropriate in the country;

(b) determine food standards on the basis of risk analysis except where it is of opinion that such analysis is not appropriate to the circumstances or the nature of the case;

(c) undertake risk assessment based on the available scientific evidence and in an independent, objective and transparent manner;

(d) ensure that there is open and transparent public consultation, directly or through representative bodies including all levels of panchayats, during the preparation, evaluation and revision of regulations, except where it is of opinion that there is an urgency concerning food safety or public health to make or amend the regulations in which case such consultation may be dispensed with :

Provided that such regulations shall be in force for not more than six months;

(e) ensure protection of the interests of consumers and shall provide a basis for consumers to make informed choices in relation to the foods they consume;

(f) ensure prevention of –

(i) fraudulent, deceptive or unfair trade practices which may mislead or harm the consumer; and

(ii) unsafe or contaminated or sub-standard food.

(3) The provisions of this Act shall not apply to any farmer or fisherman or farming operations or crops or livestock or aquaculture, and supplies used or produced in farming or products of crops produced by a farmer at farm level or a fisherman in his operations.

**CHAPTER IV**  
**GENERAL PROVISIONS AS TO ARTICLES OF FOOD**

**19. Use of food additive or processing aid**

No article of food shall contain any food additive or processing aid unless it is in accordance with the provisions of this Act and regulations made thereunder.

*Explanation.*— For the purposes of this section, “processing aid” means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, used in the processing of raw materials, foods or its ingredients to fulfil a certain technological purpose during treatment or processing and which may result in the non-intentional but unavoidable presence of residues or derivatives in the final product.

**20. Contaminants, naturally occurring toxic substances, heavy metals, etc**

No article of food shall contain any contaminant, naturally occurring toxic substances or toxins or hormone or heavy metals in excess of such quantities as may be specified by regulations.

**21. Pesticides, veterinary drugs residues, antibiotic residues and microbiological counts**

(1) No article of food shall contain insecticides or pesticides residues, veterinary drugs residues, antibiotic residues, solvent residues, pharmacological active substances and micro-biological counts in excess of such tolerance limit as may be specified by regulations.

(2) No insecticide shall be used directly on article of food except fumigants registered and approved under the Insecticides Act, 1968 (46 of 1968).

*Explanation.* – For the purposes of this section, –

(1) “pesticide residue” means any specified substance in food resulting from the use of a pesticide and includes any derivatives of a pesticide, such as conversion products, metabolites, reaction products and impurities considered to be of toxicological significance and also includes such residues coming into food from environment;

(2) “residues of veterinary drugs” include the parent compounds or their metabolites or both in any edible portion of any animal product and include residues of associated impurities of the veterinary drugs concerned.

**22. Genetically modified foods, organic foods, functional foods, proprietary foods, etc.**

Save as otherwise provided under this Act and regulations made thereunder, no person shall manufacture, distribute, sell or import any novel food, genetically modified articles of food, irradiated food, organic foods, foods for special dietary uses, functional foods, nutraceuticals, health supplements, proprietary foods and such other articles of food which the Central Government may notify in this behalf.

*Explanation.*— For the purposes of this section,—

(1) “foods for special dietary uses or functional foods or nutraceuticals or health supplements” means:



- (a) foods which are specially processed or formulated to satisfy particular dietary requirements which exist because of a particular physical or physiological condition or specific diseases and disorders and which are presented as such, wherein the composition of these foodstuffs must differ significantly from the composition of ordinary foods of comparable nature, if such ordinary foods exist, and may contain one or more of the following ingredients, namely:-
- (i) plants or botanicals or their parts in the form of powder, concentrate or extract in water, ethyl alcohol or hydro alcoholic extract, single or in combination;
  - (ii) minerals or vitamins or proteins or metals or their compounds or amino acids (in amounts not exceeding the Recommended Daily Allowance for Indians) or enzymes (within permissible limits);
  - (iii) substances from animal origin;
  - (iv) a dietary substance for use by human beings to supplement the diet by increasing the total dietary intake;
- (b) (i) a product that is labelled as a “Food for special dietary uses or functional foods or nutraceuticals or health supplements or similar such foods” which is not represented for use as a conventional food and whereby such products may be formulated in the form of powders, granules, tablets, capsules, liquids, jelly and other dosage forms but not parenterals, and are meant for oral administration;
- (ii) such product does not include a drug as defined in clause (b) and ayurvedic, sidha and unani drugs as defined in clauses (a) and (h) of section 3 of the Drugs and Cosmetics Act, 1940 (23 of 1940) and rules made thereunder;
- (iii) does not claim to cure or mitigate any specific disease, disorder or condition (except for certain health benefit or such promotion claims) as may be permitted by the regulations made under this Act;
- (iv) does not include a narcotic drug or a psychotropic substance as defined in the Schedule of the Narcotic Drugs and Psychotropic Substances Act, 1985 (61 of 1985) and rules made thereunder and substances listed in Schedules E and EI of the Drugs and Cosmetics Rules, 1945;
- (2) “genetically engineered or modified food” means food and food ingredients composed of or containing genetically modified or engineered organisms obtained through modern biotechnology, or food and food ingredients produced from but not containing genetically modified or engineered organisms obtained through modern biotechnology;
- (3) “organic food” means food products that have been produced in accordance with specified organic production standards;
- (4) “proprietary and novel food” means an article of food for which standards have not been specified but is not unsafe:

Provided that such food does not contain any of the foods and ingredients prohibited under this Act and regulations made thereunder.

### **23. Packaging and labelling of foods.**

- (1) No person shall manufacture, distribute, sell or expose for sale or despatch or deliver

to any agent or broker for the purpose of sale, any packaged food products which are not marked and labelled in the manner as may be specified by regulations:

Provided that the labels shall not contain any statement, claim, design or device which is false or misleading in any particular concerning the food products contained in the package or concerning the quantity or the nutritive value implying medicinal or therapeutic claims or in relation to the place of origin of the said food products.

- (2) Every food business operator shall ensure that the labelling and presentation of food, including their shape, appearance or packaging, the packaging materials used, the manner in which they are arranged and the setting in which they are displayed, and the information which is made available about them through whatever medium, does not mislead consumers.

#### **24. Restrictions of advertisement and prohibition as to unfair trade practices.**

- (1) No advertisement shall be made of any food which is misleading or deceiving or contravenes the provisions of this Act, the rules and regulations made thereunder.
- (2) No person shall engage himself in any unfair trade practice for purpose of promoting the sale, supply, use and consumption of articles of food or adopt any unfair or deceptive practice including the practice of making any statement, whether orally or in writing or by visible representation which -
- (a) falsely represents that the foods are of a particular standard, quality, quantity or grade-composition;
- (b) makes a false or misleading representation concerning the need for, or the usefulness;
- (c) gives to the public any guarantee of the efficacy that is not based on an adequate or scientific justification thereof:

Provided that where a defence is raised to the effect that such guarantee is based on adequate or scientific justification, the burden of proof of such defence shall lie on the person raising such defence.

### **CHAPTER V**

#### **PROVISIONS RELATING TO IMPORT**

#### **25. All imports of articles of food to be subject to this Act.**

- (1) No person shall import into India –
- (i) any unsafe or misbranded or sub-standard food or food containing extraneous matter;
- (ii) any article of food for the import of which a licence is required under any Act or rules or regulations, except in accordance with the conditions of the licence; and
- (iii) any article of food in contravention of any other provision of this Act or of any rule or regulation made thereunder or any other Act.
- (2) The Central Government shall, while prohibiting, restricting or otherwise regulating import of article of food under the Foreign Trade (Development and Regulation) Act, 1992 (22 of 1992), follow the standards laid down by the Food Authority under the provisions of this Act and the Rules and regulations made thereunder.

**CHAPTER VI**  
**SPECIAL RESPONSIBILITIES AS TO FOOD SAFETY**

**26. Responsibilities of the Food business operator.**

- (1) Every food business operator shall ensure that the articles of food satisfy the requirements of this Act and the rules and regulations made thereunder at all stages of production, processing, import, distribution and sale within the businesses under his control.
- (2) No food business operator shall himself or by any person on his behalf manufacture, store, sell or distribute any article of food –
  - (j) which is unsafe; or
  - (iii) which is misbranded or sub-standard or contains extraneous matter; or
  - (iii) for which a licence is required, except in accordance with the conditions of the licence; or
  - (iv) which is for the time being prohibited by the Food Authority or the Central Government or the State Government in the interest of public health; or
  - (v) in contravention of any other provision of this Act or of any rule or regulation made thereunder.
- (3) No food business operator shall employ any person who is suffering from infectious, contagious or loathsome disease.
- (4) No food business operator shall sell or offer for sale any article of food to any vendor unless he also gives a guarantee in writing in the form specified by regulations about the nature and quality of such article to the vendor:

Provided that a bill, cash memo, or invoice in respect of the sale of any article of food given by a food business operator to the vendor shall be deemed to be a guarantee under this section, even if a guarantee in the specified form is not included in the bill, cash memo or invoice.

- (5) Where any food which is unsafe is part of a batch, lot or consignment of food of the same class or description, it shall be presumed that all the food in that batch, lot or consignment is also unsafe, unless following a detailed assessment within a specified time, it is found that there is no evidence that the rest of the batch, lot or consignment is unsafe:

Provided that any conformity of a food with specific provisions applicable to that food shall be without prejudice to the competent authorities taking appropriate measures to impose restrictions on that food being placed on the market or to require its withdrawal from the market for the reasons to be recorded in writing where such authorities suspect that, despite the conformity, the food is unsafe.

**27. Liability of the manufacturers, packers, wholesalers, distributors and sellers**

- (1) The manufacturer or packer of an article of food shall be liable for such article of food if it does not meet the requirements of this Act and the rules and regulations made thereunder.
- (2) The wholesaler or distributor shall be liable under this Act for any article of food

which is–

- (a) Supplied after the date of its expiry; or
- (b) Stored or supplied in violation of the safety instructions of the manufacturer; or
- (c) Unsafe or misbranded; or
- (d) Unidentifiable of manufacturer from whom the article of food have been received; or
- (e) Stored or handled or kept in violation of the provisions of this Act, the rules and regulations made thereunder; or
- (f) received by him with knowledge of being unsafe.

(2) The seller shall be liable under this Act for any article of food which is –

- (a) sold after the date of its expiry; or
- (b) handled or kept in unhygienic conditions; or
- (c) misbranded; or
- (d) unidentifiable of the manufacturer or the distributors from whom such articles of food were received; or
- (e) received by him with knowledge of being unsafe.

### **28. Food recall procedures.**

- (1) If a food business operator considers or has reasons to believe that a food which he has processed, manufactured or distributed is not in compliance with this Act, or the rules or regulations, made thereunder, he shall immediately initiate procedures to withdraw the food in question from the market and consumers indicating reasons for its withdrawal and inform the competent authorities thereof.
- (2) A food business operator shall immediately inform the competent authorities and co-operate with them, if he considers or has reasons to believe that a food which he has placed on the market may be unsafe for the consumers.
- (3) The food business operator shall inform the competent authorities of the action taken to prevent risks to the consumer and shall not prevent or discourage any person from cooperating, in accordance with this Act, with the competent authorities, where this may prevent, reduce or eliminate a risk arising from a food.
- (4) Every food business operator shall follow such conditions and guidelines relating to food recall procedures as the Food Authority may specify by regulations.

## **CHAPTER VII**

### **ENFORCEMENT OF THE ACT**

#### **29. Authorities responsible for enforcement of Act.**

- (1) The Food Authority and the State Food Safety Authorities shall be responsible for the enforcement of this Act.
- (2) The Food Authority and the State Food Safety Authorities shall monitor and verify that the relevant requirements of law are fulfilled by food business operators at all stages of food business.
- (3) The authorities shall maintain a system of control and other activities as appropriate to the circumstances, including public communication on food safety and risk, food safety surveillance and other monitoring activities covering all stages of food business.

- (4) The Food Safety Officers shall enforce and execute within their area the provisions of this Act with respect to which the duty is not imposed expressly or by necessary implication on some other authority.
- (5) The regulations under this Act shall specify which of the Food Safety Officers are to enforce and execute them, either generally or in relation to cases of a particular description or a particular area, and any such regulations or orders may provide for the giving of assistance and information by any authority concerned in the administration of the regulations or orders, or of any provisions of this Act, to any other authority so concerned, for the purposes of their respective duties under them.
- (6) The Commissioner of Food Safety and Designated Officer shall exercise the same powers as are conferred on the Food Safety Officer and follow the same procedure specified in this Act.

### **30. Commissioner of Food Safety of the State.**

- (1) The State Government shall appoint the Commissioner of Food Safety for the State for efficient implementation of food safety and standards and other requirements laid down under this Act and the rules and regulations made thereunder.
- (2) The Commissioner of Food Safety shall perform all or any of the following functions, namely:—
  - (a) prohibit in the interest of public health, the manufacture, storage, distribution or sale of any article of food, either in the whole of the State or any area or part thereof for such period, not exceeding one year, as may be specified in the order notified in this behalf in the Official Gazette;
  - (b) carry out survey of the industrial units engaged in the manufacture or processing of food in the State to find out compliance by such units of the standards notified by the Food Authority for various articles of food;
  - (c) conduct or organise training programmes for the personnel of the office of the Commissioner of Food Safety and, on a wider scale, for different segments of food chain for generating awareness on food safety;
  - (d) ensure an efficient and uniform implementation of the standards and other requirements as specified and also ensure a high standard of objectivity, accountability, practicability, transparency and credibility;
  - (e) sanction prosecution for offences punishable with imprisonment under this Act;
  - (f) such other functions as the State Government may, in consultation with the Food Authority, prescribe.
- (3) The Commissioner of Food Safety may, by Order, delegate, subject to such conditions and restrictions as may be specified in the Order, such of his powers and functions under this Act (except the power to appoint Designated Officer, Food Safety Officer and Food Analyst) as he may deem necessary or expedient to any officer subordinate to him.

### **31. Licensing and registration of food business.**

- (1) No person shall commence or carry on any food business except under a licence.

- (2) Nothing contained in sub-section (1) shall apply to a petty manufacturer who himself manufactures or sells any article of food or a petty retailer, hawker, itinerant vendor or a temporary stall holder or small scale or cottage or such other industries relating to food business or tiny food business operator; but they shall register themselves with such authority and in such manner as may be specified by regulations, without prejudice to the availability of safe and wholesome food for human consumption or affecting the interests of the consumers.
- (3) Any person desirous to commence or carry on any food business shall make an application for grant of a licence to the Designated Officer in such manner containing such particulars and fees as may be specified by regulations.
- (4) The Designated Officer on receipt of an application under sub-section (3), may either grant the licence or after giving the applicant an opportunity of being heard and for reasons to be recorded in writing, refuse to grant a licence to any applicant, if he is satisfied that it is necessary so to do in the interest of public health and shall make available to the applicant a copy of the order:
- Provided that if a licence is not issued within two months from the date of making the application or his application is not rejected, the applicant may start his food business after expiry of the said period and in such a case, the Designated Officer shall not refuse to issue a licence but may, if he considers necessary, issue an improvement notice, under section 32 and follow procedures in that regard.
- (5) Every licence shall be in such form and subject to such conditions as may be specified by regulations.
- (6) A single licence may be issued by the Designated Officer for one or more articles of food and also for different establishments or premises in the same area.
- (7) If the articles of food are manufactured, stored, sold or exhibited for sale at different premises situated in more than one area, separate applications shall be made and separate licence shall be issued in respect of such premises not falling within the same area.
- (8) An appeal against the order of rejection for the grant of licence shall lie to the Commissioner of Food Safety.
- (9) A licence unless suspended or cancelled earlier shall be in force for such period as may be specified by regulations: Provided that if an application for a renewal of licence is made before the expiry of the period of validity of the licence, the licence shall continue to be in force until orders are passed on the application.
- (10) The licence shall subsist for the benefit of the deceased's personal representative or any other member of his family, until the expiry of –
- (a) the period of three months beginning with his death; or
  - (b) such longer period as the Designated Officer may allow.

### **32. Improvement notices.**

- (1) If the Designated Officer has reasonable ground for believing that any food business operator has failed to comply with any regulations to which this section applies, he may, by a notice served on that food business operator (in this Act referred to as an “improvement notice”)–
  - (a) state the grounds for believing that the food business operator has failed to comply with the regulations;

- (b) specify the matters which constitute the food business operator's failure so to comply;
  - (c) specify the measures which, in the opinion of the said Authority, the food business operator must take, in order to secure compliance; and
  - (d) require the food business operator to take those measures, or measures which are at least equivalent to them, within a reasonable period (not being less than fourteen days) as may be specified in the notice.
- (2) If the food business operator fails to comply with an improvement notice, his licence may be suspended.
  - (3) If the food business operator still fails to comply with the improvement notice, the Designated Officer may, after giving the licensee an opportunity to show cause, cancel the licence granted to him:

Provided that the Designated Officer may suspend any licence forthwith in the interest of public health for reasons to be recorded in writing.

- (4) Any person who is aggrieved by –
  - (a) an improvement notice; or
  - (b) refusal to issue a certificate as to improvement; or
  - (c) cancellation or suspension or revocation of licence under this Act, may appeal to the Commissioner of Food Safety whose decision thereon, shall be final.
- (5) The period within which such an appeal may be brought shall be –
  - (a) fifteen days from the date on which notice of the decision was served on the person desiring to appeal; or
  - (b) in the case of an appeal under sub-section (1), the said period or the period specified in the improvement notice, whichever expires earlier.

**Explanation** – For the purpose of this sub-section, the making of the complaint shall be deemed to be the bringing of the appeal.

### 33. Prohibition orders.

- (1) If –
  - (a) any food business operator is convicted of an offence under this Act; and
  - (b) the court by or before which he is so convicted is satisfied that the health risk exists with respect to that food business, the court, after giving the food business operator an opportunity of being heard, may by an order, impose the following prohibitions, namely:-
    - (i) a prohibition on the use of the process or treatment for the purposes of the food business;
    - (ii) a prohibition on the use of the premises or equipment for the purposes of the food business or any other food business of the same class or description;
    - (iii) a prohibition on the use of the premises or equipment for the purposes of any food business.
- (2) The court may, on being satisfied that it is necessary so to do, by an order, impose a prohibition on the food business operator participating in the management of any food business, or any food business of a class or description specified in the order.

- (3) As soon as practicable after the making of an order under sub-section (1) or sub-section (2) (in this Act referred to as a “prohibition order”), the concerned Food Safety Officer shall
- (a) serve a copy of the order on the food business operator; and
- (b) in the case of an order under sub-section (1), affix a copy of the order at a conspicuous place on such premises used for the purposes of the food business, and any person who knowingly contravenes such an order shall be guilty of an offence and be punishable with a fine which may extend to three lakh rupees.
- (4) The concerned Food Safety Officer shall with the approval of the Designated Officer issue a certificate to the effect that the food business operator has taken sufficient measures justifying lifting of the prohibition order, within seven days of his being satisfied on an application made by the food business operator for such a certificate or the said officer shall—
- (a) determine, as soon as is reasonably practicable and in any event within fourteen days, whether or not he is so satisfied; and
- (b) if he determines that he is not so satisfied, give notice to the food business operator of the reasons for that determination.
- (5) A prohibition order shall cease to have effect upon the court being satisfied, on an application made by the food business operator not less than six months after the prohibition order has been passed, that the food business operator has taken sufficient measures justifying the lifting of the prohibition order.
- (6) The court shall give a direction on an application by the food business operator, if the court thinks it proper so to do having regard to all the circumstances of the case, including in particular, the conduct of the food business operator since the making of the order; but no such application shall be entertained if it is not made—
- (a) within six months after the making of the prohibition order; or
- (b) within three months after the making by the food business operator of a previous application for such a direction.

**Explanation** – For the purpose of this section,—

- (i) any reference above shall apply in relation to a manager of a food business as it applies in relation to the food business operator; and any reference to the food business operator of the business, or to the food business operator, shall be construed accordingly;
- (ii) “manager”, in relation to a food business, means any person who is entrusted by the food business operator with the day-to-day running of the business, or any part of the business.

### **34. Emergency prohibition notices and orders.**

- (1) If the Designated Officer is satisfied that the health risk condition exists with



respect to any food business, he may, after a notice served on the food business operator (in this Act referred to as an ‘emergency prohibition notice’), apply to the Commissioner of Food Safety for imposing the prohibition.

- (2) If the Commissioner of Food Safety is satisfied, on the application of such an officer, that the health risk condition exists with respect to any food business, he shall, by an order, impose the prohibition.
- (3) The Designated Officer shall not apply for an emergency prohibition order unless, at least one day before the date of the application, he has served notice on the food business operator of the business of his intention to apply for the order.
- (4) As soon as practicable after the making of an emergency prohibition order, the Designated Officer shall require the Food Safety Officer to –
  - (a) serve a copy of the order on the food business operator of the business; or
  - (b) affix a copy of the order at a conspicuous place on such premises used for the purposes of that business; and any person who knowingly contravenes such an order shall be guilty of an offence and shall be punishable with imprisonment for a term which may extend to two years and with fine which may extend to two lakh rupees.
- (5) An emergency prohibition order shall cease to have effect on the issue by the Designated Officer of a certificate to the effect that he is satisfied that the food business operator has taken sufficient measures for justifying the lifting of such order.
- (6) The Designated Officer shall issue a certificate under subsection (5) within seven days of an application by the food business operator for such a certificate and on his being not satisfied, the said officer shall give notice to the food business operator within a period of ten days indicating the reasons for such decision.

### **35. Notification of food poisoning.**

The Food Authority may, by notification, require registered medical practitioners carrying on their profession in any local area specified in the notification, to report all occurrences of food poisoning coming to their notice to such officer as may be specified.

### **36. Designated Officer.**

- (1) The Commissioner of Food Safety shall, by order, appoint the Designated Officer, who shall not be below the rank of a Sub-Divisional Officer, to be in-charge of food safety administration in such area as may be specified by regulations.
- (2) There shall be a Designated Officer for each district.
- (3) The functions to be performed by the Designated Officer shall be as follows,  
namely :—
  - (a) to issue or cancel licence of food business operators;
  - (b) to prohibit the sale of any article of food which is in contravention of the provisions of this Act and rules and regulations made thereunder;

- (c) to receive report and samples of article of foods from Food Safety Officer under his jurisdiction and get them analysed;
- (d) to make recommendations to the Commissioner of Food Safety for sanction to launch prosecutions in case of contraventions punishable with imprisonment;
- (e) to sanction or launch prosecutions in cases of contraventions punishable with fine;
- (f) to maintain record of all inspections made by Food Safety Officers and action taken by them in the performance of their duties;
- (g) to get investigated any complaint which may be made in writing in respect of any contravention of the provisions of this Act and the rules and regulations made thereunder;
- (h) to investigate any complaint which may be made in writing against the Food Safety Officer; and
- (i) to perform such other duties as may be entrusted by the Commissioner of Food Safety.

### **37. Food Safety Officer.**

- (1) The Commissioner of Food Safety shall, by notification, appoint such persons as he thinks fit, having the qualifications prescribed by the Central Government, as Food Safety Officers for such local areas as he may assign to them for the purpose of performing functions under this Act and the rules and regulations made thereunder.
- (2) The State Government may authorise any officer of the State Government having the qualifications prescribed under sub-section (1) to perform the functions of a Food Safety Officer within a specified jurisdiction.

### **38. Powers of Food Safety Officer.**

- (1) The Food Safety Officer may –
  - (a) take a sample –
    - (i) of any food, or any substance, which appears to him to be intended for sale, or to have been sold for human consumption; or
    - (ii) of any article of food or substance which is found by him on or in any such premises; which he has reason to believe that it may be required as evidence in proceedings under any of the provisions of this Act or of the regulations or orders made thereunder; or
  - (b) seize any article of food which appears to the Food Safety Officer to be in contravention of this Act or the regulations made thereunder; and
  - (c) keep it in the safe custody of the food business operator such article of food after taking a sample; and in both cases send the same for analysis to a Food Analyst for the local area within which such sample has been taken:

Provided that where the Food Safety Officer keeps such article in the safe custody of the food business operator, he may require the food business operator to execute a bond for a sum of money equal to the value of such article with one or

more sureties as the Food Safety Officer deems fit and the food business operator shall execute the bond accordingly.

- (2) The Food Safety Officer may enter and inspect any place where the article of food is manufactured, or stored for sale, or stored for the manufacture of any other article of food, or exposed or exhibited for sale and where any adulterant is manufactured or kept, and take samples of such articles of food or adulterant for analysis.
- (3) Where any sample is taken, its cost calculated at the rate at which the article is usually sold to the public shall be paid to the person from whom it is taken.
- (4) Where any article of food seized under clause (b) of subsection (1) is of a perishable nature and the Food Safety Officer is satisfied that such article of food is so deteriorated that it is unfit for human consumption, the Food Safety Officer may, after giving notice in writing to the food business operator, cause the same to be destroyed.
- (5) The Food Safety Officer shall, in exercising the powers of entry upon, and inspection of any place under this section, follow, as far as may be, the provisions of the Code of Criminal Procedure, 1973 (2 of 1974) relating to the search or inspection of a place by a police officer executing a search warrant issued under that Code.
- (6) Any adulterant found in the possession of a manufacturer or distributor of, or dealer in, any article of food or in any of the premises occupied by him as such and for the possession of which he is unable to account to the satisfaction of the Food Safety Officer and any books of account or other documents found in his possession or control and which would be useful for, or relevant to, any investigation or proceeding under this Act, may be seized by the Food Safety Officer and a sample of such adulterant submitted for analysis to a Food Analyst:

Provided that no such books of account or other documents shall be seized by the Food Safety Officer except with the previous approval of the authority to which he is subordinate.

- (7) Where the Food Safety Officer takes any action under clause (a) of sub-section (1), or sub-section (2), or sub-section (4) or sub-section (6), he shall, call one or more persons to be present at the time when such action is taken and take his or their signatures.
- (8) Where any books of account or other documents are seized under sub-section (6), the Food Safety Officer shall, within a period not exceeding thirty days from the date of seizure, return the same to the person from whom they were seized after copies thereof or extracts there from as certified by that person in such manner as may be prescribed by the Central Government have been taken:

Provided that where such person refuses to so certify and a prosecution has been instituted against him under this Act, such books of account or other documents shall be returned to him only after copies thereof and extracts there from as certified by the court have been taken.

- (9) When any adulterant is seized under sub-section (6), the burden of proving that such adulterant is not meant for purposes of adulteration shall be on the person from whose possession such adulterant was seized.
- (10) The Commissioner of Food Safety may from time to time issue guidelines with

regard to exercise of powers of the Food Safety Officer, which shall be binding:

Provided that the powers of such Food Safety Officer may also be revoked for a specified period by the Commissioner of Food Safety.

### **39. Liability of Food Safety Officer in certain cases.**

Any Food Safety Officer exercising powers under this Act or the rules and regulations made thereunder who –

- (a) vexatiously and without any reasonable ground seizes any article of food or adulterant; or
- (b) commits any other act to the injury of any person without having reason to believe that such act is necessary for the execution of his duty. shall be guilty of an offence under this Act and shall be liable to a penalty which may extend to one lakh rupees:

Provided that in case any false complaint is made against a Food Safety Officer and it is proved so, the complainant shall be guilty of an offence under this Act and shall be punishable with fine which shall not be less than fifty thousand rupees but may extend to one lakh rupees.

### **40. Purchaser may have food analysed.**

- (1) Nothing contained in this Act shall be held to prevent a purchaser of any article of food other than a Food Safety Officer from having such article analysed by the Food Analyst on payment of such fees and receiving from the Food Analyst a report of his analysis within such period as may be specified by regulations:

Provided that such purchaser shall inform the food business operator at the time of purchase of his intention to have such article so analysed:

Provided further that if the report of the Food Analyst shows that the article of food is not in compliance with the Act or the rules or regulations made thereunder, the purchaser shall be entitled to get refund of the fees paid by him under this section.

- (2) In case the Food Analyst finds the sample in contravention of the provisions of this Act and rules and regulations made thereunder, the Food Analysts shall forward the report to the Designated Officer to follow the procedure laid down in section 42 for prosecution.

### **41. Power of search, seizure, investigation, prosecution and procedure thereof**

- (1) Notwithstanding anything contained in sub-section (2) of section 31, the Food Safety Officer may search any place, seize any article of food or adulterant, if there is a reasonable doubt about them being involved in commission of any offence relating to food, and shall thereafter inform the Designated Officer of the actions taken by him in writing:

Provided that no search shall be deemed to be irregular by reason only of the fact that witnesses for the search are not inhabitants of the locality in which the place searched is situated.

- (2) Save as in this Act otherwise expressly provided, provisions of the Code of

Criminal Procedure, 1973 (2 of 1974) relating to search, seizure, summon, investigation and prosecution, shall apply, as far as may be, to all action taken by the Food Safety Officer under this Act.

#### **42. Procedure for launching prosecution.**

- (1) The Food Safety Officer shall be responsible for inspection of food business, drawing samples and sending them to Food Analyst for analysis.
- (2) The Food Analyst after receiving the sample from the Food Safety Officer shall analyse the sample and send the analysis report mentioning method of sampling and analysis within fourteen days to Designated Officer with a copy to Commissioner of Food Safety.
- (3) The Designated Officer after scrutiny of the report of Food Analyst shall decide as to whether the contravention is punishable with imprisonment or fine only and in the case of contravention punishable with imprisonment, he shall send his recommendations within fourteen days to the Commissioner of Food Safety for sanctioning prosecution.
- (4) The Commissioner of Food Safety shall, if he so deems fit decide, within the period prescribed by the Central Government, as per the gravity of offence, whether the matter be referred to,—
  - (a) a court of ordinary jurisdiction in case of offences punishable with imprisonment for a term up to three years; or
  - (b) a Special Court in case of offences punishable with imprisonment for a term exceeding three years where such Special Court is established and in case no Special Court is established, such cases shall be tried by a Court of ordinary jurisdiction.
- (5) The Commissioner of Food Safety shall communicate his decision to the Designated Officer and the concerned Food Safety Officer who shall launch prosecution before courts of ordinary jurisdiction or Special Court, as the case may be; and such communication shall also be sent to the purchaser if the sample was taken under section 40.

### **CHAPTER VIII**

#### **ANALYSIS OF FOOD**

#### **43. Recognition and accreditation of laboratories, research institutions and referral food laboratory**

- (1) The Food Authority may notify food laboratories and research institutions accredited by National Accreditation Board for Testing and Calibration Laboratories or any other accreditation agency for the purposes of carrying out analysis of samples by the Food Analysts under this Act.
- (2) The Food Authority shall, establish or recognise by notification, one or more referral food laboratory or laboratories to carry out the functions entrusted to the referral food laboratory by this Act or any rules and regulations made thereunder.
- (3) The Food Authority may frame regulations specifying –

- (a) The functions of food laboratory and referral food laboratory and the local area or areas within which such functions may be carried out;
- (b) The procedure for submission to the said laboratory of samples of articles of food for analysis or tests, the forms of the laboratory's reports thereon and the fees payable in respect of such reports; and
- (c) Such other matters as may be necessary or expedient to enable the said laboratory to carry out its functions effectively.

#### **44. Recognition of organisation or agency for food safety audit.**

The Food Authority may recognise any organisation or agency for the purposes of food safety audit and checking compliance with food safety management systems required under this Act or the rules and regulations made thereunder.

#### **45. Food Analysts.**

The Commissioner of Food Safety may, by notification, appoint such persons as he thinks fit, having the qualifications prescribed by the Central Government, to be Food Analysts for such local areas as may be assigned to them by the Commissioner of Food Safety:

Provided that no person, who has any financial interest in the manufacture or sale of any article of food shall be appointed to be a Food Analyst under this section:

Provided further that different Food Analysts may be appointed for different articles of food.

#### **46. Functions of Food Analyst.**

- (1) On receipt of a package containing a sample for analysis from a Food Safety Officer or any other person, the Food Analyst shall compare the seal on the container and the outer cover with specimen impression received separately and shall note the conditions of the seal thereon:

Provided that in case a sample container received by the Food Analyst is found to be in broken condition or unfit for analysis, he shall within a period of seven days from the date of receipt of such sample inform the Designated Officer about the same and send requisition to him for sending second part of the sample.

- (2) The Food Analyst shall cause to be analysed such samples of article of food as may be sent to him by Food Safety Officer or by any other person authorised under this Act.
- (3) The Food Analyst shall, within a period of fourteen days from the date of receipt of any sample for analysis, send—
  - (i) where such sample is received under section 38 or section 47, to the Designated Officer, four copies of the report indicating the method of sampling and analysis; and
  - (ii) where such sample is received under section 40, a copy of the report indicating the method of sampling and analysis to the person who had purchased such article of food with a copy to the Designated Officer:

Provided that in case the sample cannot be analysed within fourteen days of its

receipt, the Food Analyst shall inform the Designated Officer and the Commissioner of Food Safety giving reasons and specifying the time to be taken for analysis.

- (4) An appeal against the report of Food Analyst shall lie before the Designated Officer who shall, if he so decides, refer the matter to the referral food laboratory as notified by the Food Authority for opinion.

#### **47. Sampling and analysis.**

- (1) When a Food Safety Officer takes a sample of food for analysis, he shall –
- (a) give notice in writing of his intention to have it so analysed to the person from whom he has taken the sample and to the person, if any, whose name, address and other particulars have been disclosed;
- (b) except in special cases as may be provided by rules made under this Act, divide the sample into four parts and mark and seal or fasten up each part in such a manner as its nature permits and take the signature or thumb impression Of the person from whom the sample has been taken in such place and in such manner as may be prescribed by the Central Government:

Provided that where such person refuses to sign or put his thumb impression, the Food Safety Officer shall call upon one or more witnesses and take his signature or thumb impression, in lieu of the signature or thumb impression of such person;

- (c) (i) send one of the parts for analysis to the Food Analyst under intimation to the Designated Officer;
- (ii) send two parts to the Designated Officer for keeping these in safe custody; and
- (iii) send the remaining part for analysis to an accredited laboratory, if so requested by the food business operator, under intimation to the Designated Officer:

Provided that if the test reports received under sub clauses (i) and (iii) are found to be at variance, then the Designated Officer shall send one part of the sample kept in his custody, to referral laboratory for analysis, whose decision thereon shall be final.

- (2) When a sample of any article of food or adulterant is taken, the Food Safety Officer shall, by the immediate succeeding working day, send the sample to the Food Analyst for the area concerned for analysis and report.
- (3) Where the part of the sample sent to the Food Analyst is lost or damaged, the Designated Officer shall, on a requisition made to him, by the Food Analyst or the Food Safety Officer, despatch one of the parts of the sample sent to him, to the Food Analyst for analysis.
- (4) An article of food or adulterant seized, unless destroyed, shall be produced before the Designated Officer as soon as possible and in any case not later than seven days after the receipt of the report of the Food Analyst:

Provided that if an application is made to the Designated Officer in this behalf by the person from whom any article of food has been seized, the Designated Officer shall by order in writing direct the Food Safety Officer to produce such article before him within such time as may be specified in the order.

- (5) In case of imported articles of food, the authorised officer of the Food Authority

shall take its sample and send to the Food Analyst of notified laboratory for analysis who shall send the report within a period of five days to the authorised officer.

- (6) The Designated Officer, the Food Safety Officer, the authorised officer and the Food Analyst shall follow such procedure as may be specified by regulations.

## CHAPTER IX OFFENCES AND PENALTIES

### 48. General provisions relating to offences.

- (1) A person may render any article of food injurious to health by means of one or more of the following operations, namely:-
- (a) adding any article or substance to the food;
  - (b) using any article or substance as an ingredient in the preparation of the food;
  - (c) abstracting any constituents from the food; or
  - (d) subjecting the food to any other process or treatment, with the knowledge that it may be sold or offered for sale or distributed for human consumption.
- (2) In determining whether any food is unsafe or injurious to health, regard shall be had to –
- (a) (i) the normal conditions of use of the food by the consumer and its handling at each stage of production, processing and distribution;
  - (ii) the information provided to the consumer, including information on the label, or other information generally available to the consumer concerning the avoidance of specific adverse health effects from a particular food or category of foods not only to the probable, immediate or short-term or long-term effects of that food on the health of a person consuming it, but also on subsequent generations;
  - (iii) to the probable cumulative toxic effects;
  - (iv) to the particular health sensitivities of a specific category of consumers where the food is intended for that category of consumers; and
  - (v) also to the probable cumulative effect of food of substantially the same composition on the health of a person consuming it in ordinary quantities;
  - (b) the fact where the quality or purity of the article, being primary food, has fallen below the specified standard or its constituents are present in quantities not within the specified limits of variability, in either case, solely due to natural causes and beyond the control of human agency, then such article shall not be deemed to be unsafe or sub-standard or food containing extraneous matter.

**Explanation** – For the purposes of this section, “injury”, includes any impairment, whether permanent or temporary, and “Injurious to health” shall be construed accordingly.

### 49. General provisions relating to penalty.

While adjudging the quantum of penalty under this Chapter, the Adjudicating Officer or the Tribunal, as the case may be, shall have due regard to the following:-

- (a) The amount of gain or unfair advantage, wherever quantifiable, made as a result of the contravention,
- (b) The Amount of loss caused or likely to cause to any person as a result of the contravention,
- (c) The repetitive nature of the contravention,



- (d) Whether the contravention is without his knowledge, and
- (e) Any other relevant factor,

**50. Penalty for selling food not of the nature or substance or quality demanded.**

Any person who sells to the purchaser's prejudice any food which is not in compliance with the provisions of this Act or the regulations made thereunder, or of the nature or substance or quality demanded by the purchaser, shall be liable to a penalty not exceeding five lakh rupees.

Provided that the persons covered under sub-section (2) of section 31, shall for such non-compliance be liable to a penalty not exceeding twenty five thousand rupees.

**51. Penalty for sub-standard food.**

Any person who whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is sub-standard, shall be liable to a penalty which may extend to five lakh rupees.

**52. Penalty for misbranded food.**

- (1) Any person who whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is misbranded, shall be liable to a penalty which may extend to three lakh rupees.
- (2) The Adjudicating Officer may issue a direction to the person found guilty of an offence under this section, for taking corrective action to rectify the mistake or such article of food shall be destroyed.

**53. Penalty for misleading advertisement.**

- (1) Any person who publishes, or is a party to the publication of an advertisement, which—
  - (a) falsely describes any food; or
  - (b) is likely to mislead as to the nature or substance or quality of any food or gives false guarantee, shall be liable to a penalty which may extend to ten lakh rupees.
- (2) In any proceeding the fact that a label or advertisement relating to any article of food in respect of which the contravention is alleged to have been committed contained an accurate statement of the composition of the food shall not preclude the court from finding that the contravention was committed.

**54.. Penalty for food containing extraneous matter.**

Any person whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption containing extraneous matter, shall be liable to a penalty which may extend to one lakh rupees.

**55. Penalty for failure to comply with the directions of Food Safety Officer.**

If a food business operator or importer without reasonable ground, fails to comply with the requirements of this Act or the rules or regulations or orders issued thereunder, as directed

by the Food Safety Officer, he shall be liable to a penalty which may extend to two lakh rupees.

**56. Penalty for unhygienic or unsanitary processing or manufacturing of food.**

Any person who, whether by himself or by any other person on his behalf, manufactures or processes any article of food for human consumption under unhygienic or unsanitary conditions, shall be liable to a penalty which may extend to one lakh rupees.

**57. Penalty for possessing adulterant.**

- (1) Subject to the provisions of this chapter, if any person who whether by himself or by any other person on his behalf, imports or manufactures for sale, or stores, sells or distribute any adulterant shall be liable –
  - (i) where such adulterant is not injurious to health, to a penalty not exceeding two lakh rupees;
  - (ii) where such adulterant is injurious to health, to a penalty not exceeding ten lakh rupees.
- (2) In a proceeding under sub-section (1), it shall not be a defence that the accused was holding such adulterant on behalf of any other person.

**58. Penalty for contraventions for which no specific penalty is provided.**

Whoever contravenes any provisions of this Act or the rules or regulations made thereunder, for the contravention of which no penalty has been separately provided in this Chapter, shall be liable to a penalty which may extend to two lakh rupees.

**59. Punishment for unsafe food.**

Any person who, whether by himself or by any other person on his behalf, manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is unsafe, shall be punishable,–

- (i) where such failure or contravention does not result in injury, with imprisonment for a term which may extend to six months and also with fine which may extend to one lakh rupees;
- (ii) where such failure or contravention results in a non-grievous injury, with imprisonment for a term which may extend to one year and also with fine which may extend to three lakh rupees;
- (iii) where such failure or contravention results in a grievous injury, with imprisonment for a term which may extend to six years and also with fine which may extend to five lakh rupees;
- (iv) where such failure or contravention results in death, with imprisonment for a term which shall not be less than seven years but which may extend to imprisonment for life and also with fine which shall not be less than ten lakh Rupees.

**60. Punishment for interfering with seized items.**

If a person without the permission of the Food Safety Officer, retains, removes or tampers with any food, vehicle, equipment, package or labelling or advertising material or other thing that has been seized under this Act, he shall be punishable with imprisonment for a term which may extend to six months and also with fine which may extend to two lakh rupees.

### **61. Punishment for false information.**

If a person, in connection with a requirement or direction under this Act, provides any information or produces any document that the person knows is false or misleading, he shall be punishable with imprisonment for a term which may extend to three months and also with fine which may extend to two lakh rupees.

### **62. Punishment for obstructing or impersonating a Food Safety Officer.**

If a person without reasonable excuse, resists, obstructs, or attempts to obstruct, impersonate, threaten, intimidate or assault a Food Safety Officer in exercising his functions under this Act, he shall be punishable with imprisonment for a term which may extend to three months and also with fine which may extend to one lakh rupees.

### **63. Punishment for carrying out a business without licence.**

If any person or food business operator (except the persons exempted from licensing under sub-section (2) of section 31 of this Act), himself or by any person on his behalf who is required to obtain licence, manufacturers, sells, stores or distributes or imports any article of food without licence, shall be punishable with imprisonment for a term which may extend to six months and also with a fine which may extend to five lakh rupees.

### **64. Punishment for subsequent offences.**

- (1) If any person, after having been previously convicted of an offence punishable under this Act subsequently commits and is convicted of the same offence, he shall be liable to—
  - (i) twice the punishment, which might have been imposed on a first conviction, subject to the punishment being maximum provided for the same offence;
  - (ii) a further fine on daily basis which may extend up to one lakh rupees, where the offence is a continuing one; and
  - (iii) his licence shall be cancelled.
- (2) The Court may also cause the offender's name and place of residence, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

### **65. Compensation in case injury of death of consumer**

- (1) Without prejudice to the other provisions of this Chapter, if any person whether by himself or by any other person on his behalf, manufactures or distributes or sells or imports any article of food causing injury to the consumer or his death, it shall be lawful for the Adjudicating Officer or as the case may be, the court to direct him to pay compensation to the victim or the legal representative of the victim, a sum—
  - (a) not less than five lakh rupees in case of death;
  - (b) not exceeding three lakh rupees in case of grievous injury; and
  - (c) not exceeding one lakh rupees, in all other cases of injury:

Provided that the compensation shall be paid at the earliest and in no case later than six months from the date of occurrence of the incident:

Provided further that in case of death, an interim relief shall be paid to the next of the kin within thirty days of the incident.

- (2) Where any person is held guilty of an offence leading to grievous injury or death, the Adjudicating Officer or the court may cause the name and place of residence of the person held guilty, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the Adjudicating Officer or the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.
- (3) The Adjudicating Officer or the court may also,—
  - (a) order for cancellation of licence, re-call of food from market, forfeiture of establishment and property in case of grievous injury or death of consumer;
  - (b) issue prohibition orders in other cases.

#### **66. Offences by companies.**

- (1) Where an offence under this Act which has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that where a company has different establishments or branches or different units in any establishment or branch, the concerned Head or the person in-charge of such establishment, branch, unit nominated by the company as responsible for food safety shall be liable for contravention in respect of such establishment, branch or unit:

Provided further that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

- (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

**Explanation.**—For the purpose of this section,—

- (a) “company” means anybody corporate and includes a firm or other association of individuals; and
- (b) “director” in relation to a firm, means a partner in the firm.

#### **67. Penalty for contravention of provisions of this Act in case of import of articles of food to be in addition to penalties provided under any other Act.**

- (1) Any person who imports any article of food which is in contravention of the provisions of this Act, rules and regulations made thereunder, shall, in addition to any penalty to which he may be liable under the provisions of the Foreign Trade (Development and Regulation) Act, 1992 (22 of 1992) and the Customs Act, 1962

(52 of 1962) be also liable under this Act and shall be proceeded against accordingly.

- (2) Any such article of food shall be destroyed or returned to the importer, if permitted by the competent authority under the Foreign Trade (Development and Regulation) Act, 1992 (22 of 1992) or the Customs Act, 1962 (52 of 1962), or any other Act, as the case may be.

## **CHAPTER X**

### **ADJUDICATION AND FOOD SAFETY APPELLATE TRIBUNAL**

#### **68. Adjudication.**

- (1) For the purposes of adjudication under this Chapter, an officer not below the rank of Additional District Magistrate of the district where the alleged offence is committed, shall be notified by the State Government as the Adjudicating Officer for adjudication in the manner as may be prescribed by the Central Government.
- (2) The Adjudicating Officer shall, after giving the person a reasonable opportunity for making representation in the matter, and if, on such inquiry, he is satisfied that the person has committed the contravention of provisions of this Act or the rules or the regulations made thereunder, impose such penalty as he thinks fit in accordance with the provisions relating to that offence.
- (3) The Adjudicating Officer shall have the powers of a civil court and—
  - (a) all proceedings before him shall be deemed to be judicial proceedings within the meaning of sections 193 and 228 of the Indian Penal Code (45 of 1860);
  - (b) shall be deemed to be a court for the purposes of sections 345 and 346 of the Code of Criminal Procedure, 1973 (2 of 1974).
- (3) while adjudicating the quantum of penalty under this Chapter, the Adjudicating Officer shall have due regard to the guidelines specified in section 49.

#### **69. Power to compound offences.**

- (1) The Commissioner of Food Safety may, by order, empower the Designated Officer, to accept from petty manufacturers who himself manufacture and sell any article of food, retailers, hawkers, itinerant vendors, temporary stall holders against whom a reasonable belief exists that he has committed an offence or contravention against this Act, payment of a sum of money by way of composition of the offence which such person is suspected to have committed.
- (2) On the payment of such sum of money to such officer, the suspected person, if in custody, shall be discharged and no further proceedings in respect of the offence shall be taken against such person.
- (4) The sum of money accepted or agreed to be accepted as composition under sub section (1), shall not be more than one lakh rupees and due regard shall be made to the guidelines specified in section 49:

Provided that no offence, for which punishment of imprisonment has been prescribed under this Act, shall be compounded.

#### **70. Establishment of Food Safety Appellate Tribunal.**

- (1) The Central Government or as the case may be, the State Government may, by notification, establish one or more tribunals to be known as the Food Safety Appellate Tribunal to hear appeals from the decisions of the Adjudicating Officer under section 68.
- (2) The Central Government or the State Government, as the case may be, shall prescribe, the matters and areas in relation to which the Tribunal may exercise jurisdiction.
- (3) The Tribunal shall consist of one person only (hereinafter referred to as the Presiding Officer of the Tribunal) to be appointed, by notification, by the Central Government or the State Government, as the case may be:

Provided that no person shall be qualified for appointment as a Presiding Officer to the Tribunal unless he is or has been a District Judge.

- (4) The qualifications, appointment, term of office, salary and allowances, resignation and removal of the Presiding Officer shall be such as may be prescribed by the Central Government.
- (5) The procedure of appeal and powers of the Tribunal shall be such as may be prescribed by the Central Government.

#### **71. Procedure and powers of the Tribunal.**

- (1) The Tribunal shall not be bound by the procedure laid down by the Code of Civil Procedure, 1908 (5 of 1908) but shall be guided by the principles of natural justice and, subject to the other provisions of this Act and the rules made thereunder, the Tribunal shall have powers to regulate its own procedure including the place at which it shall have its sittings.
- (2) The Tribunal shall have, for the purposes of discharging its functions under this Act, the same powers as are vested in a civil court under the Code of Civil Procedure, 1908 (5 of 1908), while trying a suit, in respect of the following matters, namely:-
  - (a) summoning and enforcing the attendance of any person and examining him on oath;
  - (b) requiring the discovery and production of documents or other electronic records;
  - (c) receiving evidence on affidavits;
  - (d) issuing commissions for the examination of witnesses or documents;
  - (e) reviewing its decisions;
  - (f) dismissing an application for default or deciding it *ex parte*;
  - (g) any other matter which may be prescribed by the Central Government.
- (3) Every proceeding before the Tribunal shall be deemed to be a judicial proceeding within the meaning of sections 193 and 228, and for the purposes of section 196 of

the Indian Penal Code (45 of 1860), it shall be deemed to be a civil court for all the purposes of section 195 and Chapter XXVI of the Code of Criminal Procedure, 1973 (2 of 1974).

- (4) The appellant may either appear in person or authorise one or more legal practitioners or any of its officers to represent his case before the Tribunal.
- (5) The provisions of the Limitation Act, 1963 (36 of 1963), shall, except as otherwise provided in this Act, apply to an appeal made to the Tribunal.
- (6) Any person aggrieved by any decision or order of the Tribunal may file an appeal to the High Court within sixty days from the date of communication of the decision or order of the Tribunal to him on any question of fact or law arising out of such order:

Provided that the High Court may, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal within the said period, allow it to be filed within a further period not exceeding sixty days.

## **72. Civil court not to have jurisdiction.**

No civil court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which an Adjudicating Officer or the Tribunal is empowered by or under this Act to determine and no injunction shall be granted by any court or other authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act.

## **73. Power of court to try cases summarily.**

Notwithstanding anything contained in the Code of Criminal Procedure, 1973 (2 of 1974), all offences not triable by a Special Court, shall be tried in a summary way by a Judicial Magistrate of the first class or by a Metropolitan Magistrate and the provisions of sections 262 to 265 (both inclusive) of the said Code shall, as far as may be, apply to such a trial:

Provided that in the case of any conviction in a summary trial under this section, it shall be lawful for the Magistrate to pass a sentence of imprisonment for a term not exceeding one year:

Provided further that when at the commencement of, or in the course of, a summary trial under this section, it appears to the Magistrate that the nature of the case is such that a sentence of imprisonment for a term exceeding one year may have to be passed or that it is, for any other reason, undesirable to try the case summarily, the Magistrate shall after hearing the parties, record an order to that effect and thereafter recall any witness who may have been examined and proceed to hear or rehear the case in the manner provided by the said Code.

## **74. Special courts and Public Prosecutor.**

- 1) Notwithstanding anything contained in this Act or in the Code of Criminal Procedure, 1973 (2 of 1974), the Central Government or the State Government in their respective jurisdictions may, if consider expedient and necessary in the public interest, for the purposes of the trial of offences relating to grievous injury or death of the consumer for which punishment of imprisonment for more than three years has been prescribed under this Act, constitute, by notification in the Official Gazette, as many Special Courts with the concurrence of the Chief Justice of the High Court as may be necessary for such area or areas and for exercising such jurisdiction, as may be specified in the notification.

- (2) A Special Court may, on its own motion, or on an application made by the Public Prosecutor and if it considers it expedient or desirable so to do, sit for any of its proceedings at any place other than its ordinary place of sitting.
- (3) The trial under this Act of any offence by a Special Court shall have precedence over the trial of any other case against the accused in any other court (not being a Special Court) and shall be concluded in preference to the trial of such other case and accordingly the trial of such other case shall remain in abeyance.
- (4) For every Special Court, the Central Government or the State Government, as the case may be, shall appoint a person to be the Public Prosecutor and may appoint more than one person to be the Additional Public Prosecutors:

Provided that the Central Government or the State Government, as the case may be, may also appoint for any case or class or group of cases, a Special Public Prosecutor.

- (5) A person shall not be qualified to be appointed as a Public Prosecutor or an Additional Public Prosecutor or a Special Public Prosecutor under this section unless he has been in practice as an Advocate for not less than seven years or has held any post, for a period of not less than seven years, under the Union or a State, requiring special knowledge of law.

#### **75. Power to transfer cases to regular courts.**

Where, after taking cognizance of any offence, a Special Court is of the opinion that the offence is not triable by it, it shall, notwithstanding that it has no jurisdiction to try such offence, transfer the case for the trial of such offence to any court having jurisdiction under the Code of Criminal Procedure, 1973 (2 of 1974) and the court to which the case is transferred may proceed with the trial of the offence as if it had taken cognizance of the offence.

#### **76. Appeal.**

- (1) Any person aggrieved by a decision or order of a Special Court may, on payment of such fee as may be prescribed by the Central Government and after depositing the amount, if any, imposed by way of penalty, compensation or damage under this Act, within forty-five days from the date on which the order was served, prefer an appeal to the High Court:

Provided that the High Court may entertain any appeal after the expiry of the said period of forty-five days, if it is satisfied that the appellant was prevented by sufficient cause for filing the appeal within the said period.

- (2) An appeal preferred under this section shall be disposed of by the High Court by a bench of not less than two judges.

#### **77. Time limit for prosecutions.**

Notwithstanding anything contained in this Act, no court shall take cognizance of an offence under this Act after the expiry of the period of one year from the date of commission of an offence:

Provided that the Commissioner of Food Safety may, for reasons to be recorded in writing, approve prosecution within an extended period of up to three years.



### **78. Power of court to implead manufacturer etc.**

Where at any time during the trial of any offence under this Act alleged to have been committed by any person, not being the importer, manufacturer, distributor or dealer of any article of food, the court, is satisfied, on the evidence adduced before it, that such importer, manufacturer, distributor or dealer is also concerned with that offence, then the court may, notwithstanding anything contained in sub-section (3) of section 319 of the Code of Criminal Procedure, 1973 (2 of 1974), or in section 71 of this Act, proceed against him as though a prosecution has been instituted under this Act.

### **79. Magistrate's power to impose enhanced punishment.**

Notwithstanding anything contained in section 29 of the Code of Criminal Procedure, 1973 (2 of 1974), it shall be lawful for the court of ordinary jurisdiction to pass any sentence authorised by this Act, except a sentence of imprisonment for a term exceeding six years in excess of his powers under the said section.

### **80. Defences which may or may not be allowed in prosecution under this Act.**

#### (A) Defence relating to publication of advertisements

(1) In any proceeding for an offence under this Act in relation to the publication of an advertisement, it is a defence for a person to prove that the person carried on the business of publishing or arranging for the publication of advertisements and that the person published or arranged for the publication of the advertisement in question in the ordinary course of that business.

(2) Clause (1) does not apply if the person—

- (a) should reasonably have known that the publication of the advertisement was an offence; or
- (b) had previously been informed in writing by the relevant authority that publication of such an advertisement would constitute an offence; or
- (c) is the food business operator or is otherwise engaged in the conduct of a food business for which the advertisements concerned were published.

#### (B) Defence of due diligence—

(1) In any proceedings for an offence, it is a defence if it is proved that the person took all reasonable precautions and exercised all due diligence to prevent the commission of the offence by such person or by another person under the person's control.

(2) Without limiting the ways in which a person may satisfy the requirements of clause (1), a person satisfies those requirements if it is proved—

- (a) that the commission of the offence was due to—
  - (i) an act or default of another person; or
  - (ii) reliance on information supplied by another person; and
- (b) (i) the person carried out all such checks of the food concerned as were reasonable in all the circumstances; or
  - (ii) it was reasonable in all the circumstances to rely on checks carried out by the person who supplied such food to the person; and
- (c) that the person did not import the food into the jurisdiction from another country; and

- (d) in the case of an offence involving the sale of food, that—
  - (i) the person sold the food in the same condition as and when the person purchased it; or
  - (ii) the person sold the food in a different condition to that in which the person purchased it, but that the difference did not result in any contravention of this Act or the rules and regulations made thereunder; and
- (e) that the person did not know and had no reason to suspect at the time of commission of the alleged offence that the person's act or omission would constitute an offence under the relevant section.
- (3) In sub-clause (a) of clause (2), another person does not include a person who was—
  - (a) an employee or agent of the defendant; or
  - (b) in the case of a defendant which is a company, a director, employee or agent of that company.
- (5) Without limiting the ways in which a person may satisfy the requirements of clause (1) and item (i) of sub-clause (b) of clause (2), a person may satisfy those requirements by proving that—
  - (a) in the case of an offence relating to a food business for which a food safety programme is required to be prepared in accordance with the regulations, the person complied with a food safety programme for the food business s that complies with the requirements of the regulations, or
  - (b) In any other case, the person complied with a scheme (for example, a quality assurance programme or an industry code of practice) that was—
    - (i) Designed to manage food safety hazards and based on national or international standards, codes or guidelines designed for that purpose, and
    - (ii) Documented in some manner.
- (C) Defence of mistaken and reasonable belief not available—

In any proceedings for an offence under the provisions of this Act, it is no defence that the defendant had a mistaken but reasonable belief as to the facts that constituted the offence.

- (D) Defence in respect of handling food—

In proceedings for an offence under section 56, it is a defence if it is proved that the person caused the food to which the offence relates to be destroyed or otherwise disposed of immediately after the food was handled in the manner that was likely to render it unsafe.

- (E) Defences of significance of the nature, substance or quality of food—

It shall be no defence in a prosecution for an offence pertaining to the sale of any unsafe or misbranded article of food to allege merely that the food business operator was ignorant of the nature, substance or quality of the food sold by him or that the purchaser having purchased any article for analysis was not prejudiced by the sale.

## **CHAPTER XI**

### **FINANCE, ACCOUNTS, AUDIT AND REPORTS**

**81. Budget of Food Authority.**

- (1) The Food Authority shall prepare, in such form and at such time in each financial year as may be prescribed by the Central Government, its budget for the next financial year, showing the estimated receipts and expenditure of the Food Authority and forward the same to the Central Government.
- (2) The Food Authority with the prior approval of the Central Government, shall adopt financial regulation which specifies in particular, the procedure for drawing up and implementing the Authority's budget.

**82. Finances of the Food Authority.**

- (1) The Central Government may, after due appropriation, make to the Food Authority grants of such sums of money as the Central Government may think fit.
- (2) The Food Authority on the recommendation of the Central Advisory Committee shall specify a graded fee from licensed food business operators, accredited laboratories or food safety auditors to be charged by the commissioner of Food Safety.

**83. Accounts and audit of Food Authority.**

- (1) The Food Authority shall maintain proper accounts and relevant records and prepare an annual statement of accounts in such form as may be prescribed by the Central Government in consultation with the Comptroller and Auditor General of India.
- (2) The Comptroller and Auditor-General and any person appointed by him in connection with the audit of the accounts of the Food Authority under this Act shall have the same rights and privileges and authority in connection with such audit as the Comptroller and Auditor-General generally has in connection with the audit of Government accounts and, in particular, shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect any of the offices of the Food Authority.
- (3) The accounts of the Food Authority, as certified by the Comptroller and Auditor-General or any other person appointed by him in this behalf, together with the audit report thereon shall be forwarded annually to the Central Government by the Food Authority and the Central Government shall cause the audit report to be laid, as soon as may be after it is received, before each House of Parliament.

**84. Annual report of Food Authority.**

- (1) The Food Authority shall prepare once every year, in such form and at such time as may be prescribed by the Central Government, an annual report giving a summary of its activities during the previous year and copies of the report shall be forwarded to the Central Government and State Governments.
- (2) A copy of the report received under sub-section (1) shall be laid, as soon as may be after it is received, before each House of Parliament.

**CHAPTER XII**  
**MISCELLANEOUS**

**85. Power of Central Government to issue directions to Food Authority and obtain reports and returns.**

- (1) Without prejudice to the foregoing provisions of this Act, the Food Authority shall, in exercise of its powers and in performance of its functions under this Act, be bound by such directions on questions of policy, other than those relating to technical and administrative matters, as the Central Government may give in writing to it from time to time:

Provided that the Food Authority shall, as far as practicable, be given an opportunity to express its views before any direction is given under this subsection.

- (2) If any dispute arises between the Central Government and the Food Authority as to whether a question is or is not a question of policy, the decision of the Central Government thereon shall be final.
- (3) The Food Authority shall furnish to the Central Government such returns or other information with respect to its activities as the Central Government may, from time to time, require.

**86. Power of Central Government to give directions to State Governments.**

The Central Government may give such directions, as it may deem necessary, to a State Government for carrying out all or any of the provisions of this Act and the State Government shall comply with such directions.

**87. Members, officers of Food Authority and Commissioner of Food Safety to be public servants.**

The Members, officers of the Food Authority and the Commissioners of Food Safety and their officers shall be deemed, when acting or purporting to act in pursuance of any of the provisions of this Act, to be public servants within the meaning section 21 of the Indian Penal Code (45 of 1860).

**88. Protection of action taken in good faith.**

No suit, prosecution or other legal proceedings shall lie against the Central Government, the State Government, the Food Authority and other bodies constituted under this Act or any officer of the Central Government, the State Government or any member, officer or other employee of such Authority and bodies or any other officer acting under this

Act for anything which is in good faith done or intended to be done under this Act or the rules or regulations made thereunder.

**89. Overriding effect of this Act over all other food related laws.**

The provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force or in any instrument having effect by virtue of any law other than this Act.

**90. Transfer of existing employees of Central Government Agencies governing various foods related Acts or Orders to the Food Authority.**

On and from the date of establishment of the Food Authority, every employee holding office under the Central Government Agencies administering food laws immediately before that date shall hold his office in the Food Authority by the same tenure and upon the same terms and conditions of service including remuneration, leave, provident fund, retirement and other terminal benefits as he would have held such office if the Food Authority had not been established and shall continue to do so as an employee of the Food Authority or until the expiry of the period of six months from that date if such employee opts not to be the employee of the Food Authority.

**91. Power of Central Government to make rules.**

- (1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the provisions of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-
  - (a) salary, terms and conditions of service of Chairperson and Members other than ex officio Members under subsection (2) and the manner of subscribing to an oath of office and secrecy under sub-section (3) of section 7;
  - (b) qualifications of Food Safety Officer under sub-section (1) of section 37;
  - (c) the manner of taking the extract of documents seized under sub-clause (8) of section 38;
  - (d) determination of cases for referring to appropriate courts and time-frame for such determination under sub-section (4) of section 42;
  - (e) qualifications of Food Analysts under section 45;
  - (f) the manner of sending sample for analysis and details of the procedure to be followed in this regard under subsection (1) of section 47;
  - (g) the procedure to be followed in adjudication of cases under sub-section (1) of section 68;
  - (h) qualifications, terms of office, resignation and removal of Presiding Officer under sub-section (4), the procedure of appeal and powers of Tribunal under sub-section (5) of section 70;
  - (i) any other matter relating to procedure and powers of Tribunal under clause (g) of sub-section (2) of section 71;
  - (j) the fee to be paid for preferring an appeal to the High Court under sub-section (1) of section 76;
  - (k) form and time of preparing budget under sub-section (1) of section 81;
  - (l) form and statement of accounts under sub-section (1) of section 83;
  - (m) the form and time for preparing annual report by Food Authority under sub-section (1) of section 84; and
  - (n) any other matter which is required to be, or may be, prescribed or in respect of which provision is to be made by rules by the Central Government.

## 92. Power of Food Authority to make regulations.

- (1) The Food Authority may, with the previous approval of the Central Government and after previous publication, by notification, make regulations consistent with this Act and the rules made thereunder to carry out the provisions of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such regulations may provide for all or any of the following matters, namely:-
  - (a) salaries and other conditions of service of officers and other employees of the Food Authority under sub-section (3) of section 9;
  - (b) rules of procedure for transaction of business under subsection (5) of section 11;
  - (c) other functions of the Central Advisory Committee under sub-section (2) of section 12;
  - (d) procedure of Scientific Committee and Panels under subsection (4) of section 15;
  - (e) notifying standards and guidelines in relation to articles of food meant for human consumption under sub-section (2) of section 16;
  - (f) procedure to be followed by Food Authority for transaction of business at its meetings under sub-section (1) of section 17;
  - (g) making or amending regulations in view of urgency concerning food safety or public health under clause (d) of sub-section (2) of section 18;
  - (h) limits of additives under section 19;
  - (i) limits of quantities of contaminants, toxic substance and heavy metals, etc., under section 20;
  - (j) tolerance limit of pesticides, veterinary drugs residues, etc, under section 21;
  - (k) the manner of marking and labelling of foods under section 23;
  - (l) form in which guarantee shall be given under sub-section (4) of section 26;
  - (m) conditions and guidelines relating to food recall procedures under sub-section (4) of section 28;
  - (n) regulations relating to functioning of Food Safety Officer under sub-section (5) of section 29;
  - (o) notifying the registering authority and the manner of registration; the manner of making application for obtaining licence, the fees payable therefore and the circumstances under which such licence may be cancelled or forfeited under section 31;
  - (p) the respective areas of which the Designated Officer shall be in-charge for food safety administration under subsection (1) of section 36;
  - (q) procedure in getting food analysed, details of fees etc., under sub-section (1) of section 40;

- (r) functions, procedure to be followed by food laboratories under sub-section (3) of section 43;
- (s) procedure to be followed by officials under sub-section (6) of section 47;
- (t) financial regulations to be adopted by the Food Authority in drawing up its budget under sub-section (2) of section 81;
- (u) issue guidelines or directions for participation in Codex Meetings and preparation of response to Codex matters; and
- (v) any other matter which is required to be, or may be, specified by regulations or in respect of which provision is to be made by regulations.]

### **93. Laying of rules and regulations before Parliament.**

Every rule and every regulation made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or regulation or both Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.

### **94. Power of State Government to make rules.**

- (1) Subject to the powers of the Central Government and the Food Authority to make rules and regulations respectively, the State Government may, after previous publication and with the previous approval of the Food Authority, by notification in the Official Gazette, make rules to carry out the functions and duties assigned to the State Government and the State Commissioner of Food Safety under this Act and the rules and regulations made thereunder.
- (2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—
  - (a) other functions of the Commissioner of Food Safety under clause (f) of sub-section (2) of section 30;
  - (b) earmarking a fund and the manner in which reward shall be paid to a person rendering assistance in detection of offence or apprehension of offender under section 95; and
  - (c) any other matter which is required to be, or may be prescribed or in respect of which provision is to be made by rules by the State Government.
- (3) Every rule made by the State Government under this Act shall be laid, as soon as may be after it is made, before each House of the State Legislature where it consists of two Houses or where such State Legislature consists of one House, before that House.

### **95. Reward by State Government.**

The State Government may empower the Commissioner of Food Safety to order payment of reward to be paid to a person who renders assistance in the detection of the offence or the apprehension of the offender, from such fund and in such manner as may be prescribed by the State Government.

### **96. Recovery of penalty.**

A penalty imposed under this Act, if it is not paid, shall be recovered as an arrear of land revenue and the defaulters licence shall be suspended till the penalty is paid.

### **97. Repeal and savings.**

- (1) With effect from such date as the Central Government may appoint in this behalf, the enactment and Orders specified in the Second Schedule shall stand repealed:

Provided that such repeal shall not affect:—

- (i) the previous operations of the enactment and Orders under repeal or anything duly done or suffered there under; or
  - (ii) any right, privilege, obligation or liability acquired, accrued or incurred under any of the enactment or Orders under repeal; or
  - (ii) any penalty, forfeiture or punishment incurred in respect of any offences committed against the enactment and Orders under repeal; or
  - (iv) any investigation or remedy in respect of any such penalty, forfeiture or punishment, and any such investigation, legal proceedings or remedy may be instituted, continued or enforced and any such penalty, forfeiture or punishment may be imposed, as if this Act had not been passed:
- (2) If there is any other law for the time being in force in any State, corresponding to this Act, the same shall upon the commencement of this Act, stand repealed and in such case, the provisions of section 6 of the General Clauses Act, 1897(10 of 1897) shall apply as if such provisions of the State law had been repealed.
- (3) Notwithstanding the repeal of the aforesaid enactment and Orders, the licences issued under any such enactment or Order, which are in force on the date of commencement of this Act, shall continue to be in force till the date of their expiry for all purposes, as if they had been issued under the provisions of this Act or the rules or regulations made thereunder.
- (4) Notwithstanding anything contained in any other law for the time being in force, no court shall take cognizance of an offence under the repealed Act or Orders after the expiry of a period of three years from the date of the commencement of this Act.

### **98. Transitory provisions for food standards.**

Notwithstanding the repeal of the enactment and Orders specified in the Second Schedule, the standards, safety requirements and other provisions of the Act and the rules and regulations made thereunder and Orders listed in that Schedule shall continue to be in force and operate till new standards are specified under this Act or rules and regulations made thereunder:



Provided that anything done or any action taken under the enactment and Orders under repeal shall be deemed to have been done or taken under the corresponding provisions of this Act and shall continue in force accordingly unless and until superseded by anything done or by any action taken under this Act:

**99. Milk and Milk Products Order, 1992 shall be deemed to be regulations made under this Act.**

- (1) On and from the date of commencement of this Act, the Milk and Milk Products Order, 1992 issued under the Essential commodities Act, 1955 (10 of 1955) shall be deemed to be the Milk and Milk Products Regulations, 1992 issued by the Food Authority under this Act.
- (2) The Food Authority may, with the previous approval of the Central Government and after previous publication, by notification, amend the regulations specified in sub-section (1) to carry out the purposes of this Act.

**100. Amendments to the Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992.**

As from the notified day, the provisions of the Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992 (41 of 1992) (herein referred to as the principal Act) shall apply subject to the following amendments, namely:-

- (a) throughout the principal Act, any reference to “the Prevention of the Food Adulteration Act, 1954 (37 of 1954)” shall be substituted by reference to “the Food Safety and Standards Act, 2006”;
- (b) in section 12 of the principal Act, the reference to “any Food Inspector appointed under section 9 of the Prevention of the Food Adulteration Act, 1954 (37 of 1954)” shall be substituted by reference to “any Food Safety Officer appointed under the Food Safety and Standards Act, 2006”;
- (c) throughout the principal Act, any reference to “Food Inspector” shall be substituted by the expression “the Food Safety Officer”; and
- (d) in section 21 of the principal Act, in sub-section (1), the reference to clause (a) shall be substituted by the following, namely:- “(a) the Designated Officer or the Food Safety Officer directed under sub-section (5) of section 42 of the Food Safety and Standards Act, 2006; or”.

**101. Power to remove difficulties.**

- (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions not inconsistent with the provisions of this Act, as may appear to be necessary, for removing the difficulty:

Provided that no order shall be made under this section after of the expiry of the period of three years from the date of commencement of this Act,

- (2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

**THE FIRST SCHEDULE****[See section 5(1) (e) ]**

## Zone I

1. Andhra Pradesh
2. Goa
3. Karnataka
4. Kerala
5. Maharashtra
6. Orissa
7. Tamil Nadu

## Zone II

1. Haryana
2. Himachal Pradesh
3. Jammu and Kashmir
4. Punjab
5. Uttaranchal
6. Uttar Pradesh

## Zone III

1. Bihar
2. Chhattisgarh
3. Gujarat
4. Jharkhand
5. Madhya Pradesh
6. Rajasthan
7. West Bengal

## Zone IV

1. Arunachal Pradesh
2. Assam
3. Manipur
4. Meghalaya
5. Mizoram
6. Nagaland
7. Sikkim
8. Tripura

## Zone V

1. Andaman and Nicobar Islands
2. Chandigarh
3. Dadra and Nagar Haveli
4. Daman and Diu
5. Delhi
6. Lakshadweep
7. Pondicherry.

**THE SECOND SCHEDULE****(See section 97)**

1. The Prevention of Food Adulteration Act, 1954 (37 of 1954).
2. The Fruit Products Order, 1955.
3. The Meat Food Products Order, 1973.
4. The Vegetable Oil Products (Control) Order, 1947.
5. The Edible Oils Packaging (Regulation) Order, 1998.
6. The Solvent Extracted Oil, De oiled Meal, and Edible Flour (Control) Order, 1967.
7. The Milk and Milk Products Order, 1992.
8. Any other order issued under the Essential Commodities Act, 1955 (10 of 1955) relating to food.

**K.N.CHATURVEDI**  
*Secy. To the Govt. Of India*

**MINISTRY OF HEALTH AND FAMILY WELFARE**  
**(Food Safety and Standards Authority of India)**

Notification

New Delhi, dated the 1<sup>st</sup> August, 2011

F.No. 2-15015/30/2010 Whereas in exercise of the powers conferred by clause (o) of sub section (2) of section 92 read with section 31 of Food Safety and Standards Act, 2006 (34 of 2006) the Food Safety and Standards Authority of India proposes to make Food Safety and Standards Regulations in so far as they relates to Food Safety and Standards(Licensing and Registration of Food Businesses) Regulations, 2011, and;

Whereas these draft Regulations were published in consolidated form at pages 1 to 776 in the Gazette of India Extraordinary Part III – Sec. 4 dated 20<sup>th</sup> October 2010 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of the period of thirty days from the date on which the copies of the Gazette containing the said notification were made available to the public;

And whereas the copies of the Gazette were made available to the public on the 21<sup>st</sup> October 2010;

And whereas objections and suggestions received from the stakeholders within the specified period on the said draft Regulations have been considered and finalized by the Food Safety and Standards Authority of India.

Now therefore, the Food Safety and Standards Authority of India hereby makes the following Regulations, namely,-

**FOOD SAFETY AND STANDARDS (LICENSING AND REGISTRATION OF  
FOOD BUSINESSES),**

**REGULATIONS 2011**

**CHAPTER 1**

**GENERAL**

**1.1: Short title and commencement-**

1.1.1: These regulations may be called the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011.

1.1.2: These regulations shall come into force on or after 5<sup>th</sup> August, 2011

**1.2: Definitions-**

1.2.1: In these regulations unless the context otherwise requires:

1. “Central Licensing Authority” means Designated Officer appointed by the Chief Executive Officer of the Food Safety and Standards Authority of India in his capacity of Food Safety Commissioner.

2. “District” means a revenue district in state and UTs provided that the Commissioner of Food Safety may, for the purpose of this Act declare any local area as a district on the basis of:

- Concentration of specific category of food businesses which may need special attention.
- Risk assessment carried out by the Authority from time to time.
- Any other specific regulatory requirements.

3. “Licensing Authority” means the Designated Officer appointed under section 36 (i) of the Act by the Commissioner of Food Safety of the state or by the Chief Executive Officer of the Food Safety and Standards Authority of India in his capacity of Food Safety Commissioner ;

4. “Petty Food Manufacturer” means any food manufacturer, who (a) manufactures or sells any article of food himself or a petty retailer, hawker, itinerant vendor or temporary stall holder; or distributes foods including in any religious or social gathering except a caterer; or

(b) such other food businesses including small scale or cottage or such other industries relating to food business or tiny food businesses with an annual turnover not exceeding Rs 12 lakhs and/or whose

(i) production capacity of food (other than milk and milk products and meat and meat products) does not exceed 100 kg/ltr per day or

(ii) procurement or handling and collection of milk is up to 500 litres of milk per day or

(iii) slaughtering capacity is 2 large animals or 10 small animals or 50 poultry birds per day or less.

5. “Registering Authority” means Designated Officer/ Food Safety Officer or any official in Panchayat, Municipal Corporation or any other local body or Panchayat in an area, notified as such by the State Food Safety Commissioner for the purpose of registration as specified in these Regulations.

6. “State Licensing Authority” means Designated Officers appointed under Section 36(1) of the Act by the Food Safety Commissioner of a State or UT.

The expressions used in these Regulations but have not been defined herein shall have the meaning ascribed to them in the Act or as provided in the regulations, chapters and Appendices.

## Chapter-2

### LICENSING AND REGISTRATION OF FOOD BUSINESS

#### 2. 1 Registration and Licensing of Food Business

All Food Business Operators in the country will be registered or licensed in accordance with the procedures laid down hereinafter;

##### 2.1.1 Registration of Petty Food Business

(1) Every petty Food Business Operator shall register themselves with the Registering Authority by submitting an application for registration in Form A under Schedule 2 of these Regulations along with a fee as provided in Schedule 3.

(2) The petty food manufacturer shall follow the basic hygiene and safety requirements provided in Part I of Schedule 4 of these Regulations and provide a self attested declaration of adherence to these requirements with the application in the format provided in Annexure-1 under Schedule 2.

(3) The Registering Authority shall consider the application and may either grant registration or reject it with reasons to be recorded in writing or issue notice for inspection, within 7 days of receipt of an application for registration.

(4) In the event of an inspection being ordered, the registration shall be granted by the Registering Authority after being satisfied with the safety, hygiene and sanitary conditions of the premises as contained in Part II of Schedule 4 within a period of 30 days.

If registration is not granted, or denied, or inspection not ordered within 7 days as provided in above sub regulation (3) or no decision is communicated within 30 days as provided in above sub regulation (4), the petty food manufacturer may start its business, provided that it will be incumbent on the Food Business Operator to comply with any improvement suggested by the Registering Authority even later.

Provided that registration shall not be refused without giving the applicant an opportunity of being heard and for reasons to be recorded in writing.

(5) The Registering Authority shall issue a registration certificate and a photo identity card, which shall be displayed at a prominent place at all times within the premises or vehicle or cart or any other place where the person carries on sale/manufacture of food in case of Petty Food Business.

(6)The Registering Authority or any officer or agency specifically authorized for this purpose shall carry out food safety inspection of the registered establishments at least once in a year.

Provided that a producer of milk who is a registered member of a dairy Cooperative Society registered under Cooperative Societies Act and supplies or sells the entire milk to the Society shall be exempted from this provision for registration.

### 2.1.2 License for food business

(1) Subject to Regulation 2.1.1, no person shall commence any food business unless he possesses a valid license.

Provided that any person or Food Business Operator carrying on food business on the date of notification of these Regulations, under a license, registration or permission, as the case may be, under the Acts or Orders mentioned in the Second Schedule of the Act shall get their existing license converted into the license/registration under these regulations by making an application to the Licensing/Registering Authority after complying with the safety requirements mentioned in the Schedule 4 contained under different Parts dependent on nature of business, within one year of notification of these Regulations. In case of difficulty, the licensing authority with the approval of the Food Safety Commissioner in the State will determine the advisability of applying any specific condition keeping in view the need to ensure safety of food and public interest. No license fee will have to be paid for the remaining period of the validity of the earlier license or registration granted under any of the said Acts or Orders. Non-compliance with this provision by a Food Business Operator will attract penalty under section 55 of the Act.

Provided further that any food business operator holding Registration/License under any other Act/Order as specified under schedule 2 of the FSS Act, 2006 with no specific validity or expiry date, and other wise entitled to obtain a license under these regulations, shall have to apply and obtain a Registration/License under these Regulations within one year from the date of notification by paying the applicable fees.

(2)Notwithstanding the provisions contained in Regulation 2.1.2(1) above or in any of the registration or license certificates issued under existing Acts or Orders mentioned in the second schedule of the Act, the Licensing Authority, if it has reason to believe that the Food Business Operator has failed to comply with all or any of the conditions of the existing registration or license or the safety requirements given in Schedule 4, may give appropriate direction to the Food Business Operator to comply with.

(3)License for commencing or carrying on food business, which falls under Schedule 1, shall be granted by the Central Licensing Authority, provided that Food Authority may through notification make such changes or modify the list given in the Schedule I as considered necessary.

(4)License for commencing or carrying on food business, which are not covered under Schedule 1, shall be granted by the concerned State/UT's Licensing Authority.

(5) The Food Business Operator shall ensure that all conditions of license as provided in Annexure 2 of Form B in Schedule 2 and safety, sanitary and hygienic requirements provided in the Schedule 4 contained under different Parts depending on nature of business are complied with at all times .

Provided that the Licensing Authority shall ensure periodical food safety audit and inspection of the licensed establishments through its own or agencies authorized for this purpose by the FSSAI.

Provided further that no person shall manufacture, import, sell, stock, exhibit for distribution or sale any article of food which has been subjected to the treatment of irradiation, except under a license obtained from Department of Atomic Energy under the Atomic Energy (Control of Irradiation of Food) Regulations, 1996.

### 2.1.3 Application for license to the Licensing Authority

An application for the grant of a license shall be made in Form B of Schedule 2 to the concerned Licensing Authority as specified in Regulation 2.1.2 (3) and 2.1.2 (4) and it will be accompanied by a self-attested declaration in the format provided in the Annexure-1 and copies of documents mentioned in the Annexure 2 of Schedule-2 along with the applicable fees prescribed in Schedule 3.

#### 2.1.4 Processing of Application for license

(1) A license shall, subject to the provisions of these Regulations, be issued by the concerned Licensing Authority within a period of 60 days from the date of issue of an application ID number as provided in subsection (3) below.

(2) If, upon scrutiny of the application within 15 days from the date of receipt of the application, the concerned Licensing Authority requires any additional information with respect to an application or if the application is incomplete, the Licensing Authority shall inform the applicant in writing, to furnish such additional information or complete the application, as the case may be, within 30 days from such notice. In case the applicant fails to furnish the required information within the stipulated time of 30 days, the application for license shall stand rejected.

(3) On the receipt of a complete application including the additional information if asked for, the Licensing Authority shall issue an Application ID number to each applicant that will be referred to in all future correspondence between the Licensing Authority and the applicant.

(4) After the issue of Application ID number the Licensing Authority may direct the Food Safety Officer or any other person or agency specially designated for such functions to inspect the premises in the manner prescribed by the Food Safety and Standards Authority of India in accordance with these Regulations. Such Inspecting Officer or person may issue a notice to the applicant, if it deems fit, guiding food business operator on necessary steps to be taken or changes or alteration to be made in the premises in order to ensure general sanitary and hygienic conditions as specified in Schedule 4. The applicant shall carry out the required steps, changes or alterations and intimate the Licensing Authority within 30 days or such period as may be allowed by the Licensing Authority.

(5) Within a period of 30 days from receipt of an inspection report excluding the time taken by the applicant in complying with the advice, if any, given in the inspection report and verification thereof, the concerned Licensing Authority shall consider the application and may either grant license or reject the application.

Provided that before refusing license an applicant shall be given an opportunity of being heard and the reasons for refusal shall be recorded in writing.

(6) The Licensing Authority shall issue a License in Format C under Schedule 2 of these Regulations, a true copy of which shall be displayed at a prominent place at all times within the premises where the Food Business Operator carries on the food business.

#### 2.1.5 Procedure for License in certain local areas

(1) A single license may be issued by the Licensing Authority for one or more articles of food and also for different establishments or premises in the same local area including collection and chilling units run by milk cooperatives or its members.

(2) The Chief Executive Officer of the Food Safety and Standards Authority of India in the capacity of Food Safety Commissioner may appoint a Designated Officer or Food Safety Officer for Central Government organizations like Railways, Defense etc., which have a large number of food establishments, to ensure food safety in those establishments and to ensure that all other conditions laid down for running food business under the Act and these Regulations are complied with. Provided further that the Food Authority may carry out food safety audit of these establishments once in a year through its own or accredited agencies.

#### 2.1.6 Commencement of Business

An applicant may commence his food business and the concerned licensing Authority shall not deny the applicant to commence such business if, from the date of making the completed application, a license is not issued within 60 days or the applicant has not received any intimation of inadequacy under Regulation 2.1.4(2) or inspection report indicating defects from the concerned Licensing Authority under Regulation 2.1.4(4)

### 2.1.7 Validity and Renewal of Registration and License

(1) A Registration or license granted under these Regulations shall be valid and subsisting, unless otherwise specified, for a period of 1 to 5 years as chosen by the Food Business Operator, from the date of issue of registration or license subject to remittance of fee applicable for the period and compliance with all conditions of license.

(2) Any application for the renewal of a registration or license granted under these Regulations shall be made in Form A or B of Schedule 2, as the case may be, not later than 30 days prior to the expiry date indicated in the license.

(3) The Registration or License shall continue to be in force till such time that the orders are passed on the renewal application which in no case shall be beyond 30 days from the date of expiry of registration or license.

(4) Any renewal application filed beyond the period mentioned under Regulation 2.1.7 (2) above but before the expiry date, shall be accompanied by a late fee of Rs 100 per day for each day of delay.

(5) Any Registration or license for which renewal has not been applied for within the period mentioned in Regulation 2.1.7 (2) or 2.1.7 (4) above shall expire and the Food Business Operator shall stop all business activity at the premises. The Food Business Operator will have to apply for fresh Registration or license as provided in Regulation 2.1.1 and 2.1.3 as the case may be, if it wants to restart the business.

(6) Food Business Operator having valid certificate of an accredited food safety auditor or from an agency accredited by Food Authority or any other organisation notified by food Authority for this purpose will not be normally required to be inspected before renewal of license.

Provided that Designated Officer may order an inspection before renewal if considered necessary for reasons to be recorded in writing.

### 2.1.8 Suspension or cancellation of Registration Certificate or license

(1) The Registering or Licensing Authority in accordance with the provisions of section 32 of the Act may, after giving the concerned Food Business Operator a reasonable opportunity of being heard, suspend any registration or license in respect of all or any of the activities for which the registration/license has been granted under these Regulations after recording a brief statement of the reasons for such suspension, if there is reason to believe that the Food Business Operator has failed to comply with the conditions within the period mentioned in any Improvement Notice served under Section 32 of the Act. A copy of such statement shall be furnished to the concerned Food Business Operator whose Registration or license has been suspended.

(2) The registering or Licensing Authority, as the case may be, may direct an inspection of the Food Business Operator's premise(s) within a reasonable period which shall not be less than 14 days from the date of order of suspension.

(3) In the event that the Registering or Licensing Authority is of the opinion, on a review of the inspection report, that the Food Business Operator has still failed to rectify the defects or omissions or comply with the conditions of the improvement notice causing the suspension, such authority may cancel the license/registration of the Food Business Operator after giving him an opportunity to show cause as provided under Section 32 (3) of the Act.

(4) Notwithstanding anything contained in these Regulations, the Registering or Licensing Authority may suspend or cancel any registration or license forthwith in the interest of public health for reasons to be recorded in writing.

(5) A suspension or cancellation of registration or license under these Regulations shall not entitle the Food Business Operator for any compensation or refund of fee(s) paid in respect of the registration certificate or license or renewal thereof.

(6) After a period of 3 months from the date of cancellation under Regulation 2.1.8 (3) above the Food Business Operator may make fresh application for Registration or



license to the concerned authority if all observations made in the improvement notice have been complied with. .

#### 2.1.9 Modifications, Expansion or Changes in premise(s) after grant of license or registration

(1) Food Business Operators shall ensure that the Registering or Licensing Authority always has up-to-date information on their food business establishments and shall inform the relevant Authority of any modifications or additions or changes in product category, layout, expansion, closure, or any other material information based on which the license was granted and such information shall be conveyed before the changes occur.

Provided that any change that alters the information contained in the license certificate shall require an approval or endorsement in license prior to start of business with such changes. The Food Business Operator shall submit the original license to the Licensing Authority along with a fee equivalent to one year license fee for effecting necessary changes. The licensing Authority may approve and issue an amended license incorporating such changes in activities within 30 days from the date of receipt of such information. While approving the afore mentioned changes the concerned registering or Licensing Authority shall take into account the feasibility of carrying on the business and the legal and other relevant aspects of the desired modifications or additions or changes in activities and, if required, may order an inspection of the premises before granting the approval.

#### 2.1.10 Mode of payment:

All fees and charges payable under these regulations shall be paid vide pay order or demand draft or any online mode of payment as may be prescribed in this regard, by the concerned Food Safety Commissioner.

#### 2.1.11 Transfer of registration certificate or License in case of death

(1) In the event of death of the holder of a Registration certificate or license, such certificate or license shall subsist for the benefit of the legal representative or any family member of the deceased or until the expiry of:—

(a) the period of 90 days from the date of death of the holder of a Registration certificate or license; or (b) such longer period as the Designated Officer may allow, for reasons to be recorded in writing.

(2) The legal representative or family member of the deceased holder of the registration certificate or license shall apply to the concerned Authority for transfer of such certificate or license in his favour.

(3) The registering or Licensing Authority, as the case may be, may, after making such enquiry as it may deem fit, either approve the transfer of the Registration certificate or license if satisfied that the applicant is the legal representative, or refuse the request. Provided that the registering or licensing authority shall not refuse the request without giving the applicant an opportunity of being heard and for reasons to be recorded in writing.

(4) Upon filing of application for transfer and pending the decision of the authority, the registration or license shall continue to be in force.

#### 2.1.12 Appeal

(1) A Food Business Operator aggrieved by an order of the Registering Authority or Licensing Authority, as the case may be, under these Regulations may prefer an appeal to the concerned Designated Officer or the Food Safety Commissioner, as per provisions laid down under Section 31(8) and 32 (4) - (5) of the Act.

#### 2.1.13 Return

(1) Every licensee shall on or before 31<sup>st</sup> May of each year, submit a return electronically or in physical form as may be prescribed by the concerned Food Safety Commissioner, in 'Form D-1' provided in Schedule 2 of these Regulations to the Licensing

Authority in respect of each class of food products handled by him during the previous financial year.

Provided however that every licensee engaged in manufacturing of milk and/or milk products shall file half yearly returns for the periods 1<sup>st</sup> April to 30<sup>th</sup> September and 1<sup>st</sup> October to 31<sup>st</sup> March of every financial year in the form D-2, as provided in Schedule-2 of these regulations. Such returns will be filed within a month from the end of the period.

(2) A separate return shall be filed for every license issued under the Regulations, irrespective of whether the same Food Business Operator holds more than one license.

(3) Any delay in filing return beyond 31<sup>st</sup> May of each year shall attract a penalty of Rs 100 per day of delay.

#### 2.1.14 Food Business Operator to be bound by directions or order

(1) Every Food Business Operator to whom any direction or order is issued in pursuance of any provisions of this regulation shall be bound to comply with such directions or regulation and any failure on the part of the Food Business Operator to comply with such direction or order shall be deemed to be contravention of the provisions of these Regulations and will attract legal action under the provisions of the Act.

(2) Guarantee Every manufacturer, distributor or dealer selling an article of food to a vendor shall give either separately or in the bill, cash memo, or label a warranty in Form E. (*Refer Form A for form of Guarantee*)

#### 2.1.15 Power of State/UT governments to constitute advisory committee

The state/UT Governments, may, if required designate an existing advisory committee at panchayat/district/ state level or where such a committee does not exist, constitute an advisory committee to assist, aid or advise on any matter concerning food safety.

#### 2.1.16: Jurisdiction of Designated officer

The Commissioner of Food Safety shall, by an order, appoint the Designated officer, who shall not be below the rank of a Sub- Divisional Officer, to be in-charge of food safety administration for each district as defined under regulation 1.2.1 (2)

## SCHEDULE 1

[See Regulation 2.1.2 (3)]

List of food business falling under the purview of Central Licensing Authority

- I. Dairy units including milk chilling units equipped to handle or process more than 50,000 litres of liquid milk/day or 2500 MT of milk solid per annum.
- II. Vegetable oil processing units and units producing vegetable oil by the process of solvent extraction and refineries including oil expeller unit having installed capacity more than 2 MT per day.
- III. All slaughter houses equipped to slaughter more than 50 large animals or 150 or more small animals including sheep and goats or 1000 or more poultry birds per day.
- IV. Meat processing units equipped to handle or process more than 500 kg of meat per day or 150 MT per annum.
- V. All food processing units other than mentioned under (I) to (IV) including relabellers and repackers having installed capacity more than 2 MT/day except grains, cereals and pulses milling units.
- VI. 100 % Export Oriented Units.
- VII. All Importers importing food items including food ingredients and additives for commercial use.
- VIII. All food business operators manufacturing any article of food containing ingredients or substances or using technologies or processes or combination thereof whose safety has not been established through these regulations or which do not have a history of safe use or food containing ingredients which are being introduced for the first time into the country.
- IX. Food Business Operator operating in two or more states.
- X. Food catering services in establishments and units under Central government Agencies like Railways, Air and airport, Seaport, Defence etc.

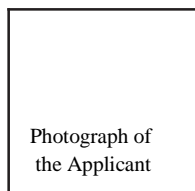
## SCHEDULE 2

[See Regulation 2.1.1 and Regulation 2.1.7]

## Form 'A'

Application for Registration / Renewal of Registration under Food Safety and Standards Act, 2006

Kind of business:



- Permanent/Temporary Stall holder
- Hawker (Itinerant / Mobile food vendor)
- Home based canteens/dabba wallas
- Petty Retailer of snacks/tea shops
- Manufacturer/Processor
- Re Packer
- Food stalls/arrangements in Religious gatherings, fairs etc
- Milk producers (who are not member of dairy co operative society)/
- milk vendor
- Dhaba
- Fish/meat/poultry shop/seller
- Other(s), please specify: \_\_\_\_\_
- 

(a) Name of the Applicant/Company:

\_\_\_\_\_

(b) Designation

- Individual
- Partner
- Proprietor
- Secretary of dairy co-operative society.
- Others (Please specify)

(c) Proof of Identity of applicant:

\_\_\_\_\_

[Note: Please submit a copy of photo ID like Driving License, Passport, Ration Card or Election ID card]

(d) Correspondence address:

\_\_\_\_\_

Tel No: \_\_\_\_\_ Mobile No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_ Email: \_\_\_\_\_

[Note: In case the number(s) are a PP or common number(s), please specify the name of the contact person as well]

(e) Area or Location where food business is to be conducted/Address of the premises:

\_\_\_\_\_

\_\_\_\_\_

(f) Description of the food items proposed to be Manufactured or sold:

S.No.	Name of Food category	Quantity in Kg per day or M.T. per annum
-------	-----------------------	--

---

Please attach separate sheet if required

(g) Total Annual turnover from the food business, if existing, alongwith any supporting document(s) showing proof of income (*\*In case of renewal*):

---

(h) In case of new business - intended date of start:

---

(i) In case of seasonal business, state the opening and closing period of the year:\_\_\_\_\_

(j) Source of water supply:

Public supply    Private supply    Any other source

(k) Whether any electric power is used in manufacture of the food items:

Yes

No

If yes, please state the exact HP used or sanctioned Electricity load:

---

(l) I/We have forwarded a sum of Rs.....towards registration fees according to the provision of the Food Safety and Standards (Licensing and Registration) Regulations, 2011 vide:

Demand Draft no. (payable to \_\_\_\_\_)

Cash

(Signature of the Applicant)

Form 'B'

[See Regulation 2.1.2, Regulation 2.1.3 and Regulation 2.1.7]

Application for License / Renewal of license under Food Safety and

Standards Act, 2006 Kind of business (Please tick more than one, if applicable):

- Manufacturing/Processing including sorting, grading etc.
- Milk Collection/chilling
- Slaughter House
- Solvent extracting unit
- Solvent extracting plant equipped with pre cleaning of oil seeds or pre expelling of oil.
- Solvent extracting and oil refining plant.
- Packaging
- Relabeling (manufactured by third party under own packing and labeling)
- Importing
- Storage/Warehouse/Cold Storage
- Retail Trade
- Wholesale Trade
- Distributor/Supplier
- Transporter of food
- Catering
- Dhabha or any other food vending establishment
- Club /canteen
- Hotel
- Restaurant

Other(s), please specify: \_\_\_\_\_

1. Name of the Company/Organization:  
\_\_\_\_\_
2. Registered Office Address:  
\_\_\_\_\_
3. Address of Premise for which license is being applied  
\_\_\_\_\_
4. Name and/or designation, qualification and address of technically qualified person in charge of operations as required under Regulation .....  
Name:  
Qualification:  
Address:  
Telephone  
Number(s): Mobile  
no:  
Email:  
Photo Identity card no and expiry date
5. Name and/or designation, address and contact details of person responsible for complying with conditions of license (if different from 4 Above):  
Name:  
Address:  
Telephone Number(s):  
Mobile no  
Email:  
Photo Identity card no and expiry  
date
6. Correspondence address (if different from 3 above)  
\_\_\_\_\_

7. TelNo.: \_\_\_\_\_ Mobile No.: \_\_\_\_\_  
Fax No.: \_\_\_\_\_ Email: \_\_\_\_\_

8. Food items proposed to be manufactured:

S.No.	Name of Food Item	Quantity in Kg per day or M.T. per annum
-------	-------------------	--

If required attach separate sheet

If already having valid license- mention annual quantity of each food category manufactured during last three years

9. Installed Capacity food product wise (per day) \_\_\_\_\_

10. For Dairy units

(i) Location and installed capacity of Milk Chilling Centers (MCC) / Bulk Milk Cooling Centers (BMCs)/ Milk Processing Unit/ Milk Packaging Unit in litres owned or managed by the applicant.

S.No.	Name of Food Item	Quantity in Kg per day or M.T. per annum
-------	-------------------	--



If required attach separate sheet

(ii) Average Quantity of milk per day to be used/handled in

a. in lean season \_\_\_\_\_

b. in flush season \_\_\_\_\_

(iii) Milk products to be manufactured and their manufacturing capacity (tones/year) 1).....

2).....

3).....

11. For Solvent -Extracted Oil, De oiled meal and Edible Flour:

(i) Details of proposed business

Name of Oil bearing material	From seed or nut or cake	Solvent -Extracted Oil, De oiled meal and Edible Flour						Vegetable Oil
		Crude	Neutralized & Bleached	Neutralized meal	Refined	De oiled	Edible Flour	

If already having valid license- mention annual quantity of each product manufactured during last three years

ii) Name and address of factory or factories used by the miller or solvent extractor for processing oil bearing material produced or procured by him or for refining solvent extracted Oil produced by him.

12. Sanctioned electricity load or HP to be used \_\_\_\_\_

13. Whether unit is equipped with an analytical laboratory

If \_\_\_\_\_ yes \_\_\_\_\_ the \_\_\_\_\_ details thereof: \_\_\_\_\_

14. In case of renewal or transfer of license granted under other laws as per proviso to Regulation 5(1) - period for which license required ( 1 to 5 years) \_\_\_\_\_

15. I/We have forwarded a sum of Rs. \_\_\_\_\_ towards License fees according to the provision of the Food Safety and Standards Regulations, 2011 vide:

Demand Draft no (payable to .....)

(Signature of the applicant/authorized signatory)

*Annexure I.*

## Declaration

I, Mr./Ms./Mrs. \_\_\_\_\_ S/o / D/o Mr. \_\_\_\_\_,R/o

\_\_\_\_\_ do hereby solemnly affirm and declare that all information and particulars furnished here by me are true and correct to the best of my knowledge. I further declare that the food business conducted or proposed to be conducted by/through me conforms/shall conform to the Food Safety and Standards Act, Regulations/ Bye-laws enacted there under, and specifically to the Guidelines on Hygiene and Sanitary Practices provided under Schedule 4 of the Registration and Licensing Regulations published by the Food Safety and Standards Authority of India or any person authorized on its behalf from time to time.

Dated:

(Sign  
ature)

*Annexure-2*

## Documents to be enclosed for new application for license to State/Central Licensing Authority

1. Form-B duly completed and signed (in duplicate) by the proprietor/ partner or the authorised signatory
2. Blueprint/layout plan of the processing unit showing the dimensions in metres/square metres and operation-wise area allocation.
3. List of Directors with full address and contact details
4. Name and List of Equipments and Machinery along with the number, installed capacity and horse power used.
5. Photo I.D and address proof issued by Government authority of Proprietor/Partner/Director(s)/Authorised Signatory.
6. List of food category desired to be manufactured. ( In case of manufacturers).
7. Authority letter with name and address of responsible person nominated by the manufacturer along with alternative responsible person indicating the powers vested with them viz assisting the officers in inspections, collection of samples, packing & dispatch.
8. Analysis report (Chemical & Bacteriological) of water to be used as ingredient in food from a recognized/ public health laboratory to confirm the portability indicating the name of authorized representative of Lab who collected the sample and date of collecting sample
9. Proof of possession of premises. (Sale deed/ Rent agreement/ Electricity bill, etc.)
10. Partnership Deed/Affidavit/Memorandum & Articles of Association towards the constitution of the firm.
11. Copy of certificate obtained under Coop Act - 1861/Multi State Coop Act - 2002 in case of Cooperatives.
12. NOC from manufacturer in case of Re-labellers
13. Food Safety Management System plan or certificate if any,
14. Source of milk or procurement plan for milk including location of milk collection centres etc in case of Milk and Milk Products processing units.
15. Source of raw material for meat and meat processing plants.
16. Pesticide residues report of water to be used as ingredient in case of units manufacturing Packaged drinking water, packaged Mineral water and/or carbonated water from a recognised/ public health laboratory indicating the name of authorised representative of Lab who collected the sample and date of collecting sample, including source of raw water and treatment plan.
17. Recall plan wherever applicable, with details on whom the product is distributed.
18. NOCs from Municipality or local body and from State Pollution Control Board except in case of notified industrial area.

## Documents to be included for renewal or transfer of license given under other existing laws prior to these regulations

1. Any change in documents or information provided during grant of previous license.
2. Certificate or Plan of Food Safety Management System being adopted (for units under Central Licensing it has to be a certificate from accredited agencies).
3. List of workers with their medical fitness certificates.
4. Name, qualification and details of technical personnel in charge of operation.

*Annexure 3*

## Conditions of License

All Food Business Operators shall ensure that the following conditions are complied with at all times during the course of its food business.

Food Business Operators shall:

1. Display a true copy of the license granted in Form C shall at all times at a prominent place in the premises.
2. Give necessary access to Licensing Authorities or their authorised personnel to the premises
3. Inform Authorities about any change or modifications in activities /content of license.
4. Employ at least one technical person to supervise the production process. The person supervising the production process shall possess at least a degree in Science with Chemistry/Bio Chemistry/Food and Nutrition/ Microbiology or a degree or diploma in food technology/ Dairy technology/ dairy microbiology/ dairy chemistry/ dairy engineering/ oil technology /veterinary science /hotel management & catering technology or any degree or diploma in any other discipline related to the specific requirements of the business from a recognized university or institute or equivalent.
5. Furnish periodic annual return (1<sup>st</sup> April to 31<sup>st</sup> March), within upto 31<sup>st</sup> May of each year. For collection/ handling/ manufacturing of Milk and Milk Products half yearly returns also to be furnished as specified (1<sup>st</sup> April to 31<sup>st</sup> September before 30<sup>th</sup> November and 1<sup>st</sup> October to 31<sup>st</sup> March).
6. Ensure that no product other than the product indicated in the license/ registration is produced in the unit.
7. Maintain factory's sanitary and hygienic standards and worker's Hygiene as specified in the Schedule - 4 according to the category of food business.
8. Maintain daily records of production, raw materials utilization and sales separately.
9. Ensure that the source and standards of raw material used are of optimum quality.
10. Food Business Operator shall not manufacture, store or expose for sale or permit the sale of any article of food in any premises not effectively separated to the satisfaction of the licensing authority from any privy, urinal, sullage, drain or place of storage of foul and waste matter.
11. Ensure Clean-In-Place systems (wherever necessary) for regular cleaning of the machine & equipments.
12. Ensure testing of relevant chemical and/or microbiological contaminants in food products in accordance with these regulations as frequently as required on the basis of historical data and risk assessment to ensure production and delivery of safe food through own or NABL accredited /FSSAI notified labs at least once in six months.
13. Ensure that as much as possible the required temperature shall be maintained throughout the supply chain from the place of procurement or sourcing till it reaches the end consumer including chilling, transportation, storage etc.
14. The manufacturer/importer/distributor shall buy and sell food products only from, or to, licensed/registered vendors and maintain record thereof.

## Other conditions

1. Proprietors of hotels, restaurants and other food stalls who sell or expose for sale savouries, sweets or other articles of food shall put up a notice board containing separate lists of the articles which have been cooked in ghee, edible oil, vanaspati and other fats for the information of the intending purchasers.
2. Food Business Operator selling cooked or prepared food shall display a notice board containing the nature of articles being exposed for sale
3. Every manufacturer [including ghani operator] or wholesale dealer in butter, ghee, vanaspati, edible oils, Solvent extracted oil, de oiled meal, edible flour and any other fats shall maintain a register showing the quantity of manufactured, received or sold, nature of

oil seed used and quantity of de-oiled meal and edible flour used etc. as applicable and the destination of each consignment of the substances sent out from his factory or place of business, and shall present such register for inspection whenever required to do so by the Licensing Authority.

4. No producer or manufacturer of vegetable oil, edible oil and their products shall be eligible for license under this Act, unless he has own laboratory facility for analytical testing of samples.
5. Every sale or movement of stocks of solvent-extracted oil, 'semi refined' or 'raw grade I', edible groundnut flour or edible coconut flour, or both by the producer shall be a sale or movement of stocks directly to a registered user and not to any other person, and no such sale or movement shall be effected through any third party.
6. Every quantity of solvent-extracted oil, edible groundnut flour or edible coconut flour, or both purchased by a registered user shall be used by him in his own factory entirely for the purpose intended and shall not be re-sold or otherwise transferred to any other person:  
Provided that nothing in this sub-clause shall apply to the sale or movement of the following:—
  - (i) karanjia oil;
  - (ii) kusum oil;
  - (iii) mahua oil;
  - (iv) neem oil;
  - (v) (vi) tamarind seed oil.
  - (vii) edible groundnut flour bearing the I.S.I.Certification Mark
  - (viii) edible coconut flour bearing the I.S.I.Certification Mark
7. No Food Business Operator shall sell or distribute or offer for sale or dispatch or deliver to any person for purpose of sale any edible oil which is not packed, marked and labelled in the manner specified in the regulations unless specifically exempted from this condition vide notification in the official Gazette issued in the public interest by Food Safety Commissioners in specific circumstances and for a specific period and for reasons to be recorded in writing.





## 'FORM D-2'

(See Regulation 2.1.13)

Half Yearly Return for Milk and  
Milk Products For the  
period ending

a) 1st April to 30th September

b) 1st October to 31 March

1. Name and address of Licensee:-
2. Address of the authorized premises for the manufacturing milk and milk products:
3. License No. .... date of issue/validity.....
4. Procurement

Type of milk	Total Qty MT	Total fat MT	Average		Total SNF content MT	Price Rs / kg of milk	Price Rs/kg of fat	Price Rs/kg of SNF
			Fat%	SNF%				
1	2	3	4		5	6	7	8
			a	b				
A) Own Sources								
Cow								
Buffalo								
Mixed								
B) Milk supplied by other dairies								
Cow								
Buffalo								
Mixed								
Total A+B								

## 5. Purchase of Milk Products

Name of Milk Products	Source of purchase (MT)*	Total quantity purchased	Average Fat %	Average SNF%	Quantity used (MT)*	Closing balance (MT)*
1. SMP						
2. WMP						
3. Butter Oil						
4. White Butter						

\*Metric Tones



## 6. Reconstitution

Utilized for making liquid milk or milk products	Whole milk powder (MT)*	Skimmed milk powder (MT)*	Butter oil (MT)*	White butter (MT)*
All liquid milks for sale				
In lean season (Apr-Sep)				
In flush season (Oct-Mar)				
Other milk products				
In lean season (Apr-Sep)				
In flush season (Oct-Mar)				
Sub Total				
Grand Total				

## 7. Details of Milk products Manufactured, Sold and Stock position.

Product Name (Please list out the name of all products mentioned below in this form)	Opening stock (MT)	Production of Milk and milk products (MT)	Average		Sales of milk products	Closing stock (MT)
			Fat%	SNF%		
1	2	3	4	5	6	

Total

## 8. Conversion of Milk into Milk Products outsourced to other dairies

Type of milk	Quantity (TLPD)* SNF %	Average Fat %	Average	Name of converted products	Quantity (MT)
Cow Milk					
Buffalo Milk					
Mixed Milk					
Concentrated Milk					

## 9. Milk Marketing

	Type of Milk	Quantity sold *(TLPD)	Average Fat %	Average SNF%	Consumer price Rs per litre
a) Milk sold in Retail					
Sub total A					
b) Milk sold I bulk to other dairies					
Sub total B					
Grand Total A+B					

\*TLPD Thousand liters per day

## 10. Statement showing quantities of milk products manufactured and exported in Tonnes with their sale value during the period .....

Name of the milk products	Size of the can/ bottle/any other package (like PP) or bulk package.	Qty. in M T	Avg.fat/ SNF for milk products (%)		Sale Price/kg or per unit of packing Rs	Value in Rs.	Qty exported/ imported in KG	Name of the country or port of export	Rate per kg or / unit of packing C.I.F/ FOB Rs.	Value in Rs.	Remarks
			4 a	4 b							
1	2	3	4 a	4 b	5	6	7	8	9	10	11

Date:

Signature of the

Licensee A register detailing the above information shall be maintained by each licensee for inspections. '

Name of Milk Products required to be listed in table 8 coloumn no. 1.

Cream	Voghurt
White butter	Butter milk
Table butter	Lassi
Butter oil	Paeer
Ghee	Khoa
Skimmed milk powder	Khoa sweets
Whole milk powder	Flavored milk pasteurized
Dairy whitener	Flavoured milk sterilized
Infant Milk Food	UHT-MILK
Infant formula	Ice cream
Malted milk food	Casein
Dahi/curd	lactorse
Shrikhand/Amarkhand	Whey powder
Butter milk powder	Any other milk products as lowed in license
Condesned milk	

---



---

FORM E  
Form of  
Guarantee  
(Refer Regulation 2.1.14(2))

Invoice No. \_\_\_\_\_

Place: \_\_\_\_\_

From:

Date: \_\_\_\_\_

To:

---

Date of sale	Nature and quality of article/brand name, if any	Batch No or Code No.	Quantity	Price
1	2	3	4	5

---

I/We hereby certify that food/foods mentioned in this invoice is/are warranted to be of the nature and quality which it/ these purports/purported to be.

Signature of the  
manufacturer/Distributor/Dealer

Name and address of Manufacturer/Packer

(in case of packed article) License No. (wherever applicable)

SCHEDULE - 3  
(See Regulation 2.1.3)  
FEE FOR GRANT/ RENEWAL OF LICENSE  
REGISTRATION / LICENSE FEE PER ANNUM IN RUPEES

1.	Fees for Registration	Rs 100/-
2.	Fees for License issued by Central Licensing Authority:	Rs 750/-
3.	Fees for License issued by State Licensing Authority: 1. Manufacturer /Miller	
	(i) Above 1MT per day Production or 10,001 to 50,000 LPD of milk or 501 to 2500 MT of milk solids per annum	Rs. 5000/-
	(ii) Below 1 MT of Production or 501 to 10,000 LPD of milk or 2.5 MT to 500 MT of milk solids per annum	Rs.3000/-
	2. Hotels -3 Star and above	Rs. 5000/-
3.	All Food Service providers including restaurants/boarding houses, clubs etc. serving food, Canteens (Schools, Colleges, Office, Institutions), Caterers, Banquet halls with food catering arrangements, food vendors like dabba wallas etc	Rs. 2000/-
4.	Any other Food Business Operator The fees paid by any applicant for a license shall not be refundable under any circumstances.	Rs. 2000/-

Issue of Duplicate registration or License

- (1) Where a registration certificate or license is lost, destroyed, torn, defaced or mutilated, the applicant may apply for a duplicate copy of the registration certificate or license during the validity period, accompanied with a fee amounting to 10% of the applicable License fee.
- (2) On receipt of such an application, the Licensing Authority shall grant a duplicate copy of the registration certificate or license, as the case may be to the applicant with the word "Duplicate" appearing prominently thereon.

Mode of Payment

The payment shall be made by the Food Business Operator through Bank draft or online transfer or treasury chalan or any other suitable means as specified by the Licensing Authority.

Schedule 4  
(See Regulation 2.1.2)

General Hygienic and Sanitary practices to be followed by Food Business operators

It is hereby recognized and declared as a matter of legislative determination that in the field of human nutrition, safe, clean, wholesome food - is indispensable to the health and welfare of the consumer of the country; that - food is a perishable commodity susceptible to contamination and adulteration; - and that - basic sanitary and hygienic conditions are deemed to be necessary for the production and distribution of milk - Meat products, service establishments etc.

The establishment in which food is being handled, processed, manufactured, stored, distributed by the food business operator whether holder of registration certificate or a license as per the norms laid down in these regulations and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standards as specified below. It shall also be deemed to be the responsibility of the food business operator to ensure adherence to necessary requirements.

These are the basic - compulsory requirements for ensuring safety of the food manufactured in any premise and FBOs shall continuously try to improve the sanitary and hygienic conditions at the premises with a goal of attaining India HACCP standards within a - previously determined period.

Part I - General Hygienic and Sanitary practices to be followed by Petty Food Business Operators applying for Registration  
(See Regulation 2.1.1(2))

In case inspection of the units is directed by the Registering or Licensing Authority, the inspection should confirm that the following measures are adopted by the unit as far as possible:

**SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD ANUFACTURER/  
PROCESSOR/HANDLER**

The place where food is manufactured, processed or handled shall comply with the following requirements:

1. The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.
2. The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.
3. The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.
4. Floors, Ceilings and walls must be maintained in a sound condition. They should be smooth and easy to clean with no flaking paint or plaster.
5. The floor and skirted walls shall be washed as per requirement with an effective disinfectant the premises shall be kept free from all insects. No spraying shall be done during the conduct of business, but instead fly swats/ flaps should be used to kill spray flies getting into the premises. Windows, doors and other openings shall be fitted with net or screen, as appropriate to make the premise insect free The water used in the manufacturing shall be potable and if required chemical and bacteriological examination of the water shall be done at regular intervals at any recognized laboratory.
6. Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.
7. Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.
8. No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of food. (Copper or brass vessels shall have proper lining).
9. All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure freedom from growth of mould/ fungi and infestation.
10. All equipments shall be placed well away from the walls to allow proper inspection.
11. There should be efficient drainage system and there shall be adequate provisions for disposal of refuse.
12. The workers working in processing and preparation shall use clean aprons, hand gloves, and head wears.
13. Persons suffering from infectious diseases shall not be permitted to work. Any cuts or wounds shall remain covered at all time and the person should not be allowed to come in direct contact with food.
14. All food handlers shall keep their finger nails trimmed, clean and wash their hands with soap, or detergent and water before commencing work and every time after using toilet. Scratching of body parts, hair shall be avoided during food handling processes.
15. All food handlers should avoid wearing, false nails or other items or loose jewellery that might fall into food and also avoid touching their face or hair.
16. Eating, chewing, smoking, spitting and nose blowing shall be prohibited within the premises especially while handling food.

17. All articles that are stored or are intended for sale shall be fit for consumption and have proper cover to avoid contamination.
18. The vehicles used to transport foods must be maintained in good repair and kept clean.
19. Foods while in transport in packaged form or in containers shall maintain the required temperature.
20. Insecticides / disinfectants shall be kept and stored separately and away from food manufacturing / storing/ handling areas.

A. SANITARY AND HYGIENIC REQUIREMENTS FOR STREET FOOD VENDORS AND UNITS OTHER THAN MANUFACTURING/PROCESSING

1. Potential sources of contamination like rubbish, waste water, toilet facilities, open drains and stray animals shall be avoided.
2. The surfaces of the Vending carts which come in contact with food or food storage utensils shall be built of solid, rust/ corrosion resistant materials and kept in clean and good condition They shall be protected from sun, wind and dust. When not in use, food vending vans shall be kept in clean place and properly protected.
3. Rubbish bin with cover shall be provided by food stall or vending cart owners for any waste generated in the process of serving and eating by consumers.
4. Working surfaces of vending carts shall be clean, hygienic, impermeable and easy to clean (like stainless steel), and placed at least 60 to 70 cm. from above ground.
5. Sale points, tables, awnings, benches and boxes, cupboards, glass cases, etc. shall be clean and tidy.
6. Cooking utensils and crockery shall be clean and in good condition. It should not be broken/ chipped.
7. All containers shall be kept clean, washed and dried at the close of business to ensure that there is no growth of mould/ fungi and infestation.
8. Water used for cleaning, washing and preparing food shall be potable in nature.
9. Transporting of drinking water (treated water like bottled water, boiled/ filtered water through water purifier etc.) shall be in properly covered and protected containers and it shall be stored in clean and covered containers in a protected area away from dust and filth.
10. Cooking, storage and serving shall not be done in utensils of, cadmium, lead, non food grade plastic and other toxic materials.
11. Utensils shall be cleaned of debris, rinsed, scrubbed with detergent and washed under running tap water after every operation. Wiping of utensils shall be done with clean cloth. Separate cloths shall be used for wiping hands and for clearing surfaces, cloth used for floor cleaning will not be used for cleaning surfaces of tables and working areas and for wiping utensils Person cooking, handling or serving food should use hand gloves and aprons, where necessary. He shall wear head gear and cover his mouth always while at work.
12. Removing dust or crumb from plates or utensils shall be done by using cloth or wiper into dustbin.
13. The person suffering from infectious disease shall not be permitted to work.
14. All food handlers shall remain clean, wear washed clothes and keep their finger nails trimmed, clean and wash their hands with soap/ detergent and water before commencing work and every time after touching food or using toilet.
15. All food handlers should avoid wearing loose items that might fall into food and also avoid touching or scratching their face, head or hair.
16. All articles that are stored or intended for sale shall have proper cover to avoid contamination. Food should be stored only in food grade plastic containers as steel containers to prevent leaking.
17. Eating, chewing, smoking, , spitting and nose blowing shall be prohibited within the premises.
18. Foods shall be prepared or cooked as per the day's requirement to avoid left over which might be used in the next day without ascertaining its safety for consumption or

use in food. Consumables left over shall be kept in the refrigerator immediately after their intended use.

19. Adequate number of racks shall be provided for storage of articles of food, with clear identity of each commodity. Proper compartment for each class shall also be provided wherever possible so that there is no cross contamination.
20. Rubbish or garbage bin shall be with a tight cover and shall be cleaned everyday by transferring contents into designated locations.
21. Vegetarian and non-vegetarian items should be segregated.
22. Fridge should be cleaned at least once a week to remove stains, ice particles and food particles. The temperature in the fridge should be in the range of 4°C - 6°C.
23. The location of the vending unit should be in a place approved by the local authorities and not blocking traffic or pedestrians or near unhygienic locations.

## Part-II

(See Regulation 2.1.1(4))

### General Requirements on Hygienic and Sanitary Practices to be followed by all Food Business Operators applying for License

The establishment in which food is being handled, processed, manufactured, packed, stored, and distributed by the food business operator and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standards as specified below. It shall also be deemed to be the responsibility of the food business operator to ensure adherence to necessary requirements.

In addition to the requirements specified below, the food business operator shall identify steps in the activities of food business, which are critical to ensure food safety, and ensure that safety procedures are identified, implemented, maintained and reviewed periodically.

#### 1 LOCATION AND SURROUNDINGS

1.1 Food Establishment shall ideally be located away from environmental pollution and industrial activities that produce disagreeable or obnoxious odour, fumes, excessive soot, dust, smoke, chemical or biological emissions and pollutants, and which pose a threat of contaminating food areas that are prone to infestations of pests or where wastes, either solid or liquid, cannot be removed effectively.

1.2 In case there are hazards of other environment polluting industry located nearby, appropriate measures should be taken to protect the manufacturing area from any potential contamination.

1.3 The manufacturing premise should not have direct access to any residential area.

#### 2 LAYOUT AND DESIGN OF FOOD ESTABLISHMENT PREMISES

As far as possible, the layout of the food establishment shall be such that food preparation / manufacturing processes are not amenable to cross-contamination from other pre and post manufacturing operations like goods receiving, pre-processing (viz. packaging, washing / portioning of ready-to-eat food etc).

2.1 Floors, ceilings and walls must be maintained in a sound condition to minimize the accumulation of dirt, condensation and growth of undesirable moulds. They should be made of impervious material and should be smooth and easy to clean with no flaking paint or plaster.

2.2 Doors shall also be made of smooth and non-absorbent surfaces so that they are easy to clean and wherever necessary, disinfect.

2.3 The floor of food processing / food service area shall have adequate and proper drainage and shall be easy to clean and where necessary, disinfect. Floors shall be sloped appropriately to facilitate drainage and the drainage shall flow in a direction opposite to the direction of food preparation / manufacturing process flow.

2.4 Adequate control measures should be in place to prevent insects and rodents from entering the processing area from drains.

2.5 Windows, doors & all other openings to outside environment shall be well screened with wire-mesh or insect-proof screen as applicable to protect the premise from fly and other insects / pests / animals & the doors be fitted with automatic closing springs. The mesh or the screen should be of such type which can be easily removed for cleaning.

2.6 No person shall manufacture, store or expose for sale or permit the sale of any article of food in any premises not effectively separated to the satisfaction of the licensing authority from any privy, urinal, sullage, drain or place of storage of foul and waste matter.

#### 3 EQUIPMENT & CONTAINERS

3.1 Equipment and containers that come in contact with food and used for food handling, storage, preparation, processing, packaging and serving shall be made of corrosion free materials which do not impart any toxicity to the food material and should be easy to clean and /or disinfect (other than disposable single use types).



3.2 Equipment and utensils used in the preparation of food shall be kept at all times in good order and repair and in a clean and sanitary condition. Such utensil or container shall not be used for any other purpose.

3.3 Every utensil or container containing any food or ingredient of food intended for sale shall at all times be either provided with a properly fitted cover/lid or with a clean gauze net or other material of texture sufficiently fine to protect the food completely from dust, dirt and flies and other insects.

3.4 No utensil or container used for the manufacture or preparation of or containing any food or ingredient of food intended for sale shall be kept in any place in which such utensil or container is likely by reason of impure air or dust or any offensive, noxious or deleterious gas or substance or any noxious or injurious emanations, exhalation, or effluvium, to be contaminated and thereby render the food noxious.

3.5 Equipment shall be so located, designed and fabricated that it permits necessary maintenance and cleaning functions as per its intended use and facilitates good hygiene practices inside the premise including monitoring and audit.

3.6 Appropriate facilities for the cleaning and disinfecting of equipments and instruments and wherever possible cleaning in place (CIP) system shall be adopted.

3.7 Equipment and containers for waste, by-products and inedible or dangerous substances, shall be specifically identifiable and suitably constructed.

3.8 Containers used to hold cleaning chemicals and other dangerous substances shall be identified and stored separately to prevent malicious or accidental contamination of food.

3.9 If required, a waste water disposal system / effluent treatment plant shall be put in place.

3.10 All items, fittings and equipments that touch or come in contact with food must be:

- ⌘ kept in good condition in a way that enables them to be kept clean and wherever necessary, to be disinfected.

- ⌘ Chipped enameled containers will not be used. Stainless steel /aluminum / glass containers, mugs, jugs, trays etc. suitable for cooking and storing shall be used. Brass utensils shall be frequently provided with lining.

#### 4 FACILITIES

##### 4.1 Water supply

4.1.1 Only potable water, with appropriate facilities for its storage and distribution shall be used as an ingredient in processing and cooking.

4.1.2 Water used for food handling, washing, should be of such quality that it does not introduce any hazard or contamination to render the finished food article unsafe.

4.1.3 Water storage tanks shall be cleaned periodically and records of the same shall be maintained in a register.

4.1.4 Non potable water can be used provided it is intended only for cleaning of equipment not coming in contact with food, which does not come into contact with food steam production, fire fighting & refrigeration equipment and provided that pipes installed for this purpose preclude the use of this water for other purposes and present no direct or indirect risk of contamination of the raw material, dairy products or food products so processed, packed & kept in the premise.

4.1.5 Non potable water pipes shall be clearly distinguished from those in use for potable water.

##### 4.2 For Cleaning Utensils / Equipments

Adequate facilities for cleaning, disinfecting of utensils and equipments shall be provided. The facilities must have an adequate supply of hot and cold water if required.

#### 4.3 Washing of Raw materials

Adequate facilities for washing of raw food should be provided. Every sink (or other facilities) for washing food must have an adequate supply of hot and/or cold water. These facilities must be kept clean and, where necessary, disinfected. Preferably, sinks which are used for washing raw foods shall be kept separate and that should not be used for washing utensils or any other purposes.

#### 4.4 Ice and Steam

Ice and steam used in direct contact with food shall be made from potable water and shall comply with requirements specified under 4.1.1. Ice and steam shall be produced, handled and stored in such a manner that no contamination can happen

#### 4.5 Drainage and waste disposal

4.5.1 Food waste and other waste materials shall be removed periodically from the place where food is being handled or cooked or manufactured to avoid building up. A refuse bin of adequate size with a proper cover preferably one which need not be touched for opening shall be provided in the premises for collection of waste material. This shall be emptied and washed daily with a disinfectant and dried before next use.

4.5.2 The disposal of sewage and effluents (solid, liquid and gas) shall be in conformity with requirements of Factory / Environment Pollution Control Board. Adequate drainage, waste disposal systems and facilities shall be provided and they shall be designed and constructed in such manner so that the risk of contaminating food or the potable water supply is eliminated.

4.5.3 Waste storage shall be located in such manner that it does not contaminate the food process, storage areas, the environment inside and outside the food establishment and waste shall be kept in covered containers and shall be removed at regular intervals.

4.5.4 Periodic disposal of the refuse / waste should be made compulsory. No waste shall be kept open inside the premise and shall be disposed of in an appropriate manner as per local rules and regulations including those for plastics and other non environment friendly materials.

#### 4.6 Personnel facilities and toilets

4.6.1 Personnel facilities shall include those for proper washing and drying of hands before touching food materials including wash basins and a supply of hot and /or cold water as appropriate; separate lavatories, of appropriate hygienic design, for males and females separately; and changing facilities for personnel and such facilities shall be suitably located so that they do not open directly into food processing, handling or storage areas.

4.6.2 Number of toilets should be adequate depending on the number of employees (male /female) in the establishment and they should be made aware of the cleanliness requirement while handling food.

4.6.3 Rest and refreshments rooms shall be separate from food process and service areas and these areas shall not lead directly to food production, service and storage areas.

4.6.4 A display board mentioning do's & don'ts for the workers shall be put up inside at a prominent place in the premise in English or in local language for everyone's understanding.

#### 4.7 Air quality and ventilation

Ventilation systems natural and /or mechanical including air filters, exhaust fans, wherever required, shall be designed and constructed so that air does not flow from contaminated areas to clean areas.

#### 4.8 Lighting

Natural or artificial lighting shall be provided to the food establishment, to enable the employees/workers to operate in a hygienic manner. Lighting fixtures must wherever

appropriate, be protected to ensure that food is not contaminated by breakages of electrical fittings.

## 5 FOOD OPERATIONS AND CONTROLS

### 5.1 Procurement of raw materials

5.1.1 No raw material or ingredient thereof shall be accepted by an establishment if it is known to contain parasites, undesirable micro-organisms, pesticides, veterinary drugs or toxic items, decomposed or extraneous substances, which would not be reduced to an acceptable level by normal sorting and/or processing.

5.1.2 All raw materials, food additives and ingredients, wherever applicable, shall conform to all the Regulations and standards laid down under the Act.

5.1.3 Records of raw materials, food additives and ingredients as well as their source of procurement shall be maintained in a register for inspection.

5.1.4 All raw materials should be checked & cleaned physically thoroughly.

5.1.5 Raw materials should be purchased in quantities that correspond to storage/preservation capacity.

5.1.6 Packaged raw material must be checked for 'expiry date'/ 'best before'/ 'use by' date, packaging integrity and storage conditions.

5.1.7 Receiving temperature of potentially high risk food should be at or below 5 °C

5.1.8 Receiving temperature of frozen food should be -18 °C or below.

### 5.2 Storage of raw materials and food

5.2.1 Food storage facilities shall be designed and constructed to enable food to be effectively protected from contamination during storage; permit adequate maintenance and cleaning, to avoid pest access and accumulation.

5.2.2 Cold Storage facility, wherever required, shall be provided to raw, processed / packed food according to the type and requirement.

5.2.3 Segregation shall be provided for the storage of raw, processed, rejected, recalled or returned materials or products which will be distinguishably marked and secured. Raw materials and food shall be stored in separate areas from printed packaging materials, stationary, hardware and cleaning materials / chemicals.

5.2.4 Raw food, particularly meat, poultry and seafood products shall be cold stored separately from the area of work-in-progress, processed, cooked and packaged products. The conditions of storage in terms of temperature and humidity requisite for enhancing the shelf life of the respective food materials / products shall be maintained.

5.2.5 Storage of raw materials, ingredients, work-in-progress and processed / cooked or packaged food products shall be subject to FIFO (First in, First Out), FEFO (First Expire First Out) stock rotation system as applicable.

5.2.6 Containers made of non-toxic materials shall be provided for storage of raw materials, work-in-progress and finished / ready to serve products. The food materials shall be stored on racks / pallets such that they are reasonably well above the floor level and away from the wall so as to facilitate effective cleaning and prevent harbouring of any pests, insects or rodents.

### 5.3 Food Processing / Preparation, Packaging and Distribution / Service

#### 5.3.1 Time and temperature control

5.3.1.1 The Food Business shall develop and maintain the systems to ensure that time and temperature are controlled effectively where it is critical to the safety and suitability of food. Such control shall include time and temperature of receiving, processing, cooking, cooling, storage, packaging, distribution and food service upto the consumer, as applicable.

- 5.3.1.2 Whenever frozen food / raw materials are being used / handled / transported, proper care should be taken so that defrosted / thawed material are not stored back after opening for future use.
- 5.3.1.3 If thawing is required then only required portion of the food should be thawed at a time.
- 5.3.1.4 Wherever cooking is done on open fire, proper outlets for smoke/steam etc. like chimney, exhaust fan etc. shall be provided.

#### 5.4 Food Packaging

- 5.4.1 Packaging materials shall provide protection for all food products to prevent contamination, damage and shall accommodate required labelling as laid down under the FSS Act & the Regulations there under.
- 5.4.2 For primary packaging (i.e packaging in which the food or ingredient or additive comes in direct contact with the packaging material), only Food grade packaging materials are to be used . For packaging materials like aluminium plastic and tin, the standards to be followed are as mentioned under the FSS Regulations and rules framed there under.
- 5.4.3 Packaging materials or gases where used, shall be non-toxic and shall not pose a threat to the safety and suitability of food under the specified conditions of storage and use.

#### 5.5 Food Distribution / Service

- 5.5.1 All critical links in the supply chain need to be identified and provided for to minimize food spoilage during transportation. Processed / packaged and / or ready-to-eat food shall be protected as per the required storage conditions during transportation and / or service.
- 5.5.2 Temperatures and humidity which are necessary for sustaining food safety and quality shall be maintained. The conveyances and /or containers shall be designed, constructed and maintained in such manner that they can effectively maintain the requisite temperature, humidity, atmosphere and other conditions necessary to protect food conveyances and / or containers used for transporting / serving foodstuffs shall be non toxic, kept clean and maintained in good condition in order to protect foodstuffs from any contamination.
- 5.5.3 Receptacles in vehicles and / or containers shall not be used for transporting anything other than foodstuffs where this may result in contamination of foodstuffs. Where the same conveyance or container is used for transportation of different foods, or high risk foods such as fish, meat, poultry, eggs etc., effective cleaning and disinfections shall be carried out between loads to avoid the risk of cross- contamination. For bulk transport of food, containers and conveyances shall be designated and marked for food use only and be used only for that purpose.

#### 6 Management and Supervision

- 6.1 A detailed Standard Operating Procedure (SOP) for the processing of food as well as its packing, despatch and storage will be developed for proper management which in turn would help in identifying any problem and the exact point, so that damage control would be faster.
- 6.2 The Food Business shall ensure that technical managers and supervisors have appropriate qualifications, knowledge and skills on food hygiene principles and practices to be able to ensure food safety and quality of its products, judge food hazards, take appropriate preventive and corrective action, and to ensure effective monitoring and supervision.

#### 7 Food Testing Facilities

- 7.1 A well equipped, laboratory for testing of food materials / food for physical, microbiological and chemical analysis in accordance with the

specification/standards laid down under the rules and regulations shall be in place inside the premise for regular / periodic testing and when ever required.

- 7.2 In case of any suspicion or possible contamination, food materials / food shall be tested before dispatch from the factory.
- 7.3 If there is no in house laboratory facility, then regular testing shall be done through an accredited lab notified by FSSAI . In case of complaints received and if so required, the company shall voluntarily do the testing either in the in-house laboratory or an accredited lab or lab notified by FSSAI.

## 8 Audit, Documentation and Records

- 8.1 A periodic audit of the whole system according to the SOP shall be done to find out any fault / gap in the GMP/GHP system.
- 8.2 Appropriate records of food processing / preparation, production / cooking, storage, distribution, service, food quality, laboratory test results, cleaning and sanitation, pest control and product recall shall be kept and retained for a period of one year or the shelf-life of the product, whichever is more.

## 9 SANITATION AND MAINTENANCE OF ESTABLISHMENT PREMISES

### 9.1 Cleaning and Maintenance

- 9.1.1 A cleaning and sanitation programme shall be drawn up and observed and the record thereof shall be properly maintained, which shall indicate specific areas to be cleaned, cleaning frequency and cleaning procedure to be followed, including equipment and materials to be used for cleaning. Equipments used in manufacturing will be cleaned and sterilized at set frequencies.
- 9.1.2 Cleaning chemicals shall be handled and used carefully in accordance with the instructions of the manufacturer and shall be stored separately away from food materials, in clearly identified containers, to avoid any risk of contaminating food.

### 9.2 Pest Control Systems

9.2.1 Food establishment, including equipment and building shall be kept in good repair to prevent pest access and to eliminate potential breeding sites. Holes, drains and other places where pests are likely to gain access shall be kept in sealed condition or fitted with mesh / grills / claddings or any other suitable means as required and animals, birds and pets shall not be allowed to enter into the food establishment areas/ premises.

9.2.2 Food materials shall be stored in pest-proof containers stacked above the ground and away from walls.

9.2.3 Pest infestations shall be dealt with immediately and without adversely affecting the food safety or suitability. Treatment with permissible chemical, physical or biological agents, within the appropriate limits, shall be carried out without posing a threat to the safety or suitability of food. Records of pesticides / insecticides used along with dates and frequency shall be maintained.

## 10 PERSONAL HYGIENE

### 10.1 Health Status

- 10.1.1 Personnel known, or believed, to be suffering from, or to be a carrier of a disease or illness likely to be transmitted through food, shall not be allowed to enter into any food handling area . The Food Business shall develop system, whereby any person so affected, shall immediately report illness or symptoms of illness to the management and medical examination of a food handler shall be carried out apart from the periodic checkups, if clinically or epidemiologically indicated.
- 10.1.2 Arrangements shall be made to get the food handlers / employees of the establishment medically examined once in a year to ensure that they are free from any infectious, contagious and other communicable diseases. A record of these

examinations signed by a registered medical practitioner shall be maintained for inspection purpose.

- 10.1.3 The factory staff shall be compulsorily inoculated against the enteric group of diseases as per recommended schedule of the vaccine and a record shall be kept for inspection.
- 10.1.4 In case of an epidemic, all workers are to be vaccinated irrespective of the scheduled vaccination.
- 10.2 Personal Cleanliness
- 10.2.1 Food handlers shall maintain a high degree of personal cleanliness. The food business shall provide to all food handlers adequate and suitable clean protective clothing, head covering, face mask, gloves and footwear and the food business shall ensure that the food handlers at work wear only clean protective clothes, head covering and footwear every day.
- 10.2.2 Food handlers shall always wash their hands with soap and clean potable water, disinfect their hands and then dry with hand drier or clean cloth towel or disposable paper at the beginning of food handling activities immediately after handling raw food or any contaminated material, tools, equipment or work surface, where this could result in contamination of other food items or after using the toilet.
- 10.2.3 Food handlers engaged in food handling activities shall refrain from smoking, spitting, chewing, sneezing or coughing over any food whether protected or unprotected and eating in food preparation and food service areas.
- 10.2.4 The food handlers should trim their nails and hair periodically, do not encourage or practice unhygienic habits while handling food.
- 10.2.5 Persons working directly with and handling raw materials or food products shall maintain high standards of personal cleanliness at all times. In particular:
- a) they shall not smoke, spit, eat or drink in areas or rooms where raw materials and food products are handled or stored;
  - b) wash their hands at least each time work is resumed and whenever contamination of their hands has occurred; e.g. after coughing / sneezing, visiting toilet, using telephone, smoking etc.
  - c) avoid certain hand habits - e.g. scratching nose, running finger through hair, rubbing eyes, ears and mouth, scratching beard, scratching parts of bodies etc.- that are potentially hazardous when associated with handling food products, and might lead to food contamination through the transfer of bacteria from the employee to product during its preparation. When unavoidable, hands should be effectively washed before resuming work after such actions.
- 10.3 Visitors
- 10.3.1 Generally visitors should be discouraged from going inside the food handling areas. Proper care has to be taken to ensure that food safety & hygiene is not getting compromised due to visitors in the floor area.
- 10.3.2 The Food Business shall ensure that visitors to its food manufacturing, cooking, preparation, storage or handling areas must wherever appropriate, wear protective clothing, footwear and adhere to the other personal hygiene provisions envisaged in this section.

## 11 PRODUCT INFORMATION AND CONSUMER AWARENESS

All packaged food products shall carry a label and requisite information as per provisions of Food Safety and Standards Act, 2006 and Regulations made there under so as to ensure that adequate and accessible information is available to the each person in the food chain to enable them to handle, store, process, prepare and display the food products safely and correctly and that the lot or batch can be easily traced and recalled if necessary.

## 12 TRAINING

12.1 The Food Business shall ensure that all food handlers are aware of their role and responsibility in protecting food from contamination or deterioration. Food handlers shall have the necessary knowledge and skills which are relevant to food processing / manufacturing, packing, storing and serving so as to ensure the food safety and food quality.

12.2 The Food Business shall ensure that all the food handlers are instructed and trained in food hygiene and food safety aspects along with personal hygiene requirements commensurate with their work activities, the nature of food, its handling, processing, preparation, packaging, storage, service and distribution.

12.3 Periodic assessments of the effectiveness of training, awareness of safety requirements and competency level shall be made, as well as routine supervision and checks to ensure that food hygiene and food safety procedures are being carried out effectively.

12.4 Training programmes shall be routinely reviewed and updated wherever necessary.

### PART-III

(See Regulation 2.1.2.(1)(5))

Specific Hygienic and Sanitary Practices to be followed by Food Business Operators engaged in manufacture, processing, storing and selling of Milk and Milk Products

In addition to Part-II, the dairy establishment in which dairy based food is being handled, processed, manufactured, stored, distributed and ultimately sold by the food business operator, and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standard as specified below.

#### I. SANITARY REQUIREMENTS

1. Dairy Establishments shall have the following:

(a) Facilities for the hygienic handling and protection of raw materials and of non-packed or non-wrapped dairy products during loading and unloading, transport & storing including Bulk Milk cooling facilities.

(b) Special watertight, non-corrodible containers to put raw materials or dairy products intended for human consumption. Where such raw materials or dairy products are removed through conduits, these shall be constructed and installed in such a way so as to avoid any risk of contamination of other raw materials or dairy products;

(c) a waste water disposal system which is hygienic and approved ;

(d) facilities for cleaning & disinfecting of tanks used for transporting dairy products and raw milk. These containers have to be cleaned after every use.

2. The occupier of a dairy establishment shall take appropriate measures to avoid cross-contamination of dairy products in accordance with the cleaning program as specified in point 9.1 of Part II.

3. Where a dairy establishment produces food stuffs containing dairy products together with other ingredients, which have not undergone heat treatment or any other treatment having equivalent effect, such dairy products and ingredients shall be stored separately to prevent cross-contamination.

4. The production of heat-treated milk or the manufacture of milk-based products, which might pose a risk of contamination to other dairy products, shall be carried out in a clearly separated working area.

5. Equipment, containers and installations which come into contact with dairy products or perishable raw materials used during production shall be cleaned and if necessary disinfected according to a verified and documented cleaning programme.

6. Equipment, containers, instruments and installations which come in contact with microbiologically stable dairy products and the rooms in which they are stored shall be cleaned and disinfected according to a verified and documented Food Safety management programme drawn up by the owner/occupier of the dairy establishment.

7. Disinfectants and similar substances used shall be used in such a way that they do not have any adverse effects on the machinery, equipment, raw materials and dairy products kept at the dairy establishment. They shall be in clearly identifiable containers bearing labels with instructions for their use and their use shall be followed by thorough rinsing of such instruments and working equipment with potable water, unless supplier's instructions indicate otherwise.

## II. PERSONAL HYGIENE REQUIREMENTS

1. The Food Business Operator shall employ those persons only in such an establishment to work directly with and handle raw materials or dairy products if those persons have proved to the occupier's satisfaction by means of a medical certificate, on recruitment, that there is no medical impediment to their employment in that capacity.

2. Persons working directly with and handling raw materials or dairy products shall maintain the highest standards of personal cleanliness at all times. In particular they shall

(a) wear suitable, clean working clothes and headgear which completely encloses their hair;

(b) wash their hands at least each time work is resumed and whenever contamination of their hands has occurred; e.g. after coughing / sneezing, visiting toilet, using telephone, smoking etc.

(c) cover wounds to the skin with a suitable waterproof dressing. No person with injury on hand, even with dressing, shall be placed in any product making/handling section.

(d) avoid certain hand habits - e.g. scratching nose, running finger through hair, rubbing eyes, ears and mouth, scratching beard, scratching parts of bodies etc. that are potentially hazardous when associated with handling dairy products, and might lead to food contamination through the transfer of bacteria from the employee to product during its preparation. When unavoidable, hands should be effectively washed before resuming work after such actions

## III. SANITARY REQUIREMENTS FOR STORAGE

1. Immediately after procuring, raw milk shall be placed in a clean place, which is suitably equipped so as to prevent any kind of contamination.

2. 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.

3. If raw milk is brought to the dairy plant by a producer or farmer then it shall be ensured that he brings it within four hours of milking and it shall be cooled as soon as practicable to a temperature of 4°C or lower and maintained at that temperature until processed.

4. Where raw milk is collected daily from a producer, it shall be cooled immediately to a temperature of 4°C to 6°C or lower and maintained at that temperature until processed;

5. When the pasteurization process is completed, pasteurized milk shall be cooled immediately to a temperature of 4°C or lower.

6. Subject to Paragraph 7 below, any dairy product not intended to be stored at ambient temperature shall be cooled as quickly as possible to the temperature established by the manufacturer of that product as suitable to ensure its durability and thereafter stored at that temperature.

7. Where dairy products other than raw milk are stored under cooled conditions, their storage temperatures shall be registered and the cooling rate shall be such that the products reach the required temperature as quickly as possible.

8. The maximum temperature at which pasteurized milk may be stored until it leaves the treatment establishment shall not exceed 5°C.

## IV. WRAPPING AND PACKAGING

1. The wrapping and packaging of dairy products shall take place under satisfactory hygienic conditions and in rooms provided for that purpose.

2. The manufacture of dairy products and packaging operations may take place in the same room if the following conditions are satisfied: —



- (a) The room shall be sufficiently large and equipped to ensure the hygiene of the operations;
  - (b) the wrapping and packaging shall have been brought to the treatment or processing establishment in protective cover in which they were placed immediately after manufacture and which protects the wrapping or packaging from any damage during transport to the dairy establishment, and they shall have been stored there under hygienic conditions in a room intended for that purpose;
  - (c) the rooms for storing the packaging material shall be free from vermin and from dust which could constitute an unacceptable risk of contamination of the product and shall be separated from rooms containing substances which might contaminate the products. Packaging shall not be placed directly on the floor;
  - (d) packaging shall be assembled under hygienic conditions before being brought into the room, except in the case of automatic assembly or packaging, provided that there is no risk of contamination of the products;
  - (e) packaging shall be done without delay. It shall be handled by separate group of staff having experience in handling and product wrapping and
  - (f) immediately after packaging, the dairy products shall be placed in the designated rooms provided for storage under required temperature.
3. Bottling or filling of containers with heat-treated milk and milk product shall be carried out hygienically.
4. Wrapping or packaging may not be re-used for dairy products, except where the containers are of a type which may be re-used after thorough cleaning and disinfecting.
5. Sealing shall be carried out in the establishment in which the last heat-treatment of milk or liquid milk-based products have been carried out, immediately after filling, by means of a sealing device which ensures that the milk is protected from any adverse effects of external origin on its characteristic. The sealing device shall be so designed that once the container has been opened, the evidence of opening remains clear and easy to check.

#### PART IV

(See Regulation 2.1.2 (1)(5))

#### Specific Hygienic and Sanitary Practices to be followed by Food Business Operators engaged in manufacture, processing, storing and selling of Meat and Meat Products

##### A. Slaughter House

Food Business Operator which slaughters large animals and small animals including sheep and goat or poultry birds within the premises of his factory for production of meat/ meat products for supply / sale/ distribution to the public shall comply with the following requirements:—

##### 1. General Requirements:

- 1.1 No Objection Certificate to be obtained from local Authority before grant of license.

##### 2. Location of Premises:

Such establishments / Slaughter Houses should be linked to a meat market located away from Vegetable, fish or other food markets and shall be free from undesirable odour, smoke, dust or other contaminants. The premises shall be located at elevated level in a sanitary place.

##### 3. Premise requirements:

- 3.1 The slaughter house shall have a reception area/animal holding yard/resting yard, lairage, slaughter hall, side halls for hide collection, paunch collection, offals collection, and separation, holding room for suspected/ condemned carcass, by-product harvesting, refrigeration room/cold room etc.

3.2 Every such establishment / Slaughter House shall make separate provision in the slaughter hall for the slaughter of different species which are proposed to be slaughtered (like large animal viz; Cattle and Buffalo, Pigs and small animals like Sheep & Goat) and for different methods of slaughter (like Halal, Jewish and Jhatka). After every type of operation the slaughter house shall be cleaned, washed wiped/dried and sanitized thoroughly.

3.3 The slaughter house shall have separation between clean and dirty sections and shall be so organized that from the introduction of a live animal into the slaughter house up to the emergence of meat and offal classed as fit for human consumption there shall be a continuous forward movement without any possibility of reversal, intersection or overlapping between the live animal meat, and between meat and bye products or waste.

3.4 The reception area/animal holding yard/ resting yard shall have facilities for watering and examining animals before they are sent to holding pens/lairage. Animals suspected of contagious or infectious diseases shall be segregated and kept in separate isolation pens which shall also be provided with arrangements for watering and feeding. After confirmation for any notifiable disease, the designated Veterinary Authority shall notify the disease as per the existing procedures. The resting yard must have overhead protective shelter. (This is not mandatory for registration category)

3.5 The lairage shall be adequate in size for the number of animals to be laired.

3.6 Separate space shall be provided for stunning (Wherever applicable), for collection of blood and for dressing of the carcasses. The slaughtering of an animal shall not be done in the sight of other animals. The dressing of the carcass shall not be done on the floor. Suitable hoists will be provided to hang the carcass before it is eviscerated.

3.7 All the floors in lairage, slaughter halls, work rooms, hanging rooms shall be of impervious and non-slippery material.

3.8 The internal walls will be paved with impervious glazed tiles up to 1 meter height in case of poultry and small ruminant animals and 5 meter height in case of large ruminant animals. The walls and floors should be epoxy coated so as to avoid accumulation/absorption of dust, blood/meat particles, microbial/fungal growth.

3.9 Ceiling or roofs shall be so constructed and finished so as to minimise condensation, mould development, flaking and accumulation of dirt.

3.10 Suitable and sufficient accommodation shall be provided for segregation, storage and disposal of condemned meat.

3.11 The establishments / Slaughter Houses shall be so constructed and maintained as to permit hygienic production.

3.12 Windows, doors and other openings suited to screening shall be fly proof. All doors shall have strong springs so that they may close automatically.

3.13 All operations in connection with the preparation or packing of meat / meat food products shall be carried out under hygienic conditions. No portion of the establishments / Slaughter Houses premises shall ever be used for living or sleeping purposes unless it is separated from the factory by a wall.

3.14 There shall be efficient drainage and plumbing systems and all drains and gutters shall be properly and permanently installed. There shall be provision for the disposal of refuse.

3.15 The drainage system for blood shall either be underground with facility for easy cleaning or a portable receptacle with lid. All drainages will have traps and screens so as to prevent entry of scavengers like rats, mice, vermin etc.

3.16 The rooms and compartments where edible products are handled shall be separate and distinct from the rooms and compartments for inedible products.

3.17 Suitable and separate space shall be provided for the storage of hides and skins. This room shall have a separate exit.

3.18 A constant and sufficient supply of clean potable cold water with pressure hose pipes and supply of hot water should be made available in the slaughter hall during working hours.

3.19 Suitable and sufficient facilities shall be provided for persons working in the slaughter house for changing their clothes and cleaning their footwear, and cleaning their hands before entering rooms used for the preparation and storage of meat.

3.20 Provision for latrines, toilets and change rooms will be made . Sufficient number of latrines, urinals, washbasins and bathrooms for each sex shall be provided.

3.21 Suitable and sufficient facilities shall be provided in convenient places within the slaughter house for the sterilisation of knives and sharpner (mushtala) and other equipment used in the slaughter house. The knives and sharpner (mushtala) shall be of stainless steel only.

3.22 Whenever cooking is done on open fire, chimneys shall be provided for removal of smoke and soot.

3.23 Whenever the dressed meat is not used up for the preparation of meat food products and some portion has to be stored without further immediate processing, such storage shall be in a room maintained at 0° C to 2°C.

3.24 All slaughter house refuse and waste materials will be suitably processed to prepare animal bye products or dumped in pits that are suitably covered so as to prevent its access to scavengers. For large slaughter houses, a suitable provision of Effluent Treatment Plant will be made.

3.25 In case of small slaughter houses, waste material should be composted which can be used for manure purpose and in case of large slaughter houses, waste material should be rendered (cooked) in a rendering plant to produce meat, bone meal and inedible fats.

3.26 Suitable and sufficient facilities shall be provided for the isolation of meat requiring further examination by the authorised veterinary officer in a suitable laboratory (within the premises of the slaughter house).

3.27 Consistent with the size of the factory and volume and variety of meat food products manufactured, a laboratory shall be provided, equipped and staffed with qualified (chemist/analyst and Veterinary Microbiologist) and trained personnel. The licensing authority shall accord approval of the laboratory after inspection.

3.28 The Chemist/analyst shall have passed graduation with Chemistry as one subject and the. Veterinary Microbiologist shall be a qualified veterinarian with two years of experience in Meat analysis or having degree of Master in Veterinary Public Health with specialization in Meat Hygiene.

3.29. Adequate natural or artificial lighting should be provided throughout the abattoir/ meat processing unit. Where appropriate, the lighting should not alter colours and the intensity should not be less than 540 Lux (50 foot candles) at all inspection points, 220 Lux (20 foot candles) in work rooms and 110 Lux (10 foot candles) in other areas. Light bulbs and fixtures suspended over meat in any stage of production should be of safety type and protected to prevent contamination of meat in case of breakage. As far as possible meat inspection shall be carried out in day light. Every abattoir shall be provided with well distributed artificial light.

#### 4. Sanitary Practices:

4.1 Every part of the internal surface above the floor or pavement of such slaughter house shall be washed thoroughly with hot lime wash within the first 10 days of March, June, September and December. Every part of the floor or pavement of the slaughter house and every part of the internal surface of every wall on which any blood or liquid refuse or filth may have been spilt or splashed or with which any offensive or noxious matter have been brought into contact during the process of slaughtering, dressing and cutting, shall be thoroughly cleaned, washed with water, wiped/dried and disinfectant within three hours after the completion of slaughter.

4.02 Rooms and compartments in which animals are slaughtered or any product is processed or prepared shall be kept sufficiently free from steam, vapours and moisture and obnoxious odours so as to ensure clean and hygienic operations. This will also apply to overhead structures in those rooms and compartments.

4.03 All parts of the establishments / Slaughter Houses shall always be kept clean, adequately lighted and ventilated and shall be regularly cleaned, and disinfected. The floorings shall be impervious and washed daily. Lime washing, colour washing or painting as the case may be, shall be done at least once in every twelve months.

4.04 All yards, outhouses, stores and all approaches to the establishments / Slaughter Houses shall always be kept clean and in a sanitary condition.

4.05 Suitable and sufficient receptacles furnished with closely fitted covers shall be provided for collection and removal of all garbage, filth and refuse from the slaughter house at a convenient time to a place away from the factory for disposal.

4.06 All blood, manure, garbage, filth or other refuse from any animal slaughtered and the hide, fat, viscera and offal there from, shall be removed from the slaughter house within 8 hours after the completion of the slaughtering and in such a manner and by such means as will not cause nuisance at the premises or elsewhere. Every such vessel or receptacle shall be thoroughly cleaned and disinfected immediately after use and shall be kept thoroughly clean when not in actual use.

4.07 The inner side of the skin shall not be rubbed or caused to be rubbed upon the ground within any portion of the slaughter hall. Hides and skins shall not be dragged within the slaughter hall. No gut-scraping, tripe cleaning, manufacture or preparation of meat food products, household washing of clothes or work of any nature other than is involved in the slaughter and dressing of the carcass shall be permitted in any slaughter hall except in the adjuncts to the slaughter hall intended for these products and purposes.

4.08 The premises shall be cleaned thoroughly with disinfectants, one day in advance of production of meat food products and the equipments shall be sterilized/sanitized before use. The rooms and compartments in which any meat food product is prepared or handled shall be free from dust and from odours emanating from dressing rooms, toilet rooms, catch basins, hide cellars, casing rooms and livestock pens.

4.9 Every practicable precaution shall be taken to exclude flies, rats, mice and vermin from the establishments

/Slaughter Houses. The use of poisons for any purpose in rooms or compartments where any unpacked product is stored or handled is forbidden. The use of approved bait poisons in hide cellars, compartments where inedible products are stored, outhouses or similar buildings containing canned products is, however, not forbidden.

4.10 It shall be ensured that dogs, cats or birds do not have access to the slaughter hall. Open areas in the factory shall have covered wire rope netting to prevent carrion birds from access to the slaughter hall or the factory.

4.11 Water used in the establishments / Slaughter Houses shall be potable and suitable arrangements shall be made for ensuring potability of water if bore well water is used for production of meat and meat products. If required by the licensing authority, the water shall be got examined chemically and bacteriologic ally by a recognised laboratory. The water quality shall comply the standards prescribed by the licensing Authority.

4.12 Warm meat' meant for immediate sale need not be stored in cool conditions. It can be transported in a hygienic and sanitary condition in clean insulated containers with covers (lids) to the meat shops/selling units with precautions to ensure that no contamination/cross contamination or deterioration takes place.

## 5. Equipment & Machinery:

5.1 The equipment and fittings in slaughter hall except for chopping blocks, cutting boards and brooms, shall be of such material and of such construction as to enable them to be kept clean. The implements shall be of metal or other cleanable and durable material resistant to corrosion.

5.2 No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of meat food products. (Copper or brass vessels shall always be heavily lined. No iron or galvanised iron shall come in contact with meat food products).

## 6. Personnel Hygiene:

6.1 No person suffering from infectious or contagious diseases shall be allowed to work in the factory. Arrangements shall be made to get the factory staff medically examined at such intervals as the licensing authority deems fit, to ensure that they are free from infectious, contagious and other diseases. A record of these examinations signed by a registered medical practitioner shall be maintained for inspection.

6.2 The staff shall be inoculated against the enteric group of diseases and a certificate thereof shall be kept for inspection.

6.3 In case of an epidemic, all workers should be inoculated or vaccinated.

6.4 The workers working in processing and preparation shall be provided with proper aprons and head wears which shall be clean. The management shall ensure that all workers are neat, clean and tidy.

(a) Animal Welfare

Animal welfare is a major concern in meat production. It is essential that animals be reared, handled, transported, and slaughtered using humane practices. A healthy and peaceful animal is an essential requirement for hygienic slaughter and safety of the meat product.

Careful handling of animals during loading / unloading, transportation and at slaughtering helps in improving the quality of meat and reduction in losses in the value of the carcass/meat.

1. Pre Slaughter Handling of Animal:

Livestock are transported en masse from the farm to the slaughterhouse, a process called "live export". Depending on its length and circumstances, this exerts stress and injuries on the animals and some may die en route. Apart from being inhumane, unnecessary stress in transport may adversely affect the quality of the meat. In particular, the muscles of stressed animals are low in water and glycogen, and their pH fails to attain acidic values.

Transportation of Animals

Following requirements shall be satisfied for Transportation of Animals from a farm to the slaughter house. 1.0 General Conditions

1.1 Only healthy animals in good condition shall be transported unless they are meant for emergency slaughter. These animals should be certified by a qualified veterinary inspector for freedom from infectious diseases and ecto-parasitic diseases and their fitness to undertake the journey.

1.2 When animals are to be transported from endemic areas of a disease to non-endemic areas, the animals should be given protective vaccination and kept in quarantine for 30 days, before transportation.

1.3 Female animals in advanced stages of pregnancy shall not be transported.

1.4 When transporting large animals particularly bears/bulls, special arrangements by providing suitable partitions should be made to protect the animals from infighting. Similar arrangements should also be made to protect the young ones from being crushed when they are transported.

1.5 To avoid exhaustion, the animals shall be given humane treatment and care during transportation. The animals shall not be bound or chained during transit and space provided for them shall be large enough to stand or lie.

1.6 An attendant along with first aid equipment shall accompany the animals in transit.

1.7 Before loading, the animals should not be fed heavily. Only light feed may be allowed. For journeys less than 12 hours no feed need be carried but for longer journeys sufficient feed shall be carried to last during the journey. Watering facilities shall be provided at regular intervals.

1.8 Light and heavy animals shall be separated by providing partitions; animals from different pens/sheds shall not be mixed during transportation. Male stock shall not be transported with female stock (adults).

1.9 All vehicles should be inspected for safety, suitability and cleanliness before loading the animals. The floor and walls should be undamaged and there should be no nails or sharp projections which may injure the animals.

1.10 The Vehicles should be thoroughly sprayed with suitable disinfectant before loading the animals.

1.11 A layer of clean sand to cover the floor to a thickness of not less than 6 cm shall be provided. This layer of sand shall be moistened with water during the summer months. During hot months arrangements shall be made to sprinkle water on the animals at frequent intervals. In winter, a 2-cm layer of clean sand with another 6-cm layer of whole-straw shall be provided.

1.12 Animals when driven for loading or unloading shall never be struck with stick. Driving could best be done by soft-rubber pipe.

1.13 If animals are to be transported in extreme cold or hot climate, it is preferable to transport them in covered Lorries on road so that they may not die or get exhausted or suffer from acute respiratory disease. Journey under such adverse climate shall be minimised.

1.14 Each consignment should bear a label showing the following particulars:

- a) Number and kind of the animals loaded;
- b) Name, address and telephone number, if any, of the consignor;
- c) Name address and telephone number, if any, of the consignee;
- d) Instructions regarding feeding and watering.

## 2.0 Loading

2.1 Loading during extremes of temperatures shall be avoided.

2.2 Suitable ramp shall be provided for loading and unloading the animals. The floor of the ramp shall have cleats at intervals, so that animals do not slip as they climb or descend. The ramp shall be covered with straw to avoid slipping. At any time of loading and unloading the vehicle shall be kept clean to avoid slipping of animals. Bale

2.3 In case of railway wagons when loading is done on the platform, the door of the wagon may be used as ramp. In such cases, bales or bags of hay, agricultural wastes etc. may be placed on the either side of the dropped door to prevent the animals from getting their legs between the sides of the wagons and platform.

## 3.0 Space Requirements

3.1 Overcrowding shall be avoided. Each animal shall have enough space to lie down.

3.2 Railway wagons shall not accommodate more animals than those specified in IS specifications.

3.3 The speed of truck transporting animals shall not exceed 40 kilometres per hour, avoiding jerks and jolts. The truck shall not load any other merchandise and shall avoid unnecessary stops on the road.

3.4 For journeys, exceeding 12 hours, the animals shall be transported by railway. Loading shall be done by evening.

## 4.0 Slaughter:

Animals are slaughtered by being first stunned and then exsanguinated (bled out). Stunning can be effected through asphyxiating the animals with carbon dioxide, shooting them with a gun or a captive bolt pistol, or shocking them with electric current.

### 4.1. Stunning:

Stunning before slaughter should be mandatory. By inducing unconsciousness and insensibility, stunning can avoid and minimise reactions of fear and anxiety as well as pain, suffering and distress among the animals concerned. Stunning methods induce temporary loss of consciousness and rely on prompt and accurate sticking procedures to cause death.

It is important that the equipment utilized for stunning and slaughter is maintained in good working condition and that all operators involved are well trained and have a positive attitude towards the welfare of animals.

Electrical stunning consists of passing electricity through the brain to produce instantaneous insensibility. The following method of slaughter shall be considered humane:—

(i) Mechanical stunning of cattle may be carried out by one of three methods; captive bolt stunning, mushroom head percussive stunning and pneumatic percussive stunning. For cattle, pneumatic stunning should be preferred and the optimum position is that the centre of the stunner should contact the animal at a point of intersection of lines drawn from the medial corners of the eyes and the base of the ears. The best position for pigs is on the midline just above eye level, with the host directed down the line of the spinal cord. The optimum position for sheep and goat is behind the poll, aiming towards the angle of the jaw. If an animal shows signs of regaining consciousness after the initial stun, the animal must be immediately killed by the use of a captive bolt gun.

(ii) Electrical stunning - Electrical Head Stunners may be preferred for sheep and goat where both electrodes are placed on the head region. Water bath electrical stunning may be used for poultry birds. A low and controlled voltage must be maintained so that the stunning will not damage the heart and brain or cause physical disability and death to the animals. The minimum current level recommended for stunning are indicated in the table below.

Species	Minimum current levels for head-only stunning
Cattle	1.5 Amps
Calves (bovines of less than 6 month of age)	1.0 Amps
Pigs	1.25 Amps
Sheep and goats	1.0 Amps
Lambs	0.7 Amps
Broilers	100 milli Amps
Turkeys	150 milli Amps

(iii) Gas stunning - Stunning of pigs by exposure to carbon dioxide (CO<sub>2</sub>) may be preferred. The concentration of CO<sub>2</sub> should be 90% by volume but shall not be less than 80% by volume. Ideally pigs should be exposed for 3 minutes. Sticking should be done immediately after exit from the gas chamber. Over-crowding of animals should be avoided in the gas chamber.

## 5. Precautions for animal

welfare: a. General:

- (1) The floor of the slaughter area should not cause slipping or falling of animals.
  - (2) Vocalization is an indicator of animal discomfort and need to be watched for.
  - (3) Use of electric pods for moving animal should be discouraged. Movement of animals can be managed by grouping, use of plastic wrapped sticks etc.
  - (4) Pen stocking density should be monitored. All animals should have room to lie down simultaneously. The condition of animals arriving for slaughter should be closely monitored so that injured, diseased animals are not slaughtered.
  - (5) High pitch sounds such as whistling and yelling should be avoided to spare distress to animals.
- b. The following factors have been identified as critical to animal welfare:
- (a) supervision and training of employees.
  - (b) Designing of animal transport cart and unloading bay.
  - (c) Proper construction of holding/resting pen, stunning box, maintenance of stunning equipment, restraining systems, gates and other animal handling equipment.

(d) Avoiding distractions that make animals refuse to move. (e) Monitoring the condition of animals arriving at the plant. (f) Proper design of equipment in the slaughter house.

Keeping this in view, the following need to be observed to ensure humane treatment of animals brought for slaughter:—

- ⌘ Pre-slaughter handling of animal should be carefully done to reduce stress. Resting of the animals is essential. Only animals which are disease free and in a condition to walk should be brought for slaughter.
- ⌘ Distractions that impede animal movements such as, reflections, air blowing towards animals and movement or high pitch noise, need to be avoided. Herding of animals should not be done through electric prods but with the help of plastic bags or sticks.
- ⌘ A high standard of training is required for employees to ensure that the basic hygiene and safety practices are followed while handling animals.
- ⌘ Equipment which is used for slaughter such as captive bolt stunner, gates, hooks etc should be kept in good working condition and cleanliness of floors etc. needs to be ensured. There should be daily check to ensure the smooth working of equipment and cleanliness of floors.
- ⌘ The condition of the animals arriving at the plant should be monitored. Animals which are injured or not in a condition to walk should not be slaughtered.
- ⌘ Inspecting personnel should pay particular attention to these points to ensure reasonable standards of animal welfare.

#### 6. Poultry welfare:

##### Welfare programme

The conditions under which broilers are housed and the way that they are managed during their growing phase, transportation and slaughter are set down in several government/industry endorsed Model Codes of Practice designed to safeguard their welfare.

A model welfare program needs to be developed for pick-up, transport and broiler/chicken processing sectors. Processing unit shall incorporate elements of this welfare audit in their own quality plans and manuals.

A Model programme shall envisage following:

Poultry Suppliers and processors must have a documented program for poultry welfare envisaging following;

(a) Catching: Poultry intended for slaughter plant should be clean and in good health. Every reasonable precaution should be taken to minimize injury to poultry. The catcher needs to be trained to this effect.

(b) Transport: For transport of poultry crates shall be in good repair. There shall be no crate/cage damage that would allow injury to poultry or allow crates to accidentally open. Transport crates should not be over-filled and enough space should be provided to allow all poultry to lie down.

(c) Holding: Poultry held in storage sheds should be provided adequate ventilation and climate control such as fans or curtains.

(d) Stunning: Stunning equipment should be properly maintained to confirm that poultry are insensible prior to slaughter, and the time between stunning and slaughter should be limited to minimize any likelihood that poultry may regain consciousness prior to slaughter.

##### Economic performance and welfare:

High standards of poultry welfare and high levels of flock performance and economic performance are not incompatible - quite the contrary, they go hand in hand. It simply



makes good economic sense as well as being in the poultry's best interests to ensure that flocks are maintained in an environment, in which they are thermally comfortable, protected from injury, fed optimally and kept healthy. Therefore, all measures described elsewhere to ensure that chickens are kept in conditions which optimize their comfort (in terms of temperature, humidity, air flow and air quality), in which they are provided with water, shelter, and a high quality diet that matches their physiological needs, and which optimize their health have just as important effect in terms of poultry welfare as they do on the overall efficiency of the farming operation.

#### Poultry health and welfare:

When producing chicken meat in a welfare-friendly manner it is also important that the poultry receive prompt and appropriate medication and treatment to prevent and treat diseases if this should become necessary, and that they do not suffer any unnecessary pain, distress, fear or physical injury. It is also important that sick or injured poultry that cannot be adequately or successfully treated are culled quickly and in a humane manner so that they do not suffer.

#### Humane slaughter (poultry):

While the chickens are reared specifically for human consumption and they therefore at some stage have to be slaughtered, they should be slaughtered in a humane manner, and all poultry should be stunned (rendered insensible to pain) prior to slaughter.

Slaughter equipment at all supply facilities should be properly maintained to confirm that the poultry are slaughtered quickly.

#### 7. Ante-mortem inspection

(1) All animals shall be rested before slaughter and shall be subjected to ante-mortem examination and inspection well in advance of the time of slaughter.

(2) No animal which has been received into a slaughter hall for the purpose of being slaughtered shall be removed from the slaughter hall before being slaughtered except with the written consent of the Qualified Veterinary Doctor. An animal which, on inspection is found to be not fit for slaughter shall be marked as "suspect" and kept separately. Each such animal shall be marked as "suspect" only by or under the personal supervision of the Qualified Veterinary Doctor and the marking shall not be removed or obliterated except by the Qualified Veterinary Doctor himself.

(3) An animal showing signs of any disease at the time of ante-mortem inspection that would cause its carcass being ultimately condemned on post-mortem shall be marked as "condemned" and rejected.

(4) An animal declared as "suspect" on ante-mortem inspection but which does not plainly show any disease or condition that would cause its entire carcass to be condemned shall maintain its identity as "suspect" until its carcass and all organs are finally inspected by the Qualified Veterinary Doctor.

(5) No animal in a febrile condition shall be permitted for slaughter. No suspect animal shall be slaughtered until all other animals intended for slaughter on the same day have been slaughtered. All animals which, on ante-mortem inspection, show symptoms of railroad sickness, parturient paresis, rabies, tetanus or any other communicable diseases shall be marked as "condemned" and disposed of in accordance with the provisions contained in sub paragraph (8) below.

(6) Animals presented for slaughter and found in a dying condition on the premises of a factory due to recent disease shall be marked as "condemned" and disposed of as provided for "condemned" animals.

(7) Every animal which, upon examination, is found to show symptoms of or is suspected of being diseased or animals declared as "suspect" shall at once be removed for treatment to such special pen and kept there for observation for such period as may be considered necessary to ascertain whether the animal is diseased or not.

(8) All animals declared as "condemned" on ante-mortem inspection shall be marked as "condemned" and killed if not already dead. Such carcasses shall not be taken into the factory to

be slaughtered or dressed, nor shall they be conveyed into any department of the factory used for edible products.

8. Post-mortem inspection—

1. A careful and detailed post-mortem examination and inspection of the carcasses and parts thereof of all animals slaughtered shall be made soon after slaughter. All organs and parts of the carcasses and blood to be used in the preparation of meat food products shall be held in such a manner as to preserve their identity till the completion of the post-mortem inspection so that they can be identified in the event of the carcasses being condemned.

2. Every carcass including all detached parts and organs thereof which show evidence of any condition which will render the meat or any part or organ unfit for human consumption and which for that reason may require subsequent inspection, shall be retained by the Qualified Veterinary Doctor. The identity of such carcass including the detached parts and organs thereof shall be maintained until the final inspection is completed. Retained carcasses, detached parts and organs thereof shall be maintained until the final inspection is completed. Retained carcasses, detached parts and organs thereof shall in no case be washed, trimmed or mutilated in any manner unless otherwise authorized by the Qualified Veterinary Doctor.

3. No air shall be blown by mouth into the tissues of any carcass or part of a carcass.

4. Every carcass or part thereof which has been found to be unfit for human consumption shall be marked by the Qualified Veterinary Doctor as "Inspected and condemned".

5. All such condemned carcasses, parts and organs thereof shall remain in the custody of the Qualified Veterinary Doctor pending disposal at or before the close of the day on which they are marked "Inspected and condemned" in accordance with sub-paragraphs (11), (12) and (13) below.

6. Carcasses, parts and the organs thereof found to be sound, wholesome, healthful and fit for human consumption shall be marked as "Inspected and passed".

7. Carcasses found affected with anthrax before evisceration shall not be eviscerated but condemned and disposed of immediately in accordance with sub-paragraph (12) below. Any part of a carcass contaminated with anthrax infected material through contact with soiled instruments or otherwise shall be immediately condemned and disposed of as provided in sub-paragraph (12) below.

8. The portion of the slaughtering department including equipment, employees' boots and aprons, etc., contaminated by contact with anthrax material shall be cleaned and thoroughly disinfected immediately.

9. When on inspection only a portion of a carcass on account of slight bruises is decided to be condemned, either the bruised portion shall be removed immediately and disposed of in accordance with sub-paragraph (13) below or the carcass shall be retained and kept till such time it is chilled and the bruised portion removed and disposed of as provided above.

10. Post-mortem inspection shall be a detailed one and shall cover all parts of the carcass, the viscera, lymph glands and all organs and glands.

11. The post-mortem inspection shall be in accordance with the general rules laid down for such inspection in public slaughter houses under the control of local bodies besides special instructions that may be issued from time to time by the licensing authority.

12. All condemned carcasses, organs or parts thereof shall be completely destroyed in the presence of the Qualified Veterinary Doctor by incineration or denatured, after being slashed freely with a knife, with crude carbolic acid, cresylic-disinfectant or any other prescribed agent unless such carcasses, organs or parts thereof are sterilized for the preparation of bone-cum-meat meal before leaving the slaughter house premises, subject to sub-paragraph (13) below.

13. Carcasses, organs or parts thereof condemned on account of anthrax shall be disposed of either by (i) complete incineration or (ii) thorough denaturing with prescribed denaturant in the manner prescribed in the foregoing paragraphs and also in accordance with the rules and regulations prescribed by the local authority.

14. Destruction of condemned carcasses, organs or parts thereof shall be carried out under the direct supervision of the Qualified Veterinary Doctor.

15. If in the opinion of the Qualified Veterinary Doctor a carcass, organ or part thereof is to be held back for further detailed examination, the carcass, organ or part concerned shall not be released till the examination in detail is completed by the Qualified Veterinary Doctor and it is

declared thereafter by him as fit. When it is to be detained for detailed examination, the carcass, organ or part thereof shall be marked as "Held". If on subsequent inspection, the carcass, organ or part thereof is found to be unwholesome and unfit for human food, the Qualified Veterinary Doctor shall mark such a carcass, organ or part thereof as "condemned" and shall dispose it of as described in the foregoing paragraphs.

a. Sanitary and Hygienic Requirements for Meat processing units

Following Sanitary and Hygienic requirements shall be satisfied by the meat processing unit.

1. Location:

1.1 Meat processing unit should be located in areas not subjected to regular and frequent flooding and free from objectionable odours, smoke dust and other contaminants;

1.2 Roadways and areas serving the meat processing unit which are within its boundaries or in its immediate vicinity should have a hard paved surface suitable for wheeled traffic. There should be adequate drainage and provision for cleaning;

1.3 Where appropriate, meat processing unit should be so designed that access can be controlled.

2. Building and Facilities:

2.1 The meat processing unit should provide adequate working space for the satisfactory performance of all operations.

2.2 The construction should be sound and ensure adequate ventilation, good natural or artificial lighting and easy cleaning.

2.3 The meat processing unit should be laid out and equipped so as to facilitate proper supervision of meat hygiene including performance of inspection and control;

2.4 The meat processing unit should be of such construction as to protect against the entrance and harbouring of insects, birds, rodents or other vermin as well as the entry of environmental contaminants such as smoke, dust etc.

2.5 Buildings and facilities should be designed to provide separation by partition, location or other effective means, between those operations which may cause cross-contamination;

2.6 Meat processing unit should be laid out and equipped so as to ensure, that edible meat does not come into contact with floors, walls or other fixed structures, except those which are specifically designed for contact with meat;

2.7 The construction and lay out of any chilling room, freezing room, freezer store or freezer should satisfy the requirements of these rules;

2.8 In meat handling areas :

— Floors should be of waterproof, non-absorbent, washable non-slippery and made of nontoxic materials, without crevices and should be easy to clean and slope sufficiently for liquids to drain to trapped outlets;

— Walls should be of waterproof, non-absorbent, washable and nontoxic materials and should be light coloured. Up to a height of at least 1.5 metres, they should be smooth and without crevices, and should be easy to clean , space between walls and ceilings should be sealed and covered to facilitate cleaning;

— Ceilings should be so designed, constructed and finished as to prevent any accumulation of dirt and minimize condensation, mould development and flaking and should be easy to clean;

— Windows and other openings should be so constructed as to avoid accumulation of dirt and those which open should be fitted with insect screen. Screens should be easily movable for cleaning and kept in good repair. Internal window sills, if present, should be sloped to prevent use as shelves;

- Doors should have smooth, non-absorbent surfaces and where appropriate, be self-closing and close fitting; and
- Stairs, lift cages and auxiliary structures such as platforms, ladders, chutes, should be so situated and constructed as not to cause contamination of meat. They should be capable of being effectively cleaned. Chutes should be constructed with inspection and cleaning hatches;

2.9 The use of construction materials which cannot be adequately cleaned and disinfected such as wood, should be avoided unless its use would clearly not be a source of contamination, and

2.10 Office accommodation should be provided for the use of the meat inspection agency.

### 3. Sanitary Facilities:

#### 3.1 Water Supply:

3.1.1. Supply of potable water under pressure should be available with facilities for its storage, where necessary for distribution, and with protection against contamination;

3.1.2. An supply of hot potable water should be available at all times during working hours;

Note - This provision is intended to cover water for both cleaning purposes and the destruction of microorganisms (especially those pathogenic to man) on knives, utensils etc., and coming into direct contact with meat. For cleaning purposes the temperature of the water should be 65 degree Celsius. The hot water for disinfection purposes should be at 82 degree Celsius and dispensed in such a way (e.g. in specially designed boxes near the working area) that blades of knives etc., can be submerged in the water for a contact time (no less than two minutes). Often this water supply is separate from other hot water supplies used for cleaning, hand washing etc. But if there is only one hot water supply the term "adequate" should mean that even at times where large amounts of hot water is used (e.g. during cleaning operations) the water supply from any tap in the establishment should not be decreased;

3.1.3 Ice should be made from potable water and should be manufactured, handled and stored so as to protect it from contamination; and

3.1.4 Steam used in contact directly with meat should be produced from potable water and contain no substances which may be hazardous to health or may contaminate the food.

3.2 Effluent and Waste Disposal - Meat processing unit should have an efficient effluent and waste disposal system. All effluent lines (including sewer systems) should be large enough to carry peak loads and should be constructed in such a manner as to avoid contamination of potable water supplies. Biological oxygen demand level shall be less than 1500, and for that an effluent treatment plant, if necessary may be installed.

3.3 Facilities for Storage of Waste and Inedible Material. - Facilities should be provided for the storage of waste and inedible material prior to removal from the establishment. These facilities should be designed to prevent access to waste or inedible material by pests and to avoid contamination of food, potable water and equipment or building.

3.4 Changing Facilities and Toilets.- Suitable and conveniently located changing facilities and toilets should be provided in all establishments. Toilets should be so designed as to ensure hygienic removal of waste matter. These areas should be well lit and ventilated and should not open directly on to food handling areas. Hand washing facilities with warm or hot and cold water with suitable hygienic means of drying hands should be provided adjacent to toilets and in such a position that the employee must pass them when returning to the processing area. Where hot and cold water are available, mixing taps should be provided. Where paper towels are used, a sufficient number of dispensers and receptacles should be provided near to each washing facility. Taps of non-hand operable type are preferable. Notices should be posted directing personnel to wash their hands after using the toilets.

#### 3.5 Hand Washing Facilities in Processing Areas:

3.5.1 Adequate and conveniently located facilities for hand washing and drying should be provided wherever the process demands. Where appropriate, facilities for hand

disinfection should be provided. The facilities should be furnished with properly trapped waste pipes leading to drains.

3.5.2 All rooms used for deboning, preparing, packing or other handling of meat should be equipped with adequate facilities for cleaning and disinfecting implements, conveniently located for the use of personnel during operations. These facilities are for use exclusively in the cleaning and disinfection of knives, steels, cleavers, saws and other implements.

3.5.3 All facilities for cleaning and disinfecting implements should be of such nature and sizes as to permit proper cleaning and disinfection of implements. These facilities should be constructed of corrosion-resistant materials and should be capable of being easily cleaned.

3.5.4 All facilities for cleaning and disinfecting of implements should be fitted with suitable means of supplying hot water in sufficient quantity at all times while meat is being handled in that part of the Meat Processing Unit.

3.5.5 Lighting - Adequate natural or artificial lighting should be provided throughout the meat processing unit. Where appropriate, the lighting should not alter colours and the intensity should not be less than

540 Lux (50 foot candles) at all inspection points.

220 Lux (20 foot candles) in work rooms.

110 Lux (10 foot candles) in other areas.

Light bulbs and fixtures suspended over meat in any stage of production should be of a safety type and protected to prevent contamination of meat in case of breakage.

3.6 Ventilation - Ventilation should be provided to prevent excessive heat, steam condensation, dust and to remove contaminated air. The direction of the air flow should never be from a dirty area to clean area. Ventilation openings should be provided with an insect screen or other protective enclosure of non-corrodible material. Screens should be easily removable for cleaning.

#### 4. Equipment and Utensils :

4.1 Materials - All equipments, implements and utensils used in establishments which come into contact with exposed meat and meat products should present a smooth impervious surface and be resistant to corrosion and should be made of material which is non-toxic, does not transmit odour or taste, is free from pits and crevices, is non-absorbent and capable of withstanding repeated exposure to normal cleaning and disinfection. Such equipment should be so constructed that they may be easily cleaned.

#### 4.2 Sanitary Design, Construction and Installation:

4.2.1 All equipments and utensils should be so designed and constructed as to prevent hygiene hazards and permits easy and thorough cleaning and disinfection and where practicable be visible for inspection. Stationary equipment should be installed in such a manner as to permit easy access and thorough cleaning.

4.2.2 Containers for inedible material and waste should be leak proof, constructed of non-corrosive metal or other suitable impervious materials which should be easy to clean or disposable and where appropriate, able to be closed securely; and

4.2.3 All refrigerated spaces should be equipped with temperature measurement or recording devices.

4.3 Equipment Identification - Equipment and utensils used for inedible material or waste should be so identified and should not be used for edible products.

#### 5. Hygiene Requirements :

5.1 Maintenance. The buildings, rooms, equipment and all other physical facilities of the meat processing unit, including drains, should be maintained in good repair and in orderly condition. Except for rooms where meat processing or cleaning operations are performed, they should be free from steam, vapour and surplus water.

5.2 Cleaning and Disinfection - Cleaning and disinfection should meet the following requirements :

(i) Amenities provided for the use of employee and the inspection service including changing facilities, toilets and the inspection office space should be kept clean at all times.

(ii) If rooms, intended and most of the time used for the handling, preparation, processing, packaging on storage of meat, are used for any other food preparation purposes, then cleaning and disinfection are necessary immediately before and after such use.

(iii) The temperature in rooms for boning out and trimming should be controlled and held suitably low, unless cleaning of equipment and utensils are carried out at least every four hours;

(iv) To prevent contamination of meat, all equipments, implements, tables, utensils including knives, cleaves, knife pouches, saws, mechanical instruments and containers should be cleaned at frequent intervals during the day and immediately cleaned and disinfected whenever they come into contact with diseased material, infective material or otherwise become contaminated. They shall also be cleaned and disinfected at the conclusion of each working day.

(v) If any skip or trolley or any container used in a department where edible material is handled, enters an area where inedible material is handled it should be cleaned and disinfected immediately before re-entering the edible department.

(vi) Immediately after the cessation of work for the day or at such other times as may be required, the floors and walls should be cleaned to remove contamination. Floor drains should be kept in good condition and repair with strainers in place; and

(vii) Roadways and yards in the immediate vicinity of and serving the meat processing unit should be kept clean.

5.3 Hygiene Control Programme.-It is desirable that each meat processing unit in its own interest designates a single individual whose duties are diverted from production, to be held responsible for the cleanliness of the meat processing unit. His staff should be a permanent part of the organisation or employed by the organisation and should be well trained in the use of special cleaning tools, methods of dismantling the equipment for cleaning and in the significance of contamination and the hazards involved. A permanent cleaning and disinfection schedule should be drawn up to ensure that all parts of the meat processing unit are cleaned appropriately and that critical areas, equipment and material and designed for cleaning and/or disinfection daily or more frequently if required.

5.4 Storage and Disposal of Waste - Waste material should be handled in such a manner so as to exclude contamination of food or potable water. Precautions should be taken to prevent access to waste by pests. Waste should be removed from the meat handling and other working areas at intervals and at least daily. Immediately after disposal of the waste, receptacles used for storage and any equipment which has come into contact with the waste should be cleaned and disinfected. At least daily the waste storage area should also be cleaned and disinfected.

5.5 Dogs, cats or other pet animals should be not allowed to enter meat processing unit.

## 6. Pest Control

6.1 There should be an effective and continuous programme for the control of insects, birds, rodents or other vermin. Meat processing unit and surrounding areas should be regularly examined for evidence of infestation.

6.2 Should pests gain entrance to the meat processing unit or surrounding areas, eradication measures should be instituted. Control measures involving treatment with physical or chemical or biological agents should only be undertaken by or under direct supervision of personnel who have a thorough understanding of the potential hazards to health resulting from the use of these agents, including those which may arise from residues retained in the product. Such measures should be carried out in accordance with the recommendation of the official agency having jurisdiction and with the full knowledge of its inspector, and

6.3 Pesticides should only be employed if other precautionary methods cannot be used effectively. Only pesticides approved for use in the meat processing unit by competent authority should be used and the greatest care should be exercised to prevent any contamination of the meat equipment or utensils. Before pesticides are applied all meat should be removed from the room and all equipment and utensils should be thoroughly washed prior to being used again.

6.4 Handling and Storage of Hazardous substances - Pesticides or other substance which may represent a hazard should be labelled with a warning about their toxicity and use. Except as required for purpose of hygiene such substance which may contaminate meat packing material and ingredients should be handled and stored in a part of the meat processing unit which is not used for preparation, processing, handling, packing or storage of meat. They should be handled and dispensed only by authorised and properly trained personnel. Extreme care should be taken to avoid contamination of meat. However, materials employed in the construction and maintenance of an establishment may be used at any time with the approval of Food Safety Officer.

6.5 Personal Effects and Clothing : - Personal effects and clothing should not be deposited in meat handling areas.

6.6 Maintenance Tools - Cleaning and maintenance tools and products should not be stored in meat handling area.

#### 7. Personnel Hygiene and Health Requirements :

7.1 Medical examination - Persons who come into contact with meat in the course of their work should have a medical examination prior to their employment. Medical examination of a meat handler shall be carried out routinely and when clinically or epidemiologically indicated, at least once in 12 months.

7.2 Communicable Diseases - The management should take care to ensure that no person, while known or suspected to be suffering from, or to be a carrier of a disease likely to be transmitted through meat or while afflicted with infected wounds, skin infections, sores or with diarrhoea, is permitted to work in any area in any capacity in which there is any likelihood of such a person directly or indirectly contaminating meat with pathogenic microorganisms. Any person so affected should immediately report to the management that he is ill.

7.3 Injuries - Any person who is cut or injured should discontinue working with meat and until he is suitably bandaged should not be engaged in any meat processing unit in the preparation, handling, packing or transportation of meat. No person working in any meat processing unit should wear exposed bandage unless the bandage is completely protected by a water proof covering which is conspicuous in colour and is of such a nature that it cannot become accidentally detached. first aid facilities should be provided for this purpose.

7.4 Washing of Hands : Every person engaged in a meat handling area should wash his hands frequently and thoroughly with a suitable hand cleaning preparation under running potable water while on duty. Hands should always be washed before commencing work, immediately after using the toilets, after handling contaminated material and whenever else necessary. After handling diseased or suspect materials hands should be washed and disinfected immediately. Notices requiring hand-washing should be displayed.

#### 8. Personnel Cleanliness:

8.1 Every person engaged in an area in meat processing unit where meat is handled should maintain a high degree of personnel cleanliness while on duty, and should at all times while so engaged wear suitable protective clothing including head covering and foot wear, all of which should be washed unless designed to be disposed and which should be maintained in a clean condition consistent with the nature of the work in which the person is engaged.

8.2 Aprons and similar items should not be washed on the floor; and

8.3 Such items should not be left on equipment in the working area.

8.4 Personal Behavior : Any behavior which can potentially contaminate the meat such as eating, use of tobacco, chewing, spitting, should be prohibited in any part of meat processing unit used for the preparation, handling, packaging or transportation of meat.

8.5 Visitors: Every person who visits an area in any meat processing unit where meat is handled should wear clean protective clothing and head cover.

##### b) Sanitary & Hygienic Requirements for the Retail Meat Shops

For ensuring the hygiene and safety of meat being sold at retail meat shops, the following requirements should be followed under the supervision of the qualified Veterinary staff.

## 1. Location of Meat Shop

1. The meat shop / sale outlet should preferably be a unit of meat market located away from Vegetable, fish or other food markets and shall be free from undesirable odour, smoke, dust or other contaminants. Wherever a meat market is not available, individual meat shop can be set up considering the above factors, which have a direct bearing on the hygiene conditions of the premises and health of consumers.

(a) The minimum distance between the licensed meat shop and any place of worship should not be less than 50 meters;

(b) The condition of 100 meters distance will apply in case the premises situated directly opposite to the entry gate of religious place of any community.

2. All the meat shops located in the vicinity of religious places shall be fitted with black glass doors, which must be kept closed all times except in case of entry or exit. It must be the responsibility of the meat shop owners to maintain a high standard of hygiene not only inside the shops, but also in the way leading to the shops road pavements or other adjoining place, particularly for insanitary materials originating from the meat business for example, blood, part of offal, meat scraps etc.

## 2. Size of Meat Shops

2.1 Considering the constraints of commercial space in residential areas in concerned Panchayats / Municipalities the size of meat shops may vary according to the size of business and activities being carried out there in the meat shops.

2.2 The height of shop in all above categories of meat shops should be not less than 3 meters, while in case of air-conditioned meat shops, it should not be less than 2.5 meters.

## 3. Premises

3.1 The premises shall be structurally sound. The walls up to the height of minimum 5 feet from the floor level shall be made of impervious concrete material (e.g. glazed tiles or hygienic panels, etc.) for easy washing and cleaning purposes.

3.02 The floor should be made of impervious and non-slippery materials with a slope for easy cleaning and removal of filth, waste and dirty water. The slope of the floor shall not be less than 5 cm. for a floor of 3 meters.

3.03 All the fittings in the stall should be of non-corroding and non-rusting type.

3.04 All processing tables, racks, shelves, boards, etc. shall have zinc/aluminium/stainless steel/marble-granite top to facilitate proper cleaning.

3.05 A sign board indicating the type of meat sold shall be displayed prominently. Nothing else but meat should be sold at the premises.

3.06 The premises should have provision of sewer connection for drainage of wastewater.

3.07 There should be provision of continuous supply of potable water inside the premises. In case the water supply is from bore well the arrangement for softening of water for making the same potable shall be made in the premises and intermittent store arrangement should be made.

3.8 The door of the shop should be of self-closing type. The door of the shop should be of dark glass top and be kept closed. No carcasses should be kept in a manner so as to be seen by the public from outside.

## 4. Ventilation

4.1 The meat shop should be ventilated with facility of cross ventilation and may be provided with at-least one electric fan and one exhaust fan.

4.2 The rails and hanging hooks, if provided for hanging carcasses, should be of non-corrosive metal. The non-corrosive hanging hooks for carcasses shall be 30 cm. apart and the distance between rails shall be 60 to 70 cm. depending upon the size of animals slaughtered and carcasses hanged.

## 5. Equipment and Accessories



5.1 The meat shop should have suitable arrangement for fly proofing in the form of air-curtains, flytraps, etc.

5.02 It should have display cabinet type refrigerator of size for maintaining a temperature of 4 to 8 degrees C. or freezing cabinet if the meat is to be stored for more than 48 hours.

5.03 The weighing scales used shall be of a type which obviates unnecessary handling and contamination and the plate sketch of the scale shall be made of stainless steel or nickel coated

5.04 The knives, tools and hooks used shall be made of stainless steel. Sufficient cupboards or racks should be for storing knives, hooks, clothes and other equipments.

5.05 There should be a provision of geysers in all the meat shops to have hot water at a temperature not less than 82 degree C to clean the premises and equipment used in meat shop.

5.06 Washbasin made of stainless steel / porcelain shall be provided with liquid soap dispenser or other soap and nail brush for thorough cleaning of hands.

5.07 The chopping block should be of food-grade synthetic material, which does not contaminate the meat. If the block is of wooden it should be of hardwood trunk, which is solid enough and should not contaminate the meat.

5.8 A waste bin with a pedal operated cover shall be provided in the premises for collection of waste material.

## 6. Transportation

6.1 The transportation of carcasses from the slaughter house to the premises shall be done under hygienic conditions in boxes of adequate size linked with zinc/aluminium/stainless steel or wire gauze meat safes, which must be washed daily.

6.2 The transportation of carcasses from the slaughter house to the meat shops should be done in insulated refrigerated vans. Under no circumstances, carcasses will be transported in vehicles used for commuting of human beings, or in an exposed condition.

## 7. Pest Control

7.1 The meat shop should have an effective and continuous programme for control of insects, rodents or other vermin within the premises. The surrounding area of the shop should also be free from insects, birds, rodents and other vermin.

7.02 The pest control measures adopted by the owner of shop should be kept as a record in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration/Corporation at the time of inspection.

7.03 Chlorinated hydrocarbons, organo-phosphorus compounds and synthetic perithroids, rodenticides etc should neither be used as pesticide nor shall be stored at the meat shop.

7.4 No live animals or birds should be allowed inside or adjacent to the meat shops.

## 8. Personnel Hygiene

8.1. Every person employed for meat handling at the meat shop shall be medically examined annually by a authorized registered medical practitioner and examination shall include examination of sputum and x-ray of the chest for tuberculosis. The medical examination shall also include examination of stool for protozoal and helminthic infestations for those parasites, which are transmitted by ingestion, and also for the presence of enteropathogenic Escherichia coli, Salmonella, Shigella species and Vibrio cholera.

8.02. A certificate / records of medical fitness of all workers handling meat should be kept as a record in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration / Corporation at the time of inspection.

8.03. No worker suspected to be suffering from fever, vomiting, diarrhoea, typhoid, dysentery or boils, cuts and sores and ulcers (however small) shall be permitted to work in the meat shops.

8.04 All the workers of the meat shop shall keep their finger nails short and clean and wash their hands with soap or detergent and hot water before commencement of work and after each absence, especially after using sanitary conveniences.

8.05. Eating, spitting, nose cleaning or the use of tobacco in any form or chewing betel leaves shall be prohibited within the premises of meat shop processing, packing and storage area of the unit. "No smoking "and "No Spitting "boards shall be prominently displayed in the shop.

## 9. Sanitary Practices

9.1 The chopping block should be sanitized daily by covering its top with sea-salt, after cleaning it with hot water at close of business activity.

9.02 The floor should be washed with appropriate disinfectant / detergent / sanitizer at the start and close of the business each working day.

9.03 There should be high standard of cleanliness and tidiness in the working area of shop with no organic or other material lying on the floor.

9.04 The refrigerated / freezing cabinet should be regularly cleaned and well maintained. 9.05 Slaughtering of animal / birds inside the shop premises should be strictly prohibited. 9.06 The carcasses shall not be allowed to be covered with wet-clothes.

9.07 Wholesome meat obtained from the authorized slaughter house shall only be sold at the meat shops and a record thereof shall be kept in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration Corporation at the time of inspection.

9.08 Waste bins should be emptied, transported for disposal as per the arrangements made by the concerned Panchayats / Municipalities and waste bin / dhalau ( burial pits) shall be treated daily with a disinfectant.

9.9 The premises shall not be used for residential purposes nor it shall communicate with any residential quarter. No personal belonging like clothing, bedding, shoes etc. shall be kept in the premises. Only dressed carcasses of clean meat shall be stored at the premises.

9.10 Hides, skins, hoofs, heads and unclean gut will not be allowed to be stored in the premises at any time.

9.11 The chopping instruments should be cleaned with hot water at a temperature of 82 degree C.

9.12 The preparation of food of any type inside the meat sale outlet should be strictly prohibited.

9.13 The meat obtained from unauthorized sources or unstamped meat is liable to be confiscated and destroyed.

9.14 Waste of the meat shop to be disposed of packed in heavy polythene bags in dhalaos (burial pits).

## 10. Other Requirements

10.1 The prepared meat shall be packed in waxed paper and then placed in polyethylene bags or packed directly in bags made of food grade plastics.

10.02 Failure to comply with any of these instructions may entail legal action against the defaulters, and even result in cancellation of license by the appropriate authority of the concerned Panchayats/Municipalities/Corporation.

10.03 No Objection Certificate from law and order point of view to be obtained from police department or the concerned Panchayats/Municipalities/Corporation before grant of license for buffalo meat and pork shop.

10.04 The concerned Panchayats/Municipalities responsible for local administration in the country shall appoint qualified Veterinary staff for the meat inspection (Ante mortem and Post mortem inspection) or if regular staff cannot be made available or deployed for the purpose shall make contractual arrangements for availing the services of qualified Veterinary staff for meat inspection available with the Animal Husbandry Depts. of the concerned state/UT in the country.

10.05 Retail meat shop license shall be granted subject to fulfillment of all the above technical and administrative instructions in relation to the trade.

## Part - V

Specific Hygienic and Sanitary Practices to be followed by Practices to be followed by  
Food Business Operators engaged in catering / food service  
establishments

In addition to Part-II the Catering/ food Service establishment in which food is being handled, processed, manufactured, stored, distributed and ultimately sold to the customers and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standard as specified below.

It includes premises where public is admitted for repose or for consumption of any food or drink or any place where cooked food is sold or prepared for sale. It includes:

- (a) Eating Houses
- (b) Restaurants & Hotels
- (c) Snack Bars,
- (d) Canteens (Schools, Colleges, Office, Institutions)
- (e) Food Service at religious places
- (f) Neighbourhood Tiffin Services / dabbawalas
- (g) Rail and airline catering
- (h) Hospital catering

## I. GOOD MANUFACTURING PRACTICES FOR WHOLE PREMISE

### I. Food Preparation Areas

The following rules apply to rooms where food is prepared. There will be no smoke nuisance in the food preparation area. Wherever cooking or frying of any kind is being done, a chimney having appropriate suction capacity as per the size of the kitchen has to be installed prior to start of business.

### II . Hand washing facilities and toilets

(1) Adequate number of wash-hand basins made of porcelain/stainless steel shall be provided along with soap to wash hands, with hot and cold running water, and materials for cleaning hands and drying them hygienically. Clean and dry towels shall be kept for the use of customers.

(2) Separate sinks must be provided, where necessary, for washing raw food and cleaning equipment.

(3) Sinks with a draining board, detergent and hot water shall be provided to ensure proper cleaning of utensils, crockery and cutlery there will be a separate place for washing pots and pans.

### 2. Changing facilities:

Facilities for staff to change their clothes, where necessary must be provided.

## II. GOOD FOOD HYGIENE PRACTICES

### 1. Cleaning

- o Food areas and equipment between different tasks, especially after handling raw food shall be cleaned.
- o The surface shall be thoroughly cleaned in case if somebody spills food / water / drink.
- o A systematic cleaning schedule and instructions has to be developed by the FBO.
- o Food handlers should strictly follow the systematic cleaning schedule to make sure that surfaces and equipment are cleaned when they need to be.

The schedule should include:

- o what needs to be cleaned
  - o how often it needs to be cleaned
  - o how the cleaning should be done
- Cleaning instructions should indicate:

- what cleaning products should be used
- how the products should be stored ( away from raw, cooked, packed food) and used
- how much they should be used or diluted
- how long that should be left in contact with the surface (following the manufacturer's instructions)

### 1.Raw materials

1.Raw materials shall be purchased from reliable and known dealers and checked for visible deterioration & off- odour.

2. There should be no physical hazards and foreign body contamination.

1. Raw paste, sauces etc. should be stored in properly covered containers made of food grade material and checked regularly for fungal growth, deterioration etc.

#### Preparation of fruits/ vegetables:

(1) Fruits and vegetables that have been protected from cross-contamination and properly conserved should be used.

(3) Whole fruits and vegetables should be washed in potable water before being cut, mixed with other ingredients. Uncooked, ready-to-eat fruits & vegetables should be with 50 ppm chlorinated water before cutting, peeling or serving.

(4) Fruits and vegetables should be peeled, squeezed and/or cut, as appropriate, with clean equipment/ utensils made of non-absorbent food grade materials.

(5) Previously prepared fruits/vegetables should be kept in clean and properly covered food grade containers under refrigeration or at a maximum temperature suitable for the product in question.

#### Preparation of Non-veg. Products:—

(1) Raw meat and processed meat should be separated from other foods; items and surfaces.

(2) Separate items (e.g. cutting boards, dishes, knives) and preparation area for raw meats and poultry and marine products should be used to avoid cross contamination of food.

(3) Hands should be thoroughly washed before switching from preparing raw meat or poultry or marine products to any other activity.

(4) Ensure proper cooking of all non vegetarian products.

(5) Used surfaces should be washed with antibacterial cleaning agent, rinsed properly with water and sanitized after preparing raw meat/poultry.

(6) Ensure that frozen products are thawed as per point no. 9 under special requirements for high risk foods.

### 3.Cooking

(a) The preparation/ processing/ cooking should be adequate to eliminate and reduce hazards to an acceptable level which might have been introduced at the raw food level.

(b) The preparation/ processing/ cooking methods should ensure that the foods are not re- contaminated.

(c) The preparation/ processing/ cooking of veg. & non-veg. products should be segregated.

(d) Whenever cooking or reheating of food is done, it should be hot all the way through, It is especially important to make sure that food is cooked thoroughly.

(e) Re-use of cooking oil should be avoided.

(f) Food hot held at 60°C and cooled at 21°C within 2 hrs or cooled to 5°C in 4 hours and thereafter refrigerated might be reheated.

(g) Reheated food must reach a minimum internal temperature of 74°C. When using microwave to reheat, food must reach a minimum temperature of 74°C and stayed covered for 5 mins to allow the temperature to equilibrate.

- (h) Reheat food quickly in ovens, steamer, microwave oven and/or on top of range in a steam kettle.
- (i) Never reheat food on a steam table, in a bain marie, in a bun drawer and/or under a heat lamp.
- (j) In case of reheating of oil use maximum three times to avoid the formation of trans fat. It is ideal to use once if possible.

#### 4. Chilling

- Semi cooked or cooked dishes and other ready-to-eat foods such as prepared salads and desserts having short shelf life should not be left standing at room temperature.
- Chilled food intended for consumption should be cold enough.
- Food items that need to be chilled should be put straight away into the fridge.
- Cooked food should be cooled as quickly as possible and then put it in the fridge.
- Chilled food should be processed in the shortest time possible.
- Fridge and display units should be cold enough and as per requirement.
- In practice, fridge should be set at 5°C to make sure that food is kept in chilled condition. Also, fridge and display units should be maintained in good working condition to avoid food spoilage and contamination.

#### 4. Cross-contamination

Following should be done to avoid cross - contamination.

- Raw food/ meat/poultry and ready-to-eat foods should be kept separate at all times.
- Hands should be thoroughly washed after touching raw meat/poultry.
- Work surfaces, chopping boards and equipments should be thoroughly cleaned before the preparing of food starts and after it has been used.
- Separate chopping boards and knives for raw fruit/ vegetables/ meat/poultry and ready-to-eat food should be used.
- Raw meat/poultry below ready-to-eat food should be kept in the fridge.
- Separate fridge for raw meat/poultry should be kept.
- Staff should be made aware how to avoid cross-contamination.

### III. PERSONAL HYGIENE

0. High standards of personal hygiene should be maintained.

1. All employees handling food should wash their hands properly:

- before preparing food
- after touching raw food or materials, specially meat/poultry or eggs
- after breaks
- after using the toilet
- after cleaning the raw materials or utensils / equipments

3. Street shoes inside the food preparation area should not be worn while handling & preparing food.

4. Food handlers should ensure careful food handling & protect food from environmental exposure.

5. Food handlers should not handle soiled currency notes to avoid cross contamination.

### IV. TRANSPORTATION AND HANDLING OF FOOD

(1) The vehicle/transportation being used to carry cooked/prepared/processed food should be clean and, dedicated for this purpose and should not carry anything else.

(2) Time required for transportation should be minimum, to avoid microbial proliferation.

(3) Cooked food served hot should be kept at a temperature of at least 60°C to prevent microbial growth.

(4) Cooked food to be served cold should be kept below 50 C to prevent growth of pathogens.

(5) All foods during transportation must be kept covered and in such a way as to limit pathogen growth or toxin formation by controlling time of transportation, exposure, temperature control and using safe water for cleaning etc.

(7) Handling of food should be minimal. It should be ensured that utensils, crockery, cutlery and specially hands of the food handlers/seller are clean and sanitized.

(8) All surplus food and unused thawed food should be discarded.

(9) Food to be kept for cold storage should be distributed in small volumes to ensure uniform cooling.

(10) Dry, fermented and acidified foods should be stored in cool and dry place.

(11) All packaged food viz. sterilized milk, bottled beverages, canned foods etc. should be stored properly during transportation to ensure that seals remain intact and undamaged.

#### V. STORAGE

1. It is very important to store food properly for the purpose of food safety. Following things must be ensured: ⌘ Foods should be cooked, stored and kept at right temperature

- ⌘ Raw meat/poultry should be stored separately from other foods
- ⌘ Veg. foods should always be stored above non-veg. foods and cooked foods above uncooked foods on separate racks in the refrigerator.
- ⌘ Storage temperature of frozen food should be -18oC or below.
- ⌘ Cooked food to be eaten later should be cooled quickly, and kept it in the refrigerator - It is advisable to put date on food packages or containers, using stickers or any other way of identification , before keeping inside the refrigerator to keep track of food prepared date wise and use accordingly to minimise wastage .
- ⌘ Storage instructions over food packaging should be followed.
- ⌘ Dried foods (such as grains and pulses) should be stored off the floor, ideally in sealable containers, to allow proper cleaning and protection from pests.

#### Stock rotation

The rule for stock rotation is FIFO (first in, first out) to make sure that older food is used first. This will help to prevent wastage.

#### VI. SPECIAL REQUIREMENTS FOR HIGH RISK FOODS

This section deals selectively with varieties of food which are high risk as per HACCP and may need special attention. The type of foods covered here are as follows:

##### 1. Cut fruits/salads, fresh juices and beverages

(1) Fresh fruits /vegetables cut or juiced should be used immediately; however, short storage should be only under refrigeration in sanitized and properly covered vessels.

(2) Water used in beverages should be potable.

(3) Ice used should be made of potable water only.

(4) Food or beverages should not be stored in the same container used to store the ice intended for consumption.

(5) Juice concentrates must be checked regularly for any fungal growth / change of colour, odour or gas formation in the bottle.

(6) Juice dispensing machine should be cleaned and rinsed with water regularly.

##### 2. Confectionery products

(1) Prepared confectionery products should be kept in airtight containers and displayed hygienically.

- (2) Cream to be used should be stored covered under refrigeration.
- (3) Finished products should be refrigerated with proper labels indicating date of expiry.
- (4) Products should be properly wrapped/ packaged after proper cooling.

### 3. Meat, poultry & fish products

- (1) Non veg. products/raw materials should be purchased (chilled products temperature should be at 5°C or below and frozen products at -18 deg C or below) from authorized/ licensed slaughter houses/vendors.
- (2) Processing area should be cleaned and disinfected promptly.
- (3) Preparation and processing of meat, poultry and marine products should be separate.
- (4) Non-veg. products are washed with potable water before use.
- (5) Non-veg. products are cooked thoroughly (core temperature 75°C) for at least 15 seconds or an effective time/temperature control e.g. 65 °C for 10 minutes, 70 °C for 2 minutes.
- (6) Non-veg. products should be stored covered in refrigerator below the veg. products.
- (7) Raw and cooked products should be stored physically separated with cooked products at the top.
- (8) All refuse/waste should be promptly removed from preparation area.

### 4. Water based chutneys, sauces etc.

- (1) All fruits/vegetables should be washed properly before processing.
- (2) Clean and disinfected chopping boards/grinding stone/machine should be used.
- (3) Personal hygiene of food handlers need to be ensured.
- (4) Water used in the chutneys should be safe and potable.
- (5) Only permitted food additives should be used, if required, and be added in recommended quantities only.
- (6) Spoiled products should be discarded immediately after confirmation of spoilage (change in colour/ texture/ odour).
- (7) Sauces and chutneys should be stored in glass/food grade plastic containers with proper lids.
- (8) Clean and intact containers should be used for storing sauces and chutneys.
- (9) Sauces and chutneys should be stored in refrigerator when not in use.
- (10) Perishable/uncooked chutneys should be consumed immediately.

### 5. Foods transported to point of sale from the point of cooking

- (1) Food should be reheated more than 74°C before consumption.
- (2) Food should be consumed or served for consumption within 4 hours of reheating.

### 6. Foods with Gravy

- (1) Food products should not be stored at room temperature for more than 2 hours during display or sale.
- (2) For prolonged storage, foods should be stored in refrigerators or kept for hot holding at or above 60°C.
- (3) No water should be added after cooking/reheating/boiling.

### 7. Fried Foods

- (1) Good quality / branded oils/fats should be used for food preparation, frying etc.
- (2) Use packaged oil only.
- (3) Use of oils with high trans fats (like vanaspati) should be avoided as far as possible.
- (4) Re-heating and reuse of oil should be avoided as far as possible. Avoid using leftover oil wherever possible.

### 8. Adding ingredients after cooking

- (1) Ingredients added to the cooked food should be thoroughly washed/ cleaned.
- (2) After cooking or post cooked mixing, the food should be used immediately.
- (3) Garnishes etc., if added, should be prepared using fresh, thoroughly washed and freshly cut vegetables and used immediately.

Reuse of cooked food is not recommended.

- Potentially hazardous foods and high risk foods such as hollandaise sauce, refried beans, scrambled eggs and cut fruits are to be discarded.
- All food at banquet setting that has been on display are to be discarded.
- Food kept at more than 60°C during service may be reused, only by following the procedure indicated below:
- never mix leftover with fresh product. If in doubt, throw out the product.
- Reheat leftover food temperature to more than 74°C

### 8. Thawing of Frozen Products.

#### *Thawing-In Refrigerator*

- Items being thawed should be labelled with defrost date to indicate the beginning of 2nd shelf life.
- Thaw food at 5°C or less.
- Temperature controlled thawing is recommended for meat, poultry and fish.
- Any other means of thawing apart from running water and microwave is not allowed.

#### *Thawing In Running Water*

*Items being thawed should be labelled with date and time.*

- Thawing in running water advisable shellfish and seafood.
- Thawing in running water should not exceed 90 minutes.
- Ensure air break between tap and water.
- Use sanitized food grade container.
- Sink must not be used for other purposes during thawing
- After thawing, product must be used within 12 hours.
- Cold running water (from mains) should be at 15°C or less

[F.No. 2-15015/30/2010]

V.N. GAUR,  
Chief Executive Officer



**MINISTRY OF HEALTH AND FAMILY WELFARE**  
**(Food Safety and Standards Authority of India)**

Notification

New Delhi, dated the 1<sup>st</sup> August,

2011

F.No. 2-15015/30/2010 Whereas in exercise of the powers conferred by section clause (e) of sub section (2) of section 92 read with 16 of Food Safety and Standards Act, 2006 (34 of 2006) the Food Safety and Standards Authority of India proposes to make Food Safety and Standards Regulations in so far they relates to Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011, and;

Whereas these draft Regulations were published in consolidated form at pages 1 to 776 in the Gazette of India Extraordinary Part III – Sec. 4 dated 20<sup>th</sup> October 2010 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of the period of thirty days from the date on which the copies of the Gazette containing the said notification were made available to the public;

And whereas the copies of the Gazette were made available to the public on the 21<sup>st</sup> October 2010;

And whereas objections and suggestions received from the stakeholders within the specified period on the said draft Regulations have been considered and finalized by the Food Safety and Standards Authority of India.

Now therefore, the Food Safety and Standards Authority of India hereby makes the following Regulations, namely,— FOOD SAFETY AND STANDARDS (FOOD PRODUCTS STANDARDS AND FOOD ADDITIVES)

REGULATIONS, 2011

CHAPTER 1

GENERAL

: Title and commencement

: These regulations may be called the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

: These regulations shall come into force on or after 5<sup>th</sup> August, 2011, except the regulations 2.1.7.(1)(2)(3)(4), 2.1.8(1)(3), 2.1.11 (1)(2), 2.1.12(1), including table 14 of Appendix A and table 2 of Appendix B which shall come in to force after six months from that date.

Provided that wherever the standards given in these regulations are at variance with any of the provisions of the licenses already granted, Food Business Operator shall comply with the provisions of these regulations within six months from the date of commencement of the regulations.

: Definitions

In these regulations unless the context otherwise requires:

1. BOILED MILK means milk which has been brought to boil.
2. “De-oiled meal” means the residual material left over when oil is extracted by a solvent from any oil-bearing material;
3. DOUBLE TONED MILK means the product prepared by admixture of cow or buffalo milk or both with fresh skimmed milk, or by admixture of cow or buffalo milk or both that has been standardised to fat and solids-not-fat percentage given in the table below in 2.1.1:1 by adjustment of milk solids. It shall be pasteurised and shall show a negative Phosphatase Test. When fat or dry non-fat milk solids are used, it shall be ensured that the product remains homogeneous and no deposition of solids takes place on standing.
4. “Hydrogenation” means the process of addition of hydrogen to an edible vegetable oil using a catalyst to produce a fat with semi-solid consistency;
5. Flavoured Milk, by whatever name called, may contain nuts (whole, fragmented or ground) chocolate, coffee or any other edible flavour, edible food colours and cane sugar. Flavoured milk shall be pasteurised, sterilised or boiled. The type of milk shall be mentioned on the label.

6. Full Cream Milk means milk or a combination of buffalo or cow milk or a product prepared by combination of both that has been standardised to fat and solids-not-fat percentage, given in the table below in 2.1.1:1, by adjustment/addition of milk solids, Full Cream Milk shall be pasteurised. It shall show a negative phosphatase test. It shall be packed in clean, sound and sanitary containers properly sealed so as to prevent contamination.

7. 'Irradiation' means any physical procedure, involving the intentional exposure of food to ionizing radiations.

8. 'Irradiation facility' means any facility which is capable of being utilized for treatment of food by irradiation.

9. 'Irradiated food' means articles of food subjected to radiation by :—

(i) Gamma Rays;

(ii) X-rays generated from machine sources operated at or below an energy level of 5 million electron volts; and

(iii) Sub-atomic particles, namely, electrons generated from machine sources operated at or below an energy level of 10 million electron volts, to dose levels as specified in Schedule I of the Atomic Energy (Control of Irradiation of Food) Rules 1991.

10. MILK is the normal mammary secretion derived from complete milking of healthy milch animal without either addition thereto or extraction therefrom unless otherwise provided in these Regulations. It shall be free from colostrum. Milk of different classes and of different designations shall conform to the standards laid down in the Table below in 2.1.1:1

Total urea content in the milk shall not be more than 700 ppm

11. MIXED MILK means a combination of milk of cow, buffalo, sheep, goat or any other milch animal and may be a combination of any of these milk which has been made and conforms to the standards given in the table below in 2.1.1:1.

12. MILK PRODUCTS means the products obtained from milk such as cream, malai, curd, skimmed milk curd, chhanna, skimmed-milk chhanna, cheese, processed cheese, ice-cream, milk ices, condensed milk-sweetened and unsweetened, condensed skimmed milk-sweetened and unsweetened, milk powder, skimmed milk powder, partly skimmed milk powder, khoa, infant milk food, table butter and desi butter.

Milk products shall not contain any substance not found in milk unless specified in the standards.

13. "Margarine" means an emulsion of edible oils and fats with water;

14. 'Operator of irradiation facility' means any person appointed as such by licensee who satisfies the qualifications and requirements as for training specified in Schedule II of the Atomic Energy (Control of Irradiation of Food) Rules, 1991

15. PASTEURISATION—

The terms "Pasteurisation", "Pasteurised" and similar terms shall be taken to refer to the process of heating every particle of milk of different classes to at least 63<sup>0</sup>C and holding at such temperature continuously for at least 30 minutes or heating it to at least 71.5<sup>0</sup>C and holding at such temperature continuously for at least 15 seconds or an approved temperature time combination that will serve to give a negative Phosphatase Test.

All pasteurised milk of different classes shall be cooled immediately to a temperature of 10<sup>0</sup> C, or less

16. RECOMBINED MILK means the homogenised product prepared from milk fat, non-fat-milk solids and water. Recombined milk shall be pasteurised and shall show a negative Phosphatase test.

17. "Refined vegetable oil" means any vegetable oil which is obtained by expression or solvent extraction of vegetable oil bearing materials, deacidified with alkali and/or by physical refining and/or by miscella refining using permitted food grade solvents and/or degumming followed by bleaching with absorbent earth and/or activated carbon and deodorized with steam without using any other chemical agents

18. "Refining" means a process by which an expressed vegetable oil or a solvent-extracted oil is deacidified—

(i) With alkali, or

(ii) by physical refining, or both, or

(iii) By miscella refining using permitted food grade solvent, followed by bleaching with absorbent earth and/or activated carbon or both of them and deodorized with steam without using any other chemical agent;

(iv) refining if required may include the process of degumming using phosphoric/citric acid.

19. SKIMMED MILK means the product prepared from milk from which almost all the milk fat has been removed mechanically.

20. STERILISATION :The term “sterilisation when used in association with milk, means heating milk in sealed container continuously to a temperature of either 115<sup>0</sup> C for 15 minutes or at least 130<sup>0</sup> C for a period of one second or more in a continuous flow and then packed under aseptic condition in hermetically sealed containers to ensure preservation at room temperature for a period not less than 15 days from the date of manufacture;

21. STANDARDISED MILK means cow milk or buffalo milk or sheep milk or goat milk or a combination of any of these milk that has been standardised to fat and solids-not-fat percentage given in the table below in 2.1.1:1 by the adjustment of milk solids. Standardised milk shall be pasteurised and shall show a negative Phosphatase Test.

22. “Solvent-extracted oil” means any vegetable oil obtained from oil-bearing material by the process of extraction by a solvent;

23. “Solvent-extracted edible flour” means the ground material obtained from specially prepared deoiled meal, that is, the residual material left over when oil is extracted by a solvent from oil cake immediately following the single- pressing of good quality edible oilseeds;

24. TONED MILK means the product prepared by admixture of cow or buffalo milk or both with fresh skimmed milk; or by admixture of cow or buffalo milk or both that has been standardised to fat and solids-not-fat percentage given in the table below in 2.1.1:1 by adjustment of milk solids. It shall be pasteurised and shall show a negative Phosphatase Test. When fat or dry non-fat-milk solids are used, it shall be ensured that the product remains homogeneous and no deposition of solids takes place on standing.

25. “Vegetable oils” means oils produced from oilcakes or oilseeds or oil-bearing materials of plant origin and containing glycerides;

26. “Vegetable oil product” means any product obtained for edible purposes by subjecting one or more edible oils to any or a combination of any of the processes or operations, namely, refining, blending, hydrogenation or interesterification and winterization (process by which edible fats and oils are fractioned through cooling), and includes any other process which may be notified by the Central Government in the official Gazette;

CHAPTER 2  
FOOD PRODUCT STANDARDS

: DAIRY PRODUCTS  
AND ANALOGUES

: MILK

1. The standards of different classes and designations of milk shall be as given in the table below. Milk shall conform to both the parameters for milk fat and milk solids not fat, independently, as prescribed in columns (4) and (5) of the said table:

Table

Class of Milk	Designation	Locality	Milk Fat	Minimum percent Milk solids not fat
(1)	(2)	(3)	(4)	(5)
Buffalo Milk	Raw, pasteurized, boiled, flavoured, sterilized	Assam, Bihar, Chandigarh Delhi Gujarat Haryana Jharkhand Maharashtra Meghalaya Punjab Sikkim Uttar Pradesh	6.0	9.0

(1)	(2)	(3)	(4)	(5)
		Uttarakhand West Bengal		
Buffalo Milk	Raw, pasteurized, boiled, flavoured, sterlized	Andaman and Nicobar Andhra Pradesh Arunachal Pradesh Chhatisgarh Dadra & Nagar haveli Goa, Daman & Diu Himachal Pradesh Jammu& Kashmir & Karnataka Kerala Lakshadweep, Minicoy & Amindivi Island Madhya Pradesh Manipur Mizoram Nagaland Orissa Puducherry Rajasthan Tamil Nadu Tripura	5.0	9.0
Cow Milk	Raw, pasteurized, boiled, flavoured, sterlized	Chandigarh Haryana Punjab	4.0	8.5
Cow Milk	Raw, boiled, pasteurized, flavoured and sterlized	Andaman & Nicobar Islands Andhra Pradesh Arunachal Pradesh AssamBihar Chhatisgarh Dadra & Nagar haveli Delhi Goa, Daman & Diu Gujarat Himachal Pradesh Jammu & Kashmir Jharkhand Karnataka Kerala Lakshadweep, Minicoy & Adminidive Islands Madhya Pradesh Maharashtra Manipur Meghalaya Nagaland Puducherry Rajasthan Sikkim Tamil Nadu Tripura	3.5	8.5

(1)	(2)	(3)	(4)	(5)
		Uttar Pradesh Uttarakh and West Bengal		
Cow Milk	Raw, boiled, pasteurized, flavoured and sterlized	Mizoram Orissa	3.0	8.5
Goat or Sheep Milk	Raw, boiled, pasteurized, flavoured and sterlized	Chandigarh Chhatisgarh Haryana Kerala Madhya Pradesh Maharashtra Punjab Uttar Pradesh Uttarakhand	3.5	9.0
Goat or Sheep Milk	Raw, boiled, pasteurized, flavoured and sterlized	Andaman & Nicobar Islands Andhra Pradesh Arunachal Pradesh Assam Bihar Chhatisgarh Dadra and Nagar haveli Delhi Goa, Daman & Diu Gujarat Himachal Pradesh Jammu & Kashmir Jharkhand Karnataka Lakshadweep, Minicoy & Amindive Islands Manipur Meghalaya' Mizoram Nagaland Orissa Puducherry Rajasthan Sikkim, Tamil Nadu Tripura West Bengal	3.0	9.0
Mixed Milk	Raw, pasteurised, boiled, flavoured and sterilised	All India	4.5	8.5
Standardized milk	Pasteurised, flavoured and sterilized	All India	4.5	8.5
Recombined Milk	Pasteurised, flavoured and sterilized	All India	3.0	8.5

(1)	(2)	(3)	(4)	(5)
Toned Milk	Pasteurised, flavoured and sterilized	All India	3.0	8.5
Double Toned milk	Pasteurised, flavoured and sterilized	All India	1.5	9.0
Skimmed Milk	Raw, boiled, pasteurised, flavoured and sterilized	All India	Not more than 0.5 percent	8.7
Full Cream Milk	Pasteurised and sterilized	All India	6.0	9.0

NOTE :- (i) When milk is offered for sale without indication of the class, the standards prescribed for buffalo milk shall apply.

(ii) The heat treatment for the various designated milk shall be as follows:

Designation	Heat treatment
Raw	Nil.
Pasteurised	Pasteurisation.
Boiled	Boiling
Flavoured	Pasteurisation or Sterilisation
Sterilised	Sterilisation

**Cream:**

1. Cream including sterilised cream means the product of cow or buffalo milk or a combination thereof. It shall be free from starch and other ingredients foreign to milk. It may be of following three categories, namely:—

1. Low fat cream—containing milk fat not less than 25.0 percent by weight.
2. Medium fat cream—containing milk fat not less than 40.0 percent by weight.
3. High fat cream—containing milk fat not less than 60.0 percent by weight.

Note:- Cream sold without any indication about milk fat content shall be treated as high fat cream.

2. Cream Powder means the product obtained by partial removal of water from cream obtained from milk of cow and / or buffalo. The fat and / or protein content of the cream may be adjusted by addition and/ or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It shall be of uniform colour and shall have pleasant taste and flavour free from off flavour and rancidity. It shall also be free from vegetable oil/ fat, mineral oil, added flavour and any substance foreign to milk.

The product may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- |  |                            |
|--|----------------------------|
| (i) Moisture                             | Not more than 5.0 percent  |
| (ii) Milk fat                            | Not less than 42.0 percent |
| (iii) Milk protein in Milk solid not fat | Not less than 34.0 percent |

**:MALAI**

1. Malai means the product rich in butter fat prepared by boiling and cooling cow or buffalo milk or a combination thereof. It shall contain not less than 25.0 per cent milk fat.

**:DAHIORCURD**

1. Dahi or curd means the product obtained from pasteurised or boiled milk by souring, natural or otherwise, by a harmless lactic acid culture or other harmless bacterial culture may also be used in conjunction with lactic acid bacteria cultures for souring. Dahi may contain added cane sugar. Dahi shall have the same minimum percentage of milk fat and milk solids-not-fat as the milk from which it is prepared.

Where dahi or curd is sold or offered for sale without any indication of class of milk, the standards prescribed for dahi prepared from buffalo milk shall apply.

Milk solids may also be used in preparation of this product.

**:CHHANAOR PANEER**

1. Chhana or paneer means the product obtained from the cow or buffalo milk or a combination thereof by precipitation with sour milk, lactic acid or citric acid. It shall not contain more than 70.0 per cent moisture and the milk fat content shall not be less than 50.0 per cent of the dry matter.

Milk solids may also be used in preparation of this product.

Provided that paneer or chhana when sold as low fat paneer or chhana, it shall conform to the following requirements:—

- |               |   |
|---------------|---|
| (i) Moisture  | Not more than 70.0 percent                |
| (ii) Milk fat | Not more than 15.0 percent of dry matter: |

Provided further that such low fat paneer/chhana shall be sold in sealed package only and shall bear proper label declaration as provided in regulation 2.4.5 (39) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

**:CHEESE**

1. Cheese means the ripened or unripened soft or semihard, hard and extra hard product, which may be coated with food grade waxes or polyfilm, and in which the whey protein / casein ratio does not exceed that of milk. Cheese is obtained by coagulating wholly or partly milk and/ or products obtained from milk through the action of non- animal rennet or other suitable coagulating agents and by partially draining the whey resulting from such coagulation and/ or processing techniques involving coagulation of milk and/ or products obtained from milk which give a final product with similar physical, chemical and organoleptic characteristics. The product may contain starter cultures of harmless lactic acid and / or flavour producing bacteria and cultures of other harmless microorganisms, safe and suitable enzymes and sodium chloride. It may be in the form of blocks, slices, cut, shredded or grated cheese.

(i) Ripened Cheese is cheese which is not ready for consumption shortly after manufacture but which must be held for some time at such temperature and under such other conditions as will result in necessary biochemical and physical changes characterizing the cheese in question.

(ii) Mould Ripened cheese is a ripened cheese in which the ripening has been accomplished primarily by the development of characteristic mould growth through the interior and/ or on the surface of the cheese.

(iii) Unripened cheese including fresh cheese is cheese which is ready for consumption shortly after manufacture.

Cheese or varieties of cheeses shall have pleasant taste and flavour free from off flavour and rancidity.

It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B:

Provided that cheese or varieties of cheeses coated with food grade waxes/ or polyfilm / or wrapping of cloth shall bear proper label declaration as provided in regulation 2.4.5 (44) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. It shall conform to the following requirements:—

Product	Moisture	Milk Fat on Dry basis
(1)	(2)	(3)
(i) Hard Pressed Cheese	Not more than 39.0 percent	Not less than 48.0
(ii) Semi Hard Cheese	Not more than 45.0 percent	Not less than 40.0 percent
(iii) Semi Soft Cheese	Not more than 52.0 percent	Not less than 45.0 percent
(iv) Soft Cheese	Not more than 80.0 percent	Not less than 20.0 percent
(v) Extra Hard Cheese	Not more than 36.0 percent	Not less than 32.0 percent
(vi) Mozzarella Cheese	Not more than 60.0 percent	Not less than 35.0 percent
(vii) Pizza Cheese	Not more than 54.0 percent	Not less than 35.0 percent

2. “ Processed Cheese” means the product obtained by grinding, mixing, melting and emulsifying one or more varieties of cheeses with the aid of heat and emulsifying agents. It may contain cream, butter, butter oil and other milk products subject to maximum 5.0 percent lactose content in the final product and edible common salt, vinegar/ acetic acid, spices and other vegetable seasoning and foods other than sugars properly cooked or prepared for flavouring and characterization of the product provided these additions do not exceed one sixth of the weight of the total solids of the final product on dry matter basis and cultures of harmless bacteria and enzymes. It shall have pleasant taste and smell free from off flavour and rancidity. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- |                            |   |                             |
|----------------------------|---|-----------------------------|
| (i) Moisture               | - | Not more than 47.0 percent  |
| (ii) Milk fat on dry basis | - | Not less than 40.0 percent. |

Provided that processed cheese chiplets (packed sliced cheese) when sold in a package other than tin, shall not contain more than 50.0 percent moisture.

3. “ Processed Cheese Spread means the product obtained by grinding, mixing, melting and emulsifying one or more varieties of cheese with emulsifying agents with the aid of heat. It may contain Cream, Butter oil and other dairy products, subject to a maximum limit of 5.0 percent lactose in the final product, salt, vinegar, spices, condiments and seasonings, natural carbohydrate sweetening agents namely sucrose, dextrose, corn syrup, corn syrup solids, honey, maltose, malt syrup and hydrolysed lactose and food properly cooked or otherwise prepared for flavouring and characterization of the product provided these additions do not exceed one sixth of the weight of total solids of the final product on dry weight basis and cultures of harmless bacteria and enzymes. It shall have pleasant taste and flavour free from off flavour and rancidity. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- |                            |   |                             |
|----------------------------|---|-----------------------------|
| (i) Moisture               | - | Not more than 60.0 percent  |
| (ii) Milk fat on dry basis | - | Not less than 40.0 percent. |

4. Cheddar Cheese means ripened hard cheese obtained by coagulating heated/pasteurised milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall be in the form of hard pressed block with a coating of food grade waxes or wrapping of cloth or polyfilm. It shall have firm, smooth and waxy texture with a pale straw to orange colour without any gas holes. It may contain food additives permitted in these Regulations and Appendices including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- |                            |   |                            |
|----------------------------|---|----------------------------|
| (i) Moisture               | - | Not more than 39.0 percent |
| (ii) Milk Fat on Dry Basis | - | Not less than 48.0 percent |

5. Danbo Cheese means ripened semi hard cheese obtained by coagulating heated /pasteurised milk of cow and/ or Buffalo and mixtures thereof with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall be smooth in appearance with firm texture and uniform yellow colour and may be coated with food grade waxes or wrapping of cloth or polyfilm. It may contain food additives permitted in these Regulations including Appendix A. It shall conform to the microbiological requirements prescribed in. Appendix B. It shall conform to the following requirements:—

- |                            |   |                             |
|----------------------------|---|-----------------------------|
| (i) Moisture               | - | Not more than 39.0 percent. |
| (ii) Milk Fat on Dry Basis | - | Not less than 45.0 percent  |

6. Edam Cheese means the ripened semi hard cheese obtained by coagulating heated / pasteurised milk of Cow and / or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria non-animal rennet or other suitable coagulating enzymes. It shall have a firm texture suitable for cutting with a yellowish colour and a hard rind which may be coated with food grade waxes, wrapping of cloth, polyfilm or vegetable oil. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- |                            |   |                             |
|----------------------------|---|-----------------------------|
| (i) Moisture               | - | Not more than 46.0 percent. |
| (ii) Milk Fat on Dry basis | - | Not less than 40.0 percent. |



7. Gouda Cheese means ripened semi hard cheese obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria non-animal / rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting, straw to yellowish colour and a hard rind which may be coated with food grade waxes, wrapping of cloth, or vegetable oil. It may contain food additives permitted in these Regulations including Appendix "A". It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 43.0 percent  
(ii) Milk Fat on Dry Basis Not less than 48.0 percent.

8. Havarti Cheese means ripened semi hard cheese obtained by coagulating milk of cow and / or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting, a light yellow colour and may have a semi soft slightly greasy rind. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Requirements	Havarti	30 percent Havarti	60 percent Havarti
(1)	(2)	(3)	(4)
Moisture	Not more than 48.0 percent	Not more than 53.0 percent	Not more than 60.0 percent
Milk Fat on Dry basis	Not less than 45.0 percent	Not less than 30.0 percent	Not less than 60.0 percent.

9. Tilsiter means ripened semi hard cheese obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria and cultures of Bacterium linens, non-animal rennet or other suitable coagulating enzymes. It shall have firm texture suitable for cutting with a ivory to yellow colour with a firm rind which may show red and yellow smear producing bacteria or coated with food grade waxes or wrapping of cloth or polyfilm after removal of the smear. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Requirement	Tilsiter	30 percent Tilsiter	60 percent Tilsiter
(1)	(2)	(3)	(4)
Moisture	Not more than 47.0 percent	Not more than 53.0 percent	Not more than 39.0 percent
Milk fat on Dry Basis	Not less than 45.0 percent	Not less than 30.0 percent	Not less than 60.0 percent

10. Cottage Cheese and Creamed Cottage Cheese means soft unripened cheese obtained by coagulation of pasteurised skimmed milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid bacteria with or without the addition of other suitable coagulating enzymes. Creamed Cottage Cheese is cottage cheese to which a pasteurised creaming mixture of cream, skimmed milk, condensed milk, non fat dry milk, dry milk protein, Sodium/ Potassium/ Calcium/ Ammonium caseinate is added. It shall have a soft texture with a natural white colour. It may contain spices, condiments, seasonings and fruits pulp. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 80.0 percent  
(ii) Milk Fat (in Creamed Cottage Cheese) Not less than 4.0 percent

11. Cream Cheese (Rahmfrischkase) means soft unripened cheese obtained by coagulation of pasteurised milk of cow and / or buffalo or mixtures thereof and pasteurised cream with cultures of harmless lactic acid producing bacteria with or without the addition of suitable coagulating enzymes. It shall have a soft smooth texture with a white to light cream colour. It may contain spices, condiments, seasonings and fruits pulp. The product may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 55.0 percent.  
(ii) Milk Fat on Dry Basis Not less than 70.0 percent.

12. Coulommiers Cheese means soft unripened cheese obtained by coagulation of milk of cow and /or buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria and non-animal rennet or other suitable coagulating enzymes and moulds characteristic of the variety. It shall have soft texture and white to cream yellow colour and may show presence of white mould including orange or red spots on the surface. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 56.0 percent  
(ii) Milk Fat on Dry Basis Not less than 46.0 percent

13. Camembert Cheese means ripened soft cheese obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria and cultures of *Penicillium caseicolum* and *Bacterium linens* non-animal rennet or other suitable coagulating enzymes. It may be in the form of flat cylindrical shaped cheese covered with white mould (*Penicillium caseicolum*) with occasional orange coloured spots (*Bacterium linens*). It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Requirements	30.0 percent Camembert	40.0 percent Camembert	45.0 percent Camembert	50.0 percent cheese
(1)	(2)	(3)	(4)	(5)
Moisture	Not more than 62.0 percent	Not more than 56.0 percent	Not more than 56.0 percent	Not more than 56.0 percent
Milk fat on Dry Basis	Not more than 30.0 percent	Not more than 40.0 percent	Not more than 45.0 percent	Not more than 50.0 percent

14. Brie Cheese means soft ripened cheese obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria and cultures of *Penicillium caseicolum* and *Bacterium linens*, non-animal rennet and other suitable enzymes. It shall be white to creamy yellow in colour with a smooth texture showing presence of white mould (*Penicillium caseicolum*) with occasional orange coloured spots (*Bacterium linens*) on the rind. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B.

It shall conform to the following requirements:—

- (i) Moisture Not more than 56.0 percent  
(ii) Milk Fat on Dry basis Not less than 40.0 percent

15. Saint Paulin - means ripened semi hard cheese obtained by coagulating milk of Cow and / or Buffalo or mixtures thereof with non-animal rennet, cultures of harmless lactic acid producing bacteria or other suitable enzymes. It shall have white to yellow colour with a firm and flexible texture and a hard rind which may be coated with food grade waxes or polyfilm. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 56.0 percent  
(ii) Milk Fat on Dry Basis Not less than 40.0 percent

16. Samsøe means hard ripened cheese obtained by coagulating milk of Cow and /or Buffalo or combination there of with non-animal rennet and cultures of harmless lactic acid producing bacteria or suitable coagulating enzymes. It shall be yellow in colour with a firm texture suitable for cutting and may have a rind with or without food grade waxes or polyfilm coating. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Requirements	Samsøe	30 percent Samsøe
(1)	(2)	(3)
(i) Moisture	Not more than 44.0 percent	Not more than 50.0 percent
(ii) Milk Fat on Dry Basis	Not less than 45.0 percent	Not less than 30.0 percent

17. Emmentaler means hard ripened cheese with round holes obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with non-animal rennet, cultures of harmless lactic acid producing bacteria or other suitable coagulating enzymes. It may contain Cupric Sulphate not exceeding 15 mgm/Kg expressed as Copper. It shall have a light Yellow colour and a firm texture suitable for cutting and may have a hard rind. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B.

It shall conform to the following requirements:—

- (i) Moisture Not more than 40.0 percent.  
(ii) Milk Fat on Dry Basis Not less than 45.0 percent

18. Provolone means pasta filata cheese obtained by coagulating milk of Cow and/ or Buffalo or mixtures thereof with cultures of harmless lactic acid producing bacteria, non-animal rennet or other suitable coagulating enzymes. It may be smoked. It shall be white to yellow straw in colour with a fibrous or smooth body and rind which may be covered with vegetable fat/ oil, food grade waxes or polyfilm. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture —  
(a) Unsmoked Cheese Not more than 47.0 percent  
(b) Smoked Cheese Not more than 45.0 percent  
(ii) Milk Fat on Dry Basis Not less than 45.0 percent

19. Extra Hard Grating Cheese means ripened cheese obtained by coagulating milk of Cow and/ or Buffalo, goat/ sheep milk or mixtures thereof with cultures of harmless lactic acid producing bacteria, non-animal rennet, or other suitable coagulating enzymes. It may be white to light cream in colour with a slightly brittle texture and an extra hard rind which may be coated with vegetable oil, food grade waxes or polyfilm. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

- (i) Moisture Not more than 36.0 percent  
(ii) Milk Fat on Dry Basis Not less than 32.0 percent

#### : DAIRY BASED DESSERTS/ CONFECTIONS

1. Ice Cream, Kulfi, Chocolate Ice Cream or Softy Ice Cream (hereafter referred to as the said product) means the product obtained by freezing a pasteurized mix prepared from milk and /or other products derived from milk with or without the addition of nutritive sweetening agents, fruit and fruit products, eggs and egg products, coffee, cocoa, chocolate, condiments, spices, ginger and nuts and it may also contain bakery products such as cake or cookies as a separate layer and/or coating. The said product may be frozen hard or frozen to a soft consistency; the said product shall have pleasant taste and smell free from off flavour and rancidity; the said product may contain food additives permitted in these regulation including Appendix A; the said product shall conform to the microbiological requirements specified in Appendix B; the said product shall conform to the following requirements, namely:—

Requirement	Ice Cream	Medium Fat Ice Cream	Low Fat Ice Cream
(1)	(2)	(3)	(4)
Total Solid	Not less than 36.0 percent	Not less than 30.0 percent	Not less than 26.0 percent
Wt/Vol (gms/l)	Not less than 525	Not less than 475	Not less than 475
Milk Fat	Not less than 10.0 percent	More than 2.5 percent but less than 10.0 percent	Not more than 2.5 percent
Milk Protein (Nx6.38)	Not less than 3.5 percent	Not less than 3.5 percent	Not less than 3.0 percent

Note: In case where Chocolate, Cake or similar food coating, base or layer forms a separate part of the product only the Ice Cream portion shall conform to the requirements given above. The type of ice-cream shall be clearly indicated on the label otherwise standard for ice-cream shall apply.

2. Dried Ice Cream Mix/ Dried Frozen Dessert/ Confection(hereafter referred to as the said product) means the product in a powder form which on addition of prescribed amount of water shall give a product conforming to the requirements of the respective products, namely - ice cream, medium fat ice-cream, low fat ice-cream as prescribed under regulation 2.1.7 (1) and frozen confection, medium fat frozen confection and low fat frozen confection as prescribed under regulation 2.1.7 (3) of these regulations except the requirement of weight /volume for both the products. The moisture content of the product shall not be more than 4.0 percent. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B.

3. Frozen Dessert / Frozen Confection(hereafter referred to as the said product) means the product obtained by freezing a pasteurised mix prepared with milk fat and / or edible vegetable oils and fat having a melting point of not more than 37.0 degree C in combination and milk protein alone or in combination / or vegetable protein products singly or in combination with the addition of nutritive sweetening agents e.g. sugar, dextrose, fructose, liquid glucose, dried liquid glucose, maltodextrin, high maltose corn syrup, honey, fruit and fruit products, eggs and egg products coffee, cocoa, chocolate, condiments, spices, ginger, and nuts. The said product may also contain bakery products such as cake or cookies as a separate layer/or coating, it may be frozen hard or frozen to a soft consistency. It shall have pleasant taste and flavour free from off flavour and rancidity and may contain food additives permitted in Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Requirement	Frozen Dessert/ Frozen Confection	Medium Fat Frozen Dessert/ Frozen Confection	Low Fat Frozen Dessert/ Frozen Confection
(1)	(2)	(3)	(4)
Total Solid Wt/Vol (gms/l)	Not less than 36.0 percent	Not less than 30.0 percent	Not less than 26.0 percent
Total Fat	Not less than 525	Not less than 475	Not less than 475
Total Protein (N x 6.25)	Not less than 10.0 percent	more than 2.5 percent but less than 10.0 percent	Not more than 2.5 percent
	Not less than 3.5 percent	Not less than 3.5 percent	Not less than 3.0 percent

Note: In case where Chocolate, Cake or similar food coating, base or layer forms a separate part of the product only the frozen dessert/ confection portion shall conform to the requirements given above. The type of frozen confection shall be clearly indicated on the label otherwise, standards of frozen dessert / frozen confection shall apply and every package of Frozen Dessert / Frozen Confection shall bear proper label declaration under regulation 2.4.5 (41) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011 .

4. Milk Ice or Milk Lolly (hereafter referred to as the said product) means the product obtained by freezing a pasteurized mix prepared from milk and/or other products derived from milk with or without the addition of nutritive sweetening agents, fruit and fruit products, eggs and egg products, coffee, cocoa, chocolate, condiments, spices, ginger and nuts; the said product may also contain bakery products such as cake or cookies as a separate layer and/ or coating; the said product shall have pleasant taste and smell free from off flavour and rancidity. It may contain food additives permitted in Appendix A; the said product shall conform to the microbiological requirements prescribed in Appendix B; the said product shall also conform to the following requirements, namely :—

- |                           |                            |
|---------------------------|----------------------------|
| (1) Total solids (m/m)    | Not less than 20.0 percent |
| (2) Milk Fat (m/m)        | Not more than 2.0 percent  |
| (3) Milk Protein (Nx6.38) | Not less than 3.5 percent  |

5. Khoya by whatever variety of names it is sold such as Pindi, Danedar, Dhap, Mawa or Kava means the product obtained from cow or buffalo or goat or sheep milk or milk solids or a combination thereof by rapid drying. The milk fat content shall not be less than 30 percent on dry weight basis of finished product. It may contain citric acid not more than 0.1 per cent by weight. It shall be free from added starch, added sugar and added colouring matter.

## : EVAPORATED/CONDENSED MILK &amp; MILK PRODUCTS

1. Evaporated Milk means the product obtained by partial removal of water from milk of cow and/ or buffalo by heat or any other process which leads to a product of the same composition and characteristics. The fat and protein content of the milk may be adjusted by addition and/ or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It shall have pleasant taste and flavour free from off flavour and rancidity. It shall be free from any substance foreign to milk. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix

B. It shall conform to the following requirements:—

Product	Milk Fat	Milk Solids	Milk Protein in milk solids not fat
(1)	(2)	(3)	(4)
(i) Evaporated milk	Not less than 8.0 percent m/m	Not less than 26.0 percent m/m	Not less than 34.0 percent m/m
(ii) Evaporated partly skimmed milk	Not less than 1.0 percent and not more than 8.0 percent m/m	Not less than 20.0 percent m/m	Not less than 34.0 percent m/m
(iii) Evaporated skimmed milk	Not more than 1.0 percent m/m	Not less than 20.0 percent m/m	Not less than 34.0 percent m/m
(iv) Evaporated high fat milk	Not less than 15.0 percent m/m	Not less than 27.0 percent m/m	Not less than 34.0 percent m/m

2. Sweetened Condensed Milk means the product obtained by partial removal of water from milk of Cow and/ or Buffalo with the addition of sugar or a combination of sucrose with other sugars or by any other process which leads to a product of the same composition and characteristics. The fat and/ or protein content of the milk may be adjusted by addition and / or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It shall have pleasant taste and flavour free from off flavour and rancidity. It shall be free from any substance foreign to milk. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Product	Milk Fat	Milk Solids	Milk Protein in milk solids not fat
(i) Sweetened condensed milk	Not less than 9.0 percent m/m	Not less than 31.0 percent m/m	Not less than 34.0 percent m/m
(ii) Sweetened condensed skimmed milk	Not more than 1.0 percent m/m	Not less than 26.0 percent m/m	Not less than 34.0 percent m/m
(iii) Sweetened condensed partly skimmed milk	Not less than 3.0 percent m/m and not more than 9.0 percent m/m	Not less than 28.0 percent m/m	Not less than 34.0 percent m/m
(iv) Sweetened condensed high fat milk	Not less than 16.0 percent m/m	Not less than 30.0 percent m/m	Not less than 34.0 percent m/m

3. Milk Powder - means the product obtained by partial removal of water from milk of Cow and / or Buffalo. The fat and / or protein content of the milk may be adjusted by addition and/ or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted. It shall be of uniform colour and shall have pleasant taste and flavour free from off flavour and rancidity. It shall also be free from vegetable oil/ fat, mineral oil, thickening agents, added flavour and sweetening agent. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

Product	Moisture	Milk Fat	Milk protein in milk solids not fat	Titration acidity (ml 0.1N NAOH / 10 gm solids not fat)	Insolubility index	Total ash on dry weight basis
(i) Whole milk powder	Not more than 4.0 percent m/m	Not less than 26.0 percent m/m	Not less than 34.0 percent m/m	Not more than 18.0	Not more than 2 ml	Not more than 7.3 percent
(ii) Partly skimmed milk powder	Not more than 5.0 percent	Not less than 1.5 percent m/m and not more than 26.0 percent m/m	Not less than 34.0 percent m/m	Not more than 18.0	Not more than 2 ml	Not more than 8.2 percent
(iii) Skimmed milk powder	Not more than 5.0 percent	not more than 1.5 percent m/m	Not less than 34.0 percent m/m	Not more than 18.0	Not more than 2 ml	Not more than 8.2 percent

#### : FOODS FOR INFANT NUTRITION

1. Infant Milk Food means the product prepared by spray drying of the milk of cow or buffalo or a mixture thereof. The milk may be modified by the partial removal/substitution of different milk solids; carbohydrates, such as sucrose, dextrose and dextrans/maltodextrin, maltose and lactose; salts like phosphates and citrates; vitamins A, D, E, B Group, Vitamin C and other vitamins; and minerals like iron, copper, zinc and iodine. The source of Mineral Salts and Vitamin Compounds may be used from:—

1. Calcium (Ca) - Calcium carbonate, Calcium chloride, Calcium citrate, Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic;
2. Phosphorous (P) - Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic, Magnesium phosphate dibasic, Potassium phosphate dibasic;
3. Chloride (Cl) - Calcium chloride, Choline chloride, Magnesium chloride, Manganese chloride, Sodium chloride, Sodium chloride iodized;
4. Iron (Fe) - Ferrous citrate, Ferrous lactate, Ferrous sulphate, Ferric pyrophosphate;
5. Magnesium (Mg) - Magnesium chloride, Magnesium oxide, Magnesium phosphate dibasic;
6. Sodium (Na) - Sodium bicarbonate, Sodium chloride, Sodium chloride iodized, Sodium citrate, Sodium phosphate monobasic;
7. Potassium (K) - Potassium phosphate dibasic;
8. Copper (Cu) - Cupric citrate, Cupric sulphate;
9. Iodine (I) - Potassium iodide, Sodium iodide;
10. Zinc (Zn) - Zinc sulphate;
11. Manganese (Mn) - Manganese chloride, Manganese sulphate;
12. Vitamin A - Retinyl acetate, Retinyl palmitate, Retinyl propionate;
13. Provitamin A - Beta-carotene;
14. Vitamin D - Vitamin D2 - Ergocalciferol, Vitamin D3 - Cholecalciferol, Cholecalciferol-cholesterol;
15. Vitamin E - d-alpha-tocopherol, dl-alpha-tocopherol, d-alpha-tocopheryl acetate, dl-alpha-tocopheryl acetate, d-alpha-tocopheryl succinate, dl-alpha-tocopheryl succinate;
16. Thiamine (Vitamin B1) - Thiamine chloride hydrochloride, Thiamine mononitrate;
17. Riboflavin (Vitamin B2) - Riboflavin, Riboflavin 5'-phosphate sodium;
18. Niacin - Nicotinamide, Nicotinic acid;
19. Vitamin B6 - Pyridoxine hydrochloride;
20. Biotin (Vitamin H) - d-biotin;
21. Folic acid - Folic acid;
22. Pantothenic acid - Calcium pantothenate, Panthenol;
23. Vitamin B12 - Cyanocobalamin, Hydroxycobalamin;

24. Vitamin K - Phytolmenaquinone;
25. Vitamin C - Ascorbic acid, Sodium ascorbate, Calcium ascorbate, Ascorbyl-6-palmitate;
26. Choline - Choline bitartrate, Choline chloride;
27. Inositol;
28. Selenium - Sodium selenite.

The product shall be free of lumps and shall be uniform in appearance. It shall be free from starch and added antioxidants. It shall also be free from dirt, extraneous matter, preservatives and added colour and flavour and from any material which is harmful to human health. It shall not have rancid taste or musty odour. It shall not contain food additives.

It shall conform to the following requirements, namely:—

1. Moisture, per cent by weight (not more than)	4.5
2. Total milk protein, per cent by weight (not less than)	12.0
3. Milk fat, per cent by weight (not less than)	18.0
4. Total ash, per cent by weight (not more than)	8.5
5. Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than)	0.1
6. Solubility:	
Solubility Index maximum	2.0 ml
Solubility per cent by weight (not less than)	98.5
7. Vitamin A (as retinol) µg. per 100 g. (not less than)	350 µg
8. Added Vitamin D (expressed as Cholecalciferol or Ergocalciferol) µg per 100g. (not less than)	4.5 µg
9. Vitamin C, mg per 100 g. (not less than)	35 µg
10. Thiamine, µg per 100 g. (not less than)	185 µg
11. Riboflavin, µg per 100 g. (not less than)	275 µg
12. Niacin, µg per 100 g. (not less than)	1160 µg
13. Pyridoxine µg per 100 g. (not less than)	160 µg
14. Folic acid, µg per 100 g. (not less than)	20 µg
15. Pantothenic acid, mg per 100 g. (not less than)	1.4 mg
16. Vitamin B12, µg per 100 g. (not less than)	0.7 µg
17. Choline, mg per 100 g. (not less than)	32 mg
18. Vitamin K µg per 100 g. (not less than)	18 µg
19. Biotin, µg per 100 g. (not less than)	7.0 µg
20. Sodium mg per 100 g. (not less than)	90 mg
21. Potassium, mg per 100 g. (not less than)	370 mg
22. Chloride, mg per 100 g. (not less than)	250 mg
23. Calcium, mg per 100 g. (not less than)	230 mg
24. Phosphorous, mg per 100 g. (not less than)	115 mg
25. Magnesium, mg per 100 g. (not less than)	22 mg
26. Iron, mg per 100 g. (not less than)	5.0 mg
27. Iodine, µg per 100 g. (not less than)	20 µg
28. Copper, µg per 100 g. (not less than)	280 µg
29. Zinc, mg per 100 g. (not less than) and not more than	2.5 mg 5.0 mg
30. Manganese, µg per 100g. (not less than)	20 µg
31. Selenium, µg per 100 g. (not less than)	14 µg
32. Bacterial count, per g. (not more than)	10,000
33. Coliform count absent in	0.1 gram
34. Yeast and mould count absent in	0.1 gram
35. Salmonella and Shigella absent in	25 gram
36. E. coli absent in	0.1 gram
37. Staphylococcus aureas absent in	0.1 gram

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallised film or in such a way to protect from deterioration.

It may be packed in nitrogen or a mixture of nitrogen and carbon dioxide.

2. Infant formula means the product prepared by spray drying of the milk of cow or buffalo or mixture thereof. The milk may be modified by partial removal/substitution of milk fat with vegetable oils rich in polyunsaturated fatty acids and/or by different milk solids; carbohydrates such as sucrose, dextrose and dextrans/ maltodextrin, maltose and lactose; salts such as phosphates and citrates; vitamins A, D, E, B and C group and other vitamins; minerals such as iron, copper, zinc and iodine and others. Vegetable oils rich in polyunsaturated fatty acids shall be added to partially substitute milk fat to an extent that the product shall contain a minimum of 12 per cent by weight of milk fat and a minimum of linoleate content of 1.398 g per 100 g. of the product.

The products shall also contain a minimum of 0.70 I.U. of vitamin E per 100 kcal. It may contain in addition to the vitamins and minerals listed, other nutrients may be added when required in order to provide nutrients ordinarily found in human milk such as,—

1. Carotenes	Not less than 0.25 mg/L
2. Fluorine	Not less than 0.107 mg/L
3. Amino acids	Not less than 9 mg/L (only L forms of amino acids should be used)
4. Non-protein nitrogen	Not less than 173 mg/L
5. Nucleotides	Not less than 11.7 mg/L
6. Carnitine	Not less than 11.27 µg/L
7. Lactalbumin	Not less than 1.4 g/L
8. Lactoferrin	Not less than 0.27 g/L
9. Lysozyme	Not less than 0.8 g/L
10. Fucose	Not less than 1.3 g/L
11. Glucosamine	Not less than 0.7 g/L
12. Inositol	Not less than 0.39 g/L
13. Citric acid	Not less than 0.35 g/L
14. Cholesterol	Not less than 88 mg/L
15. Lipid Phosphorus	Not less than 7 mg/L
16. Prostaglandins	Not less than PGE 150 mg/L Not

less than PGF 400 mg/L

When any of these nutrients is added, the amount of these added nutrients shall be declared on the label, which should be not less than mentioned. It may contain medium chain triglycerides, taurine, molybdenum and chromium.

The source of Mineral Salts and Vitamin Compounds may be used from:—

- (1) Calcium (Ca) - Calcium carbonate, Calcium chloride, Calcium citrate, Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic;
- (2) Phosphorous (P) - Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic, Magnesium phosphate dibasic, Potassium phosphate dibasic;



- (3) Chloride (Cl) - Calcium chloride, Choline chloride, Magnesium chloride, Manganese chloride, Sodium chloride, Sodium chloride iodized;
- (4) Iron (Fe) - Ferrous citrate, Ferrous lactate, Ferrous sulphate, Ferric pyrophosphate;
- (5) Magnesium (Mg) - Magnesium chloride, Magnesium oxide, Magnesium phosphate dibasic;
- (6) Sodium (Na) - Sodium bicarbonate, Sodium chloride, Sodium chloride iodized, Sodium citrate, Sodium phosphate monobasic;
- (7) Potassium (K) - Potassium phosphate dibasic;
- (8) Copper (Cu) - Cupric citrate, Cupric sulphate;
- (9) Iodine (I) - Potassium iodide, Sodium iodide;
- (10) Zinc (Zn) - Zinc sulphate;
- (11) Source of Manganese (Mn) - Manganese chloride, Manganese sulphate.

#### Vitamins

1. Vitamin A - Retinyl acetate, Retinyl palmitate, Retinyl propionate;
2. Provitamin A - Beta-carotene;
3. Vitamin D - Vitamin D<sub>2</sub> - Ergocalciferol, Vitamin D<sub>3</sub> - Cholecalciferol, Cholecalciferol-cholesterol;
4. Vitamin E - d-alpha-tocopherol, dl-alpha-tocopherol, d-alpha-tocopheryl acetate, dl-alpha-tocopheryl acetate, d-alpha-tocopheryl succinate, dl-alpha-tocopheryl succinate;
5. Thiamine (Vitamin B<sub>1</sub>) - Thiamine chloride hydrochloride, Thiamin mononitrate;
6. Riboflavin (Vitamin B<sub>2</sub>) - Riboflavin, Riboflavin 5'-phosphate sodium;
7. Niacin - Nicotinamide, Nicotinic acid;
8. Vitamin B<sub>6</sub> - Pyridoxine hydrochloride;
9. Biotin (Vitamin H) - d-biotin;
10. Folic acid - Folic acid;
11. Pantothenic acid - Calcium pantothenate, Panthenol;
12. Vitamin B<sub>12</sub> - Cyanocobalamin, Hydroxycobalamin;
13. Vitamin K - Phytolmenaquinone;
14. Vitamin C - Ascorbic acid, Sodium ascorbate, Calcium ascorbate, Ascorbyl-6-palmitate;
15. Choline - Choline bitartrate, Choline chloride;
16. Inositol;
17. Selenium - Sodium selenite.

The product shall be free of lumps and shall be uniform in appearance. It shall be free from added starch, added colour and added flavour. It shall not have rancid taste and musty odour.

It may contain food additive listed below, —

Food Additives	Maximum level in 100 ml of the ready-to-drink product pH
- adjusting agents	
Sodium hydroxide	
Sodium hydrogen carbonate	Limited by good
Sodium carbonate	manufacturing practice and within the limits for Sodium and
Potassium Hydroxide	Potassium in all types of infant formulae
Potassium hydrogen Carbonate	
Potassium Carbonate	
Calcium hydroxide	
Sodium Citrate	
Potassium Citrate	

L (+) Lactic acid producing cultures  
 Limited by good formulae manufacturing practice in all types of infant formulae  
 Citric Acid

---

Antioxidants  
 Mixed tocopherols concentrate and Ascorbyl palmitate 1 mg in all types of infant formulae L-  
 Mono and Diglycerides 0.4 gram

---

It shall conform to the following requirements namely:

1.	Moisture, per cent by weight (not more than)	4.5
2.	Total milk protein, per cent by weight (not less than) and not more than	10.0 16.0
3.	Total fat, percent by weight (not less than)	18.0
	Milk Fat, percent by weight (not less than)	12.0
	Linoleate per 100 gram (not less than)	1.398g
4.	Total ash, per cent by weight (not more than)	8.5
5.	Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than)	0.1
6.	Solubility:	
	(a) Solubility Index maximum	2.0 ml
	(b) Solubility per cent by weight (not less than)	98.5
7.	Vitamin A (as retinol) µg. per 100 g. (not less than)	350 µg
8.	Added Vitamin D (expressed as Cholecalciferol or Ergocalciferol) µg. per 100g. (not less than)	4.5 µg
9.	Vitamin C, mg per 100 g. (not less than)	35 mg
10.	Thiamine, µg per 100 g. (not less than)	185 µg
11.	Riboflavin, µg per 100 g. (not less than)	275 µg
12.	Niacin, µg per 100 g. (not less than)	1160 µg
13.	Pyridoxine µg per 100 g. (not less than)	160 µg
14.	Folic acid, µg per 100 g. (not less than)	20 µg
15.	Pantothenic acid, mg per 100 g. (not less than)	1.4 mg
16.	Vitamin B12, µg per 100 g. (not less than)	0.7 µg
17.	Choline, mg per 100 g. (not less than)	32 mg
18.	Vitamin K µg per 100 g. (not less than)	18 µg
19.	Biotin, µg per 100 g. (not less than)	7.0 µg
20.	Vitamin E (as a-tocopherol compounds) IU per 100g. (not less than)	3.15 IU
21.	Sodium mg per 100 g. (not less than)	90 mg
22.	Potassium, mg per 100 g. (not less than)	370 mg
23.	Chloride, mg per 100 g. (not less than)	250 mg
24.	Calcium, mg per 100 g. (not less than)	230 mg
25.	Phosphorous, mg per 100 g. (not less than)	115 mg
26.	Magnesium, mg per 100 g. (not less than)	22 mg
27.	Iron, mg per 100 g. (not less than)	5.0 mg
28.	Iodine, µg per 100 g. (not less than)	20 µg
29.	Copper, µg per 100 g. (not less than)	280 µg

30.	Zinc, mg per 100 g. (not less than) and not more than	2.5 mg 5.0 mg
31	Manganese, µg per 100g. (not less than)	20 µg
32.	Selenium, µg per 100 g. (not less than)	14 µg
33.	Bacterial count, per g. (not more than)	10,000
34.	Coliform count absent in	0.1 gram
35.	Yeast and mould count absent in	0.1 gram
36.	Salmonella and Shigella absent in	25 gram
37.	E. coli absent in	0.1 gram
38.	Staphylococcus aureas absent in	0.1 gram

Premature/Low birth weight infant milk substitutes—

Provided that the premature/low birth weight infant milk substitutes shall also meet the following requirement in addition to the requirements mentioned above:—

1. Protein shall be 2.25 - 2.75 gram per 100 kcal
2. Mineral contents shall not be less than 0.5 gram per 100 kcal. The Calcium: Phosphorous ratio shall be 2:1. The Sodium, Potassium and Chloride combined together shall be not less than 40 milli equivalent per Litre;
3. Whey: Casein ratio shall be 60:40. Essential amino acids should include taurine, cystine, tyrosine and histidine;

Lactose free infant milk substitute

Lactose and sucrose free infant milk substitute

Sucrose free infant milk substitute

Provided that the lactose free or lactose and sucrose free or sucrose free infant milk substitutes shall also meet the following requirement in addition to the requirements mentioned in the standard, provided that in these three products edible vegetable oil may be used in place of milk fat and lecithin may be used as an emulsifier:—

1. Soy protein-based, lactose-free formula shall have soy-protein and carbohydrate as glucose, dextrose, dextrin/maltodextrin, maltose and/or sucrose;
2. Lactose-free cow's/buffalo's milk-based formulas shall have carbohydrate as glucose, dextrose, dextrin/maltodextrin, maltose and sucrose.

Hypoallergenic infant milk substitutes

Provided that the Hypoallergenic infant milk substitutes shall also meet the following requirement in addition to the requirements mentioned in the standard:—

1. Protein shall be hydrolyzed whey or casein or;
2. 100% free amino acids as a protein source;

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallised film or in such a way to protect from deterioration. It shall be packed in nitrogen or a mixture of nitrogen and carbon dioxide."

3. Milk-cereal based complementary food milk-cereal based complementary food commonly called as weaning food or supplementary food means foods based on milk, cereal and/or legumes (pulses), soyabean, millets, nuts and edible oil seeds, processed to low moisture content and so fragmented as to permit dilution with water, milk or other suitable medium.

Milk-cereal based complementary food is intended to supplement the diet of infants after the age of six months.

Milk cereal based complementary food are obtained from milk, variety of cereals, pulses, soyabean, millets, nuts and edible oil seeds after processing. It may contain edible vegetable oils, milk solid, various carbohydrates such as sucrose, dextrose, dextrans/ maltodextrin, maltose and lactose, calcium salts; phosphates and citrates and

other nutritionally significant minerals and vitamins. It shall contain a minimum of 10 per cent milk protein by weight of the product. It shall also contain minimum 5 per cent milk fat by weight. It shall not contain hydrogenated fats containing trans-fatty acids. It may contain fungal alfa amylase upto a maximum extent of 0.025 percent by weight, fruits and vegetables, egg or egg products. It may also include amino acids such as lysine, methionine, taurine, carnitine etc.

The source of Vitamin Compounds and Mineral Salts may be used from,—

1. Calcium (Ca) - Calcium carbonate, Calcium phosphate tribasic, Calcium sulphate;
2. Phosphorous (P) - Calcium phosphate tribasic;
3. Chloride (Cl) - Sodium chloride;
4. Iron (Fe) - Hydrogen reduced iron, Electrolytic iron;
5. Magnesium (Mg) - Magnesium chloride, Magnesium oxide, Magnesium phosphate dibasic;
6. Sodium (Na) - Sodium chloride;
7. Zinc (Zn) - Zinc sulphate;

#### Vitamins

1. Vitamin A - Retinyl acetate, Retinyl palmitate, Retinyl propionate;
2. Provitamin A - Beta-carotene;
3. Vitamin D - Vitamin D<sub>2</sub> -Ergocalciferol, Vitamin D<sub>3</sub> -Cholecalciferol, Cholecalciferol-cholesterol;
4. Vitamin E - d-alpha-tocopherol, dl-alpha-tocopherol, d-alpha-tocopheryl acetate, dl-alpha-tocopheryl acetate, d-alpha-tocopheryl succinate, dl-alpha-tocopheryl succinate;
5. Thiamine (Vitamin B<sub>1</sub>) - Thiamine chloride hydrochloride, Thiamine mononitrate;
6. Riboflavin (Vitamin B<sub>2</sub>) -Riboflavin, Riboflavin 5' -phosphate sodium;
7. Niacin - Nicotinamide, Nicotinic acid;
8. Vitamin B<sub>6</sub> - Pyridoxine hydrochloride;
9. Biotin (Vitamin H) - d-biotin;
10. Folic acid - Folic acid;
11. Pantothenic acid - Calcium pantothenate, Panthenol;
12. Vitamin B<sub>12</sub> - Cyanocobalamin, Hydroxycobalamin;
13. Vitamin K - Phytylmenaquinone;
14. Vitamin C - Ascorbic acid, Sodium ascorbate, Calcium ascorbate, Ascorbyl-6-palmitate;
15. Choline - Choline bitartrate, Choline chloride;
16. Inositol;
17. Selenium - Sodium selenite.

It shall be in the form of powder, small granules or flakes, free from lumps and shall be uniform in appearance.

It shall be free from dirt and extraneous matter and free from preservatives and added colour and flavour. It shall be free from any material, which is harmful to human health.

It may contain the following additives, —

Emulsifiers	Maximum level in 100 gm of the product on a dry weight basis
Lecithin	1.5 gms
Mono and Diglycerides	1.5 gms PH
- adjusting agents	
Sodium hydrogen carbonate	
Sodium carbonate	

Sodium Citrate	
Potassium hydrogen Carbonate	
Potassium Carbonate	Limited by good manufacturing practice within the limit for
Potassium Citrate	sodium
Sodium Hydroxide	
Calcium Hydroxide	
Potassium Hydroxide L	
(+) Lactic Acid Citric	
Acid	

---

Antioxidants	
Mixed tocopherols concentrate	300 mg /kg fat, singly or in combination
∞- Tocopherol	
L-Ascorbyl Palmitate	200mg /kg fat It

---

shall conform to the following requirements, namely:—

1.	Moisture, per cent by weight (not more than)	5.0
2.	Total protein, per cent by weight (not less than)	15.0
3.	Fat, per cent by weight (not less than)	7.5
4.	Total Carbohydrate, per cent by weight (not less than)	55.0
5.	Total ash, per cent by weight (not more than)	5.0
6.	Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than)	0.1
7.	Crude fibre (on dry basis) per cent by weight (not more than)	1.0
8.	Vitamin A (as retinol) µg per 100 g. (not less than)	350 µg
9.	Added Vitamin D, µg per 100 g. (expressed as Cholecalciferol or Ergocalciferol (not less than)	5 µg
10.	Vitamin C, mg per 100 g. (not less than)	25 mg
11.	Thiamine (as hydrochloride), mg per 100 g. (not less than)	0.5 mg
12.	Riboflavin, mg per 100 g. (not less than)	0.3 mg
13.	Niacin, mg per 100 g. (not less than)	3.0 mg
14.	Folic acid µg per 100 g. (not less than)	20 µg
15.	Iron, mg per 100 g. (not less than)	5.0 mg
16.	Zinc mg per 100 g. (not less than)	2.5 mg
	and not more than	5.0 mg
17.	Bacterial count, per g. (not more than)	10,000
18.	Coliform count absent in	0.1 gram
19.	Yeast and mould count absent in	0.1 gram
20.	Salmonella and Shigella absent in	25 gram
21.	E. coli absent in	0.1 gram
22.	Staphylococcus aureas absent in	0.1 gram

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallised film or in such a way to protect from deterioration.

4. Processed cereal based complementary food commonly called as weaning food or supplementary food means foods based on cereal and/or legumes (pulses), soyabean, millets, nuts and edible oil seeds, processed to low moisture content and so fragmented as to permit dilution with water, milk or other suitable medium.

Processed cereal based complementary food are intended to supplement the diet of infants after the age of six months and up to the age of two years.

Processed cereal based complementary food are obtained from variety of cereals, pulses, soyabean, millets, nuts and edible oil seeds after processing. It shall contain milled cereal and legumes combined not less than 75 percent. Where the product is intended to be mixed with water before consumption, the minimum content of protein shall not be less than 15% on a dry weight basis and the PER shall not be less than 70% of that of casein. The sodium content of the products shall not exceed 100 mg/100 gram of the ready-to-eat product.

Hydrogenated fats containing trans-fatty acids shall not be added to the products. It may also contain following ingredients: - protein concentrates, essential amino acids (only natural L forms of amino acids shall be used), iodized salt; milk and milk products; eggs; edible vegetable oils and fats; fruits and vegetables; various carbohydrates such as sucrose, dextrose, dextrin, maltose dextrin, lactose, honey, corn syrup; malt; potatoes.

The source of Vitamin Compounds and Mineral Salts may be used from,—

1. Calcium (Ca) - Calcium carbonate, Calcium phosphate tribasic, Calcium sulphate;
2. Phosphorous (P) - Calcium phosphate tribasic, Phosphoric acid;
3. Chloride (Cl) - Sodium chloride, Hydrochloric acid;
4. Iron (Fe) - Hydrogen reduced iron, Electrolytic iron;
5. Sodium (Na) - Sodium chloride;
6. Zinc (Zn) - Zinc acetate, Zinc chloride, Zinc oxide, Zinc sulphate;

Vitamins

1. Vitamin A - Retinyl acetate, Retinyl palmitate, Retinyl propionate;
2. Provitamin A - Beta-carotene;
3. Vitamin D - Vitamin D<sub>2</sub> - Ergocalciferol, Vitamin D<sub>3</sub> - Cholecalciferol, Cholecalciferol-cholesterol;
4. Vitamin E - d-alpha-tocopherol, dl-alpha-tocopherol, d-alpha-tocopheryl acetate, dl-alpha-tocopheryl acetate, d-alpha-tocopheryl succinate, dl-alpha-tocopheryl succinate;
5. Thiamine (Vitamin B<sub>1</sub>) - Thiamine chloride hydrochloride, Thiamine mononitrate;
6. Riboflavin (Vitamin B<sub>2</sub>) - Riboflavin, Riboflavin 5' -phosphate sodium;
7. Niacin - Nicotinamide, Nicotinic acid;
8. Vitamin B<sub>6</sub> - Pyridoxine hydrochloride;
9. Biotin (Vitamin H) - d-biotin;
10. Folic acid - Folic acid;
11. Pantothenic acid - Calcium pantothenate, Panthenol;
12. Vitamin B<sub>12</sub> - Cyanocobalamin, Hydroxycobalamin;
13. Vitamin K - Phytolmenaquinone;
14. Vitamin C - Ascorbic acid, Sodium ascorbate, Calcium ascorbate, Ascorbyl-6-palmitate;
15. Choline - Choline bitartrate, Choline chloride;
16. Inositol;
17. Selenium - Sodium selenite.

It shall be in the form of powder, small granules or flakes, free from lumps and shall be uniform in appearance.

All ingredients, including optional ingredients, shall be clean, safe, suitable and of good quality. It shall be free from preservatives, added colour and flavour.

It may contain the following food additives:—

<i>Name of the Food Additives</i>	<i>Maximum Level in a 100 g of Product on a dry weight basis</i>
<b>Emulsifiers</b>	
Lecithin	1.5 gram
Mono and Diglycerides	1.5 gram pH
<b>Adjusting Agents</b>	
Sodium hydrogen carbonate	Limited by good manufacturing practice and within the limits for sodium
Potassium hydrogen carbonate	Limited by good manufacturing practice
Calcium carbonate}	
L(+) lactic acid	1.5 gm
Citric acid	2.5 gm
<b>Antioxidants</b>	
Mixed tocopherols concentrate	
Alpha-tocopherol	300 mg/kg fat, singly or in combination
L-Ascorbyl palmitate	200 mg/kg fat
L-Ascorbic acid and its sodium and potassium salts	50 mg, expressed as ascorbic acid and within limits for sodium
<b>Enzymes</b>	
Malt carbohydrates	Limited by good manufacturing practice
<b>Leavening Agents</b>	
Ammonium carbonate}	
Ammonium hydrogen carbonate }	Limited by good manufacturing practice It

shall also conform to the following requirements namely:—

1. Moisture, per cent by weight (not more than)	4.0
2. Total protein, per cent by weight (not less than)	15.0
3. Total Carbohydrate, per cent by weight (not less than)	55.0
4. Total ash, per cent by weight (not more than)	5.0
5. Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than) 0.1	0.1
6. Crude fibre (on dry basis) per cent by weight (not more than)	1.0
7. Vitamin A (as retinol) µg per 100 g. (not less than)	350 µg
8. Added Vitamin D, µg per 100 g. (expressed as Cholecalciferol or Ergocalciferol (not less than)	5 µg
9. Vitamin C, mg per 100 g. (not less than)	25 mg
10. Thiamine (as hydrochloride), mg per 100 g. (not less than)	0.5 mg
11. Riboflavin, mg per 100 g. (not less than)	0.3 mg
12. Niacin, mg per 100 g. (not less than)	3.0 mg
13. Folic acid µg per 100 g. (not less than)	20.0 µg
14. Iron, mg per 100 g. (not less than)	5.0 mg
15. Zinc mg per 100 g. (not less than)	2.5 mg
and not more than	5.0mg
16. Bacterial count, per g. (not more than)	10,000
17. Coliform count absent in	0.1 gram
18. Yeast and mould count absent in	0.1 gram

- |                                       |          |
|---------------------------------------|----------|
| 19. Salmonella and Shigella absent in | 25 gram  |
| 20. E. coli absent in                 | 0.1 gram |
| 21. Staphylococcus aureas absent in   | 0.1 gram |

It shall be packed in hermetically sealed clean and sound containers or in flexible pack made from film or combination of any or the substrate made of board paper, polyethylene, polyester, metalised film or aluminum foil in such a way to protect from deterioration."

5. Follow-Up Formula-Complementary Food" means the product prepared by spray drying of the milk of cow or buffalos or mixture thereof. It may contain vegetable protein. Follow-up formula based on milk shall be prepared from ingredients mentioned below except that a minimum of 3 gram per 100 available Calories (or 0.7 gram per 100 kilojoules) of protein shall be derived from whole or skimmed milk as such, or with minor modification that does not substantially impair the vitamin or mineral content of the milk and which represents a minimum of 90% of the total protein.

Follow-up formula for use as a liquid part of the complementary diet for infants after the age of six months and up to the age of two years when prepared in accordance with the instructions for use, 100 ml of the ready-for-consumption product shall provide not less than 60 kcal (or 250 kJ) and not more than 85 kcal (or 355 kJ).

Follow-up formula shall contain the following nutrients indicated below,

- (1) Protein - Not less than 3.0 gram per 100 available calories (or 0.7 gram per 100 available kilojoules). Not more than 5.5 g per 100 available calories (or 1.3 g per 100 available kilojoules).

(Protein shall be of nutritional quality equivalent to that of casein or a greater quantity of other protein in inverse proportion to its nutritional quality. The quality of the protein shall not be less than 85% of that of casein).

Essential amino acids may be added to follow-up formula to improve its nutritional value. Only L forms of amino acids shall be used.

- (2) Fat - Not less than 4 g per 100 Calories (0.93 gram per 100 available kilojoules) Not more than 6 gram per 100 calories (1.4 gram per 100 available kilojoules)

Linoleic acid (in the form of glyceride) - Not less than 310mg  
(per 100 Calories or 74.09 mg per 100 available KJ)

The products shall contain nutritionally available carbohydrates suitable for the feeding of the older infant and young child in such quantities as to adjust the product to the energy density in accordance with the requirements given above.

It may also contain other nutrients when required to ensure that the product is suitable to form part of a mixed feeding scheme intended for use after six months of age. When any of these nutrients is added, the food shall contain not less than Recommended Dietary Allowances (RDA) amounts of these nutrients.

The source of Mineral Salts and Vitamin Compounds may be used from, —

1. Calcium (Ca)-Calcium carbonate, Calcium chloride, Calcium citrate, Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic;
2. Phosphorous (P)- Calcium phosphate monobasic, Calcium phosphate dibasic, Calcium phosphate tribasic, Magnesium phosphate dibasic, Potassium phosphate dibasic;
3. Chloride (Cl)-Calcium chloride, Choline chloride, Magnesium chloride, Manganese chloride, Sodium chloride, Sodium chloride iodized;
4. Iron (Fe)- Ferrous citrate Ferrous lactate, Ferrous sulphate, Ferric pyrophosphate;
5. Magnesium (Mg)- Magnesium chloride, Magnesium oxide, Magnesium phosphate dibasic;
6. Sodium (Na)- Sodium bicarbonate, Sodium chloride, Sodium chloride iodized, Sodium citrate, Sodium phosphate monobasic;
7. Potassium (K)- Potassium phosphate dibasic;
8. Copper (Cu)- Cupric citrate, Cupric sulphate;
9. Iodine (I)-Potassium iodide, Sodium iodide;



10. Zinc (Zn)- Zinc sulphate;
11. Source of Manganese (Mn)- Manganese chloride, Manganese sulphate.

#### Vitamins

1. Vitamin A - Retinyl acetate, Retinyl palmitate, Retinyl propionate;
2. Provitamin A - Beta-carotene;
3. Vitamin D - Vitamin D<sub>2</sub> - Ergocalciferol, Vitamin D<sub>3</sub> - Cholecalciferol, Cholecalciferol-cholesterol;
4. Vitamin E - d-alpha-tocopherol, dl-alpha-tocopherol, d-alpha-tocopheryl acetate, dl-alpha-tocopheryl acetate, d-alpha-tocopheryl succinate, dl-alpha-tocopheryl succinate;
5. Thiamine (Vitamin B<sub>1</sub>) - Thiamine chloride hydrochloride, Thiamine mononitrate;
6. Riboflavin (Vitamin B<sub>2</sub>) - Riboflavin, Riboflavin 5' -phosphate sodium;
7. Niacin-Nicotinamide, Nicotinic acid;
8. Vitamin B<sub>6</sub> - Pyridoxine hydrochloride;
9. Biotin (Vitamin H) - d-biotin;
10. Folic acid - Folic acid;
11. Pantothenic acid - Calcium pantothenate, Panthenol;
12. Vitamin B<sub>12</sub> - Cyanocobalamin, Hydroxycobalamin;
13. Vitamin K - Phytylmenaquinone;
14. Vitamin C - Ascorbic acid, Sodium ascorbate, Calcium ascorbate, Ascorbyl-6-palmitate;
15. Choline - Choline bitartrate, Choline chloride;
16. Inositol;
17. Selenium - Sodium selenite.

The product shall be free of lumps and shall be uniform in appearance. It shall be free from added starch and added colour and flavour. It shall not have rancid taste and musty odour.

It may contain the following additives, —

---

*Maximum Level in 100 ml of Product Ready-for-Consumption*

---

#### *pH-Adjusting Agents*

Sodium hydrogen carbonate	
Sodium carbonate	
Sodium citrate	
Potassium hydrogen carbonate	
Potassium carbonate	
Potassium citrate	Limited by good Manufacturing Practice within the limit for sodium
Sodium hydroxide	
Calcium hydroxide	
Potassium hydroxide	
L(+) Lactic acid	
Citric acid	

---

#### *Antioxidants*

---

Mixed tocopherols concentrate	
α - Tocopherol	3 mg singly or in combination
L-Ascorbyl palmitate	5 mg singly or in combination.

---

It shall also conform to the following requirements,—

<i>S. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
1.	Moisture, per cent by weight (not more than)	4.5
2.	Total milk protein, per cent by weight (not less than) and (not more than)	13.5 24.75
3.	Total fat, per cent by weight (not less than) and (not more than)	18.0 27.0
	Linoleate per 100 gm (not less than)	1.398
4.	Total ash, per cent by weight (not more than)	8.5
5.	Ash insoluble in dilute Hydrochloric acid, per cent by weight (not more than)	0.1
6.	Solubility:	
	Solubility Index maximum	2.0 ml.
	Solubility per cent by weight (not less than)	98.5
7.	Vitamin A (as retinol) µg per 100 g. (not less than)	350 µg
8.	Added Vitamin D (expressed as Cholecalciferol or Ergocalciferol) µg per 100 g. (not less than)	4.5 µg
9.	Vitamin C, mg per 100 g. (not less than)	36 mg
10.	Thiamin, mcg per 100 g. (not less than)	180 µg
11.	Riboflavin, µg per 100 g. (not less than)	270 µg
12.	Niacin, µg per 100 g. (not less than)	1125µg
13.	Pyridoxine µg per 100 g. (not less than)	202.50 µg
14.	Folic acid, µg per 100 g. (not less than)	20.0 µg
15.	Pantothenic acid, mg per 100 g. (not less than)	1.35 mg
16.	Vitamin B12, µg per 100 g. (not less than)	0.675µg
17.	Choline, mg per 100 g. (not less than)	32 mg
18.	Vitamin K µg per 100 g. (not less than)	18µg
19.	Biotin, µg per 100 g. (not less than)	6.75µg
20.	Vitamin E (as a- tocopherol compounds) I.U. per 100g (not less than)	3.15 IU
21.	Sodium, mg per 100 g. (not less than)	90 mg
22.	Potassium, mg per 100 g. (not less than)	360 mg
23.	Chloride, mg per 100 g. (not less than)	247.50 mg
24.	Calcium, mg per 100 g. (not less than)	405 mg
25.	Phosphorous, mg per 100 g. (not less than)	270 mg
26.	Magnesium, mg per 100 g. (not less than)	27 mg
27.	Iron, mg per 100 g. (not less than)	5 mg
28.	Iodine, µg per 100 g. (not less than)	22.50µg
29.	Copper, µg per 100 g. (not less than)	280µg
30.	Zinc, mg per 100 g. (not less than) and (not more than)	2.5 mg 5.0 mg
31.	Manganese, µg per 100 g. (not less than)	20µg
32.	Selenium, µg per 100 g. (not less than)	14µg
33.	Bacterial count, per g. (not more than)	10,000
34.	Coliform count absent in	0.1gram
35.	Yeast and mould count absent in	0.1gram
36.	Salmonella and Shigella absent in	25 gram
37.	E. coli absent in	0.1gram
38.	Staphylococcus aureas absent in	0.1gram

It shall be packed in hermetically sealed, clean and sound containers or in flexible pack made from film or combination or any of the substrate made of Board paper, polyethylene, polyester metallised film or in such a way to protect from deterioration. It shall be packed in nitrogen or a mixture of nitrogen and carbon dioxide.

: BUTTER, GHEE & MILK FATS

1. Butter means the fatty product derived exclusively from milk of Cow and/or Buffalo or its products principally in the form of an emulsion of the type water-in-oil. The product may be with or without added common salt and starter cultures of harmless lactic acid and / or flavour producing bacteria. Table butter shall be obtained from pasteurised milk and/ or other milk products which have undergone adequate heat treatment to ensure microbial safety. It shall be free from animal, body fat, vegetable oil and fat, mineral oil and added flavour. It shall have pleasant taste and flavour free from off flavour and rancidity. It may contain food additives permitted in these Regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B.

Provided that where butter is sold or offered for sale without any indication as to whether it is table or desi butter, the standards of table butter shall apply.

It shall conform to the following requirements:

Product	Moisture	Milk Fat	Milk solids not Fat	Commonsalt
Table Butter	Not more than 16.0 percent m/m	Not less than 80.0 percent m/m	Not more than 1.5 percent m/m	Not more than 3.0 percent m/m
Desi Cooking Butter	-	Not less than 76.0 percent m/m	-	—

2. Ghee means the pure clarified fat derived solely from milk or curd or from desi (cooking) butter or from cream to which no colouring matter or preservative has been added. The standards of quality of ghee produced in a State or Union Territory specified in column 2 of the Table below shall be as specified against the said State or Union Territory in the corresponding Columns 3,4,5 and 6 of the said Table.

S. No.	Name of the State/ Union Territory	Butyro Refractometer reading at 40 <sup>0</sup> C	Minimum Reichert Value	Percentage of	
				FFA as oleic acid (max.)	Moisture (Max.)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Andhra Pradesh	40.0 to 43.0	24	3	0.5
2.	Andaman & Nicobar Islands	41.0 to 44.0	24	3	0.5
3.	Arunachal Pradesh	40.0 to 43.0	26	3	0.5
4.	Assam	40.0 to 43.0	26	3	0.5
5.	Bihar	40.0 to 43.0	28	3	0.5
6.	Chandigarh	40.0 to 43.0	28	3	0.5
7.	Chattisgarh	40.0 to 44.0	26	3	0.5
8.	Dadra and Nagar haveli	40.0 to 43.0	24	3	0.5
9.	Delhi	40.0 to 43.0	28	3	0.5
10.	Goa	40.0 to 43.0	26	3	0.5
11.	Daman & Diu	40.0 to 43.5	24	3	0.5
12.	Gujarat				
	a) Areas other than cotton tract areas	40.0 to 43.5	24	3	0.5
	b) Cotton tract areas	41.5 to 45.0	21	3	0.5

(1)	(2)	(3)	(4)	(5)	(6)
13.	Haryana				
	a) Areas other than cotton tract areas	40.0 to 43.0	28	3	0.5
	b) Cotton tract areas	40.0 to 43.0	26	3	0.5
14.	Himachal Pradesh	40.0 to 43.0	26	3	0.5
15.	Jammu & Kashmir	40.0 to 43.0	26	3	0.5
16.	Jharkhand	40.0 to 43.0	28	3	0.5
17.	Karnataka				
	a) Areas other than Belgaum district	40.0 to 43.0	24	3	0.5
	b) Belgaum district	40.0 to 44.0	26	3	0.5
18.	Kerala	40.0 to 43.0	26	3	0.5
19.	Lakshwadeep	40.0 to 43.0	26	3	0.5
20.	Madhya Pradesh				
	a) Areas other than cotton tract areas	40.0 to 44.0	26	3	0.5
	b) Cotton tract areas	41.5 to 45.0	21	3	0.5
21.	Maharashtra				
	a) Areas other than cotton tract areas	40.0 to 43.0	26	3	0.5
	b) Cotton tract areas	41.5 to 45.0	21	3	0.5
22.	Manipur	40.0 to 43.0	26	3	0.5
23.	Meghalya	40.0 to 43.0	26	3	0.5
24.	Mizoram	40.0 to 43.0	26	3	0.5
25.	Nagaland	40.0 to 43.0	26	3	0.5
26.	Orisssa	40.0 to 43.0	26	3	0.5
27.	Pondicherry	40.0 to 44.0	26	3	0.5
28.	Punjab	40.0 to 43.0	28	3	0.5
29.	Rajasthan				
	a) Areas other than Jodhpur District	40.0 to 43.0	26	3	0.5
	b) Jodhpur district	41.5 to 45.0	21	3	0.5
30.	Tamil Nadu	41.0 to 44.0	24	3	0.5
31.	Tripura	40.0 to 43.0	26	3	0.5
32.	Uttar Pradesh	40.0 to 43.0	26	3	0.5
33.	Uttarakhand	40.0 to 43.0	26	3	0.5
34.	West Bengal				
	a) Areas other than Bishnupur sub division	40.0 to 43.0	28	3	0.5
	b) Bishnupur sub division	41.5 to 45.0	21	3	0.5
34.	Sikkim	40.0 to 43.0	28	3	0.5

(Baudouin test shall be negative)

Explanation.-By cotton tract is meant the areas in the States where cotton seed is extensively fed to the cattle and so notified by the State Government concerned.

3. Milkfat / Butter oil and Anhydrous Milk fat / Anhydrous Butter oil means the fatty products derived exclusively from milk and/ or products obtained from milk by means of process which result in almost total removal of water and milk solids not fat. It shall have pleasant taste and flavour free from off odour and rancidity. It shall be free from vegetable oil/ fat, animal body fat, mineral oil, added flavour and any other substance foreign to milk. It may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

<i>Requirements</i>	<i>Milk fat/Butter Oil</i>	<i>Anhydrous milk fat/ Anhydrous Butter Oil</i>
(i) B.R reading at 40°C	40-44	40-44
(ii) Moisture m/m	Not more than 0.4 percent	Not more than 0.1 percent
(iii) Milk Fat m/m	Not less than 99.6 percent	Not less than 99.8 percent
(iv) Reichert Value	Not less than 24	Not less than 24
(v) F.F.A as oleic acid	Not more than 0.4 percent	Not more than 0.3 percent
(vi) Peroxide Value (milli eqvt of Oxygen/ Kg fat)	Not more than 0.6 percent	Not more than 0.3 percent
(vii) Boudouins Test	Negative	Negative

**: CHAKKA AND SHRIKHAND**

1. Chakka-means a white to pale yellow semi-solid product of good texture and uniform consistency obtained by draining off the whey from the Yoghurt obtained by the lactic fermentation of cow's milk, buffalo's milk, skimmed milk and recombined or standardised milk which has been subjected to minimum heat treatment equivalent to that of pasteurisation. It shall have pleasant Yoghurt/Dahi like flavour. It shall not contain any ingredient foreign to milk. It shall be free from mouldness and free from signs of fat or water seepage or both. It shall be smooth and it shall not appear dry. It shall not contain extraneous colour and flavours. It shall conform to the following requirements, namely :—

<i>Requirements</i>	<i>Chakka</i>	<i>Skimmed Milk Chakka</i>	<i>Full Cream Chakka</i>
1. Total solids, per cent by weight	Min. 30	Min.20	Min.28
2. Milk fat (on dry basis) per cent by weight	Min.33	Max. 5	Min. 38
3. Milk protein ( on dry basis) per cent by weight	Min.30	Min.60	Min.30
4. Titrable acidity ( as lactic acid) percent by Weight	Max.2.5	Max.2.5	Max.2.5
5. Total Ash ( on dry basis) percent by weight	Max.3.5	Max.5.0	Max. 3.5;

Chakka when sold without any indication shall conform to the standards of Chakka.

2. Shrikhand-means the product obtained from chakka or Skimmed Milk Chakka to which milk fat is added. It may contain fruits, nuts, sugar, cardamom, saffron and other spices. It shall not contain any added colouring and artificial flavouring substances. It shall conform to the following specifications, namely:—

<i>Requirements</i>	<i>Shrikhand</i>	<i>Full Cream Shrikhand</i>
1. Total solids, per cent by weight	Not less than...58	Not less than...58
2. Milk fat (on dry basis) per cent by weight	Not less than...8.5	Not less than...10
3. Milk protein ( on dry basis) per cent by weight (for Fruit Shrikhand- Not less than.....6.0)	Not less than...9	Not less than...7
4. Titrable acidity ( as lactic acid) percent by weight	Not more than ....1.4	Not more than ....1.4
5. Sugar (sucrose)( on dry basis) per cent by weight	Not more than... 72.5	Not more than... 72.5
6. Total Ash ( on dry basis) percent by weight	Not more than ....0.9	Not more than ....0.9.

In case of Fruits Shrikhand it shall contain Milk fat (on dry basis) per cent by weight... Not less than 7.0 and Milk Protein (on dry basis) per cent by weight... Not less than 9.0.

: FERMENTED MILK PRODUCTS

1. Yoghurt means a coagulated product obtained from pasteurised or boiled milk or concentrated milk, pasteurised skimmed milk and /or pasteurised cream or a mixture of two or more of these products by lactic acid fermentation through the action of *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. It may also contain cultures of *Bifidobacterium bifidus* and *Lactobacillus acidophilus* and other cultures of suitable lactic acid producing harmless bacteria and if added a declaration to this effect shall be made on the label. The microorganisms in the final product must be viable and abundant. It may contain milk powder, skimmed milk powder, unfermented buttermilk, concentrated whey, whey powder, whey protein, whey protein concentrate, water soluble milk proteins, edible casein, and caseinates manufactured from pasteurised products. It may also contain sugar, corn syrup or glucose syrup in sweetened, flavoured and fruit yoghurt or fruits in fruits yoghurt. It shall have smooth surface and thick consistency without separation of whey. It shall be free from vegetable oil/ fat, animal body fat, mineral oil and any other substance foreign to milk. The product may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

<i>Product</i>	<i>Milk Fat</i>	<i>Milk solids not fat</i>	<i>Milk protein</i>	<i>Sugar</i>
(i) Yoghurt	Not less than 3.0 percent m/m	Not less than 8.5 percent m/m	Not less than 3.2 percent m/m	-
(ii) Partly skimmed Yoghurt	Not less than 0.5 percent m/m & Not more than 3.0 percent m/m	Not less than 8.5 percent m/m	Not less than 3.2 percent m/m	-
(iii) Skimmed Yoghurt	Not more than 0.5 percent m/m	Not less than 8.5 percent m/m	Not less than 3.2 percent m/m	-
(iv) Sweetened Flavoured Yoghurt	Not less than 3.0 percent m/m	Not less than 8.5 percent m/m	Not less than 3.2 percent m/m	Not less than 6.0 percent m/m
(v) Fruit Yoghurt	Not less than 1.5 percent m/m	Not less than 8.5 percent m/m	Not less than 2.6 percent m/m	Not less than 6.0 percent m/m

Provided that Titrable acidity as lactic acid shall not be less than 0.85 percent and not more than 1.2 percent. The specific lactic acid producing bacterial count per gram shall not be less than 10,00,000. Provided further that the type of Yoghurt shall be clearly indicated on the label otherwise standards of plain Yoghurt shall apply. The Yoghurt subjected to heat treatment after fermentation at temperature not less than 65 degree C shall be labelled as Thermised or Heat Treated Yoghurt and shall conform to the above parameters except the minimum requirement of specific lactic acid producing count per gram.

: WHEY PRODUCTS

1. Whey Powder means the product obtained by spray or roller drying sweet whey or acid whey from which major portion of milk fat has been removed. Sweet Whey means the fluid separated from the curd after the coagulation of milk, cream, skimmed milk or buttermilk in the manufacture of cheese, casein or similar products, principally with non-animal rennet type enzymes.

Acid Whey is obtained after coagulation of milk, cream, skimmed milk or buttermilk, principally with acids of the types used for manufacture of edible acid casein, chhana, paneer, or fresh cheese. It shall be of uniform colour with pleasant taste and flavour free from off flavour and rancidity. It may contain food additives permitted in these regulation including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

<i>Requirements</i>	<i>Whey Powder</i>	<i>Acid Whey Powder</i>
(i) Moisture	Not more than 5.0 percent	Not more than 4.5 percent
(ii) Milk Fat	Not more than 2.0 percent m/m	Not more than 2.0 percent m/m
(iii) Milk Protein (N x 6.38)	Not less than 10.0 percent m/m	Not less than 7.0 percent m/m
(iv) Total Ash	Not more than 9.5 percent m/m	Not more than 15.0 percent m/m
(v) pH (in 10.0% solution)	Not less than 5.1	Not more than 5.1
(vi) Lactose content expressed as anhydrous Lactose	Not less than 61.0 percent m/m	Not less than 61.0 percent m/m

Note: (i) Although the powders may contain both anhydrous lactose and lactose monohydrates, the lactose content is expressed as anhydrous lactose.

(ii) 100 parts of lactose monohydrate contain 95 parts of anhydrous lactose.

#### : EDIBLE CASEIN PRODUCTS

1. Edible Casein Products mean the products obtained by separating, washing and drying the coagulum of skimmed milk.

2. Edible acid casein means the product obtained by separating, washing and drying the acid precipitated coagulum of skimmed milk.

3. Edible non-animal rennet casein means the product obtained after washing and drying the coagulum remaining after separating the whey from the skimmed milk which has been coagulated by non-animal rennet or by other coagulating enzymes

4. Edible caseinate means the dry product obtained by reaction of edible casein or fresh casein curd with food grade neutralising agents and which have been subjected to an appropriate heat treatment. It shall be qualified by the name of the cation and the drying process used (Spray or Roller dried).

The products shall be white to pale cream or have greenish tinge; free from lumps and any unpleasant foreign flavour, it may contain food additives permitted in these regulations including Appendix A. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirements:—

<i>Requirements</i>	<i>Non-animal rennet Casein</i>	<i>Acid Casein</i>	<i>Caseinate</i>
(i) Moisture	Not more than 12.0 percent m/m	Not more than 12.0 percent m/m	Not more than 8.0 percent m/m
(ii) Milk Fat	Not more than 2.0 percent m/m	Not more than 2.0 percent m/m	Not more than 2.0 percent m/m
(iii) Milk Protein (Nx6.38) on dry weight basis	Not less than 84.0 percent m/m	Not less than 90.0 percent m/m	Not less than 88.0 percent mm
(iv) Casein in Protein	Not less than 95.0 percent m/m	Not less than 95.0 percent m/m	Not less than 95.0 percent m/m
(v) Ash including P <sub>2</sub> O <sub>5</sub>	Not less than 7.5 percent m/m	Not more than 2.5 percent m/m	—
(vi) Lactose	Not more than 1.0 percent m/m	Not more than 1.0 percent m/m	Not more than 1.0 percent m/m
(vii) Free fatty Acid ml/0.1N NaOH/gm	-	Not more than 0.27 percent	-
(viii) pH Value in 10% solution	-	-	Not more than 8.0

#### : FATS, OILS AND FATEMULSIONS

##### OILS:

1. Coconut oil (naryal ka tel) means the oil expressed from copra obtained from the kernel of *Cocos mucifera* nuts. It shall be clear and free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C.	34.0 to 35.5
OR	
Refractive Index at 40°C	1.4481-1.4491
Saponification value	Not less than 250
Iodine value	7.5 to 10.
Polenske Value	Not less than 13
Unsaponifiable matter	Not more than 1.0 per cent.
Acid value	Not more than 6.0.

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these regulations and appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

2. Cotton seed oil (binola ka tel) means the oil extracted from clean, sound delinted and decorticated cotton seeds (genus *Gossypium*). It shall be refined. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C.	55.6 to 60.2
OR	
Refractive Index at 40°C	1.4630-1.4660
Saponification value	190 to 198
Iodine value	98 to 112.
Unsaponifiable matter	Not more than 1.5 per cent.
Acid value	Not more than 0.50

There shall be no turbidity after keeping the filtered sample at 30°C for 24 hours

Bellier Test (Turbidity temperature- Acetic acid method)	19.0°C -21.0°C
---	----------------

Test for Argemone oil shall be negative

However, it may contain food additives permitted in these regulations and appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

3. Groundnut oil (moongh-phali-ka tel) means the oil expressed from clean and sound groundnuts (*Arachis hypogoes*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C	54.0 to 57.1
Or	
Refractive Index at 40°C	1.4620-1.4640
Saponification value	188 to 196
Iodine value	85 to 99.



Unsaponifiable matter	Not more than 1.0 per cent.
Acid value	Not more than 6.0
Bellier test (Turbidity temperature Acetic acid method)	39°C to 41°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

4. Linseed oil (tili ka tel) means the oil obtained by process of expressing clean and sound linseed (*linum usitatissimum*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substance, or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 oC	69.5-74.3
Or	
Refractive Index at 40°C	1.4720-1.4750
Saponification value	188 to 195
Iodine value	Not less than 170
Unsaponifiable matter	Not more than 1.5 per cent.
Acid value	Not more than 4.0

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain hexane more than 5.00 ppm.

5. Mahua oil means the oil expressed from clean and sound seeds or nuts of *Madhuca* (*Bassi latifolia* or *B. longifolia* or a mixture of both). It shall be clear and shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall be refined and shall conform to the following standards:—

Butyro-refractometer reading at 40°C	49.5 to 52.7
Or	
Refractive Index at 40°C	1.4590- 1.4611
Saponification value	187 to 196
Iodine value	58 to 70
Unsaponifiable matter	Not more than 2.0 per cent
Acid value	Not more than 0.50

Test for argemone oil shall be negative

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

6. Rape-seed oil (toria oil) mustard oil (sarson ka tel) means the oil expressed from clean and sound mustard seeds, belonging to the *compestris*, *juncea* or *napus* varieties of *Brassica*. It shall be clear free from rancidity, suspended or foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C	58.0 to 60.5
OR	
Refractive index at 40°C	1.4646 to 1.4662
Saponification value	168 to 177
Iodine value	96-112: Polybromide test shall be Negative
Unsaponifiable matter	Not more than 1.2 per cent by weight
Acid value	Not more than 6.0
Bellier test (Turbidity temperature - Acetic acid Method)	23.0°C to 27.5°C
Test for Argemone oil	Negative
Test for Hydrocyanic Acid	Negative
Test for argemone oil shall be negative	

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

7. Rapeseed or mustard oil - low erucic acid means the oil obtained from clean and sound, low erucic acid oil bearing seeds of rapeseed belonging to *compestris*, *juncea*, or *napus* varieties of *Brassica* by the method of expression or solvent extraction and it shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil and shall contain not more than 2 % erucic acid (as % of total fatty acids) and shall conform to the following standards, namely:—

Butyro-refractometer reading at 40°C	58.6 to 61.7 OR
Refractive index at 40°C	1.465 to 1.467
Iodine value (Wij's method)	105 to 126
Saponification value	182-193
Unsaponifiable matter	Not more than 20g/kg
Acid value	Not more than 0.6
Bellier test (Turbidity temperature - Acetic acid Method)	Not more than 19.0°C
Test for Argemone oil	Negative
Test for Hydrocyanic Acid (Ferric Chloride test)	Passes the test

Further, Rapeseed oil obtained by solvent extraction shall be supplied for human consumption only if it is refined and it shall conform to the standard laid down under regulation 2.2.1 (16) except acid value which shall be not more than 0.6. Additionally, it shall have Flash Point (Pensky Marten Closed Method) not less than 250°C and the oil so refined shall contain Hexane not more than 5.00 ppm :

Provided further that it may contain food additives permitted under these Regulations and Appendices".

8. Olive oil means the oil expressed from the fruit of the olive tree (*Olea europaea sativa* Hoffm. et Link). It shall be of three types:—

(i) Virgin olive oil means the oil obtained from the fruit of the olive tree by mechanical or other physical means under conditions, particularly thermal, which do not lead to alteration of the oil. Virgin olive oil is oil which is suitable for consumption in the natural state without refining. It shall be clear, yellow to green in colour, with specific odour and taste, free from odours or tastes indicating alteration or pollution of oil. It shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil.

(ii) Refined olive oil means the oil obtained from virgin olive, the acid content and or organoleptic characteristics of which render it unsuitable for consumption in the natural state, by means of refining methods which do not lead to alterations in the initial glyceridic structure. It shall be clear, limpid without sediment, yellow in colour, without specific odour or taste and free from odours or taste indicating alteration or pollution of oil. It shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil.

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

(iii) Refined olive-pomace oil means the oil obtained from "olive pomace" by extraction by means of solvents and made edible by means of refining methods which do not lead to alteration in the initial glyceridic structure. It shall be clear, limpid, without sediment, yellow to yellow-brown in colour, without specific odour or taste and free from odours or tastes indicating alteration or pollution of the oil. It shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil.

However, it may contain food additives permitted in these Regulations and Appendices.

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16) . The oil so refined shall not contain Hexane more than 5.00ppm

It shall conform to the following standards:—

<i>Parameters</i>	<i>Virgin olive oil</i>	<i>Refined olive oil</i>	<i>Refined olive— Pomace oil</i>
B.R. Reading at 40°C	51.0-55.6	51.0-55.6	51.6-55.9
Or			
Refractive Index at 40°C	1.4600-1.4630	1.4600-1.4630	1.4604-1.4632
Saponification value (mg KOH/g oil)	184-196	184-196	182-193
Iodine value (wijs)	75-94	75-94	75-92
Unsaponifiable matter (using light petroleum)	Not more than 15g/kg	Not more than 15g/kg	Not more than 30g/kg
Acid Value	Not more than 6.0	Not more than 0.5	Not more than 0.5
Bellier test	Not more than 17°C	Not more than 17° C	Not applicable
Semi-Siccative oil test	Negative	Negative	Negative
Olive pomace oil test	Negative	Negative	Negative
Cotton seed oil test	Negative	Negative	Negative
Teaseed oil test	Negative	Negative	Negative
Sesame seed oil test	Negative	Negative	Negative
Test for Argemone oil	Negative	Negative	Negative

9. Poppy seed oil means the oil expressed from poppy seeds (*papaver somniferum*). It shall be clear, free from rancidity, suspended or other foreign matter separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C	60.0 to 64.0
Or	
Refractive Index at 40°C	1.4659 - 1.4685
Saponification value	186 to 194
Iodine value	133 to 143
Unsaponifiable matter	Not more than 1.0 per cent
Acid value	Not more than 6.0

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

10. Safflower seed oil (berry ka tel) means the oil expressed from the seeds of *Carthamus tinctorius*. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C	62.4 to 64.7
Or	
Refractive Index at 40°C	1.4674-1.4689
Saponification value	186-196
Iodine value	135-148
Unsaponifiable matter	Not more than 1.0 per cent
Acid value	Not more than 6.0
Bellier test Turbidity temperature Acetic acid method	Not more than 16°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

10.01 Safflowerseed oil and Safflowerseed oil (High Oleic Acid) means the oil expressed from the seeds of *Carthamus tinctorius* L. It shall be clear, free from rancidity, suspended or foreign matter, separated water, added colouring or flavouring substances, or mineral oil. Safflowerseed oil (High Oleic Acid) shall contain not less than 70% oleic acid as percent of total fatty acid shall conform to the following standards:—

<i>Parameters</i>	<i>High Oleic Acid Safflowerseed Oil</i>	<i>Safflowerseed Oil</i>
B.R. Reading at 40°C	51.0-57.1	61.7-66.4
Or		
Refractive Index at 40°C	1.460-1.464	1.467-1.470

Iodine value (wijs method)	80-100	136-148
Saponification value	186-194	186-198
Unsaponifiable matter	Not more than 10g/kg	Not more than 15g/kg
Acid Value	Not more than 4.0 mg/KOH/g oil	Not more than 4.0 mg/KOH/g oil
Bellier test (Turbidity temperature Acetic acid method)	Not more than 16°C	Not more than 16°C
Test for Argemone oil	Negative	Negative

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00ppm.

11. TARAMIRA OIL means the oil expressed from clean and sound seeds of Taramira (*Eruca sativa*). It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 °C	58.0 to 60.0
Or	
Refractive Index at 40°C	1.4646-1.4659
Saponification value	174 to 177
Iodine value	99 to 105
Unsaponifiable matter	Not more than 1.0 per cent
Acid value	Not more than 6.0

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

12. TIL OIL (Gingelly or sesame oil) means the oil expressed from clean and sound seeds of Til (*Sesamum indicum*), black, brown, white, or mixed. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 °C	58.0 to 61.0
Or	
Refractive Index at 40°C	1.4646-1.4665
Saponification value	188-193
Iodine value	103-120
Unsaponifiable matter	Not more than 1.5 per cent
Acid value	Not more than 6.0
Bellier test (Turbidity temperature Acetic acid method)	Not more than 22 °C

Provided that the oil obtained from white sesame seeds grown in Tripura, Assam and West Bengal shall conform to the following standards:—

Butyro-refractometer

reading at 40 °C	60.5 to 65.4
Or	
Refractive Index at 40°C	1.4662-1.4694
Saponification value	185 to 190
Iodine value	115 to 120
Acid value	Not more than 6.0
Unsaponifiable matter	Not more than 2.5 per cent
Bellier test (Turbidity temperature Acetic acid method)	Not more than 22°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these regulations and Appendix A

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

13. NIGER SEED OIL (Sargiya ka tel) means the edible oil obtained by process of expressing clean and sound seeds of *Guizotia abyssinica*. It shall be clear and free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, mineral or other oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 °C	61.0-65.0
Or	
Refractive Index at 40°C	1.4665-1.4691
Saponification value	188-193
Iodine value	110 to 135
Unsaponifiable matter	Not more than 1.0 per cent
Acid value	Not more than 6.0
Bellier test (Turbidity temperature Acetic acid method)	25°C - 29°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

14. Soyabean oil means the oil expressed from clean and sound soyabeans (*Soja max*) from which the major portion of the gums naturally present have been removed by hydration and mechanical or physical separation. It shall be clear, free from rancidity, suspended or other foreign matter, separated water added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 °C	58.5 to 68.0
Or	
Refractive Index at 40°C	1.4649-1.4710
Saponification value	189 to 195
Iodine value	120 to 141
Unsaponifiable matter	Not more than 1.5 per cent

Acid value	Not more than 2.50
Phosphorus	Not more than 0.02

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

15. Maize (corn) oil means the oil, extracted from the germ of clean and sound seeds of *zea mays* linn. fam. graminiae, refined. it shall be free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or Mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40°C	56.7 to 62.5
Or	
Refractive Index at 40°C	1.4637-1.4675
Saponification value	187 to 195
Iodine value	103 to 128
Unsaponifiable matter	Not more than 1.5 per cent
Acid value	Not more than 0.50

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

16. Refined vegetable oil means any vegetable oil which is obtained by expression or solvent extraction of vegetable oil bearing materials, deacidified with alkali and/or physical refining and/or by miscella refining using permitted foodgrade solvents followed by bleaching with absorbent earth and/or carbon and deodourised with steam. No other chemical agent shall be used. The name of the vegetable oil from which the refined oil has been manufactured shall be clearly specified on the label of the container. In addition to the under-mentioned standards to which refined vegetable oils shall conform to the standards prescribed in these regulations for the specified edible oils shall also apply except for acid value which shall be not more than 0.5. Moisture shall not exceed 0.10 per cent by weight.

Test for argemone oil shall be negative.

1. The refined vegetable oil shall be obtained from the following vegetable oils:

- (i) Coconut Oil
- (ii) Cottonseed Oil
- (iii) Groundnut Oil
- (iv) Nigerseed Oil
- (v) Safflower Oil
- (vi) Sesame Oil
- (vii) Soyabean Oil
- (viii) Sunflower Oil
- (ix) Mustard/Rapeseed Oil
- (x) Linseed Oil

- (xi) Mahua Oil
- (xii) Olive Oil
- (xiii) Poppyseed Oil
- (xiv) Taramira Oil
- (xv) Maize (Corn) oil
- (xvi) Watermelonseed Oil
- (xvii) Palm Oil
- (xviii) Palmolein
- (xix) Palm Kernel Oil
- (xx) Rice Bran Oil
- (xxi) Salseed fat
- (xxii) Mango Kernel fat
- (xxiii) Kokum fat
- (xxiv) Dhupa fat
- (xxv) Phulwara fat

2. The refined vegetable oil shall comply with the following requirements:

The oils shall be clear and free from rancidity, adulterants, sediments, suspended and other foreign matter, separated water, added colouring and flavouring substances and mineral oil

3. However, it may contain food additives permitted in these Regulations and Appendices

17. Almond oil means the oil expressed from the seeds of *Prunus amygdalus Batach*, var, *dulcis koehne* (sweet almond) or of *Prunus amygdalus Batach*, var *Amara Focke* (bitter almond) without the application of heat. It shall be clear from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards:—

Butyro-refractometer reading at 40 °C	54 to 57
Or	
Refractive Index at 40°C	1.4620-1.4639
Saponification value	186 to 195
Iodine value	90 to 109
Acid value	Not more than 6.0
Bellier test Turbidity temperature Acetic acid method	Not more than 60°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

18. Water-melon seed oil means the oil extracted from the clean, sound seeds of the fruit of water-melon (*Citrullus vulgaris* Schrad, family: *Cucurbitaceae*). It shall be clear, free from rancidity, adulterants, sediments, suspended and other foreign matter, separated water, added colouring and flavouring substances and mineral oil. It shall conform to the following standards:—

Moisture and volatile matter	Not more than 0.25 per cent
Butyro-refractometer reading at 40 °C	55.6 - 61.7

Or



Refractive Index at 40°C	1.4630-1.4670
Saponification value	190 -198
Iodine value	115 -125
Acid value	Not more than 6.0
Unsaponifiable matter	Not more than 1.5 %

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00ppm.

19. Palm oil means the oil obtained from fleshy mesocarp of fruits of the oil palm (*Elaeis Guinensis*) tree by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring and flavouring substances or mineral oil. It shall conform to the following standards, namely:—

Butyro-refractometer reading at 50 °C	35.5 -44.0
Or	
Refractive Index at 50 °C point (capillary slip method)	1.4491-1.4552 Melting Not more than 37 °C
Iodine value(Wij's method)	45-56
Saponification value	195-205
Unsaponifiable matter	Not more than 1.2 per cent
Acid value	Not more than 10.0

Indigenously produced raw Palm Oil obtained by method of expression may be supplied for human consumption as such provided acid value is not more than 6.0 But palm oil imported into the country or produced by solvent extraction shall be refined before it is supplied for human consumption and it shall conform to the standards laid down under regulation 2.2.1 (16). Additionally, it shall have Flash Point (Pensky-Marten closed method) - Not less than 250°C

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices The oil so refined shall not contain Hexane more than 5.00 ppm.

20. Palmolein means the liquid fraction obtained by fractionation of palm oil obtained from the fleshy mesocarp of fruits of oil palm (*Elaeis Guineensis*) tree by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter separated water, added colouring and flavouring substances or mineral oils. It shall conform to the following standards, namely:—

Butyro-refractometer reading at 40 °C	43.7 - 52.5
Or	
Refractive Index at 40 °C	1.4550 - 1.4610
Iodine value (Wij's method)	54-62
Saponification value	195-205
Cloud Point	Not more than 18°C
Unsaponifiable matter	Not more than 1.2 per cent
Acid value	Not more than 6.0

Further, if the palmolein is obtained from solvent extracted palm oil, it shall be refined before it is supplied for human consumption and it shall conform to the standards laid down under regulation 2.2.1 (16). Additionally, it shall have Flash Point (Pensky Marten closed method) - not less than 250°C.

Test for argemone oil shall be negative. However, it may contain food additives permitted in these Regulations and Appendices

The oil so refined shall not contain Hexane more than 5.00 ppm.

21. Palm kernel oil means the oil obtained from sound kernel of the fruits of oil palm (*Elaeis guinensis*) tree by the method of expression or solvent extraction. It shall be clear, free from rancidity suspended, or other foreign matter, separated water, added colouring and flavouring substances or mineral oil. It shall conform to the following standards, namely:—

Butyro-refractometer reading at 40 °C	35.3 -39.5
Or	
Refractive Index at 40 °C	1.4490 - 1.4520
Iodine value (Wij's method)	10 - 23
Saponification value	237-255
Unsaponifiable matter	Not more than 1.2 per cent
Acid value	Not more than 6.0

Further, if the oil is obtained by the method of solvent extraction, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). additionally, it shall have flash point (pensky marten closed method) - not less than 250°C.

test for argemone oil shall be negative.

however, it may contain food additives permitted in these regulations and appendices the oil so refined shall not contain hexane more than 5.00 ppm.

22. Sun flower seed oil means the oil obtained from clean and sound sunflower seeds or cake from the plants *Helianthus annuus* linn (Family:compositae) by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances or mineral oil. It shall conform to the following standards, namely:—

Butyro-refractometer reading at 40°C	57.1 -65.0
Or	
Refractive Index at 40°C	1.4640 - 1.4691
Iodine value (Wij's method)	100 - 145
Saponification value	188-194
Unsaponifiable matter	Not more than 1.5 per cent
Acid value	Not more than 6.0

Further, if the oil is obtained by the method of solvent extraction, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). Additionally, it shall have Flash Point (Pensky Marten closed method) - not less than 250°C.

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices The oil so refined shall not contain Hexane more than 5.00 ppm.

22.01 Sunflowerseed oil and Sunflowerseed oil (High Oleic Acid) means the oil obtained from clean and sound Sunflowerseed or the High Oleic acid oil bearing Sunflowerseeds of *Helianthus annuus* L. by the method of expression or solvent extraction. It shall be clear, free from rancidity, suspended foreign matter, separated water, added colouring or flavouring substance or mineral oil. It shall contain not less than 75% oleic acid as percent of total fatty acids. It shall conform to the following standards:—

<i>Parameters</i>	<i>High Oleic Acid Sunflowerseed Oil</i>	<i>Sunflowerseed Oil</i>
B.R. Reading	61.7-68.0 at 25°C	52.5-63.2 at 40°C
Or		
Refractive Index	1.467-1.471 at 25°C	1.461-1.468 at 40°C
Iodine value (Wijs method)	78-90	118-141
Saponification value	182-194	188-194
Unsaponifiable matter	Not more than 15g/kg	Not more than 15g/kg
Acid Value	Not more than 4.0 mg/KOH/g oil	Not more than 4.0 mg/KOH/g oil
Test for Argemone oil	Negative	Negative

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than ppm.

23 Rice bran oil means the oil obtained from the layer around the endosperm of rice obtained from paddy of *Oryza Sativa* Linn. Fam Gramineae which is removed during the process of rice milling and is generally known as rice bran.

Refined Rice Bran Oil shall be obtained from solvent extracted oil, neutralised with alkali, bleached with bleaching earth or activated carbon or both and deodorised with steam. Alternatively deacidification' bleaching and deodorisation may be done by physical means.

The oil shall be clear and free from rancidity, adulterants, sediments, suspended and other foreign matters, separated water and added colouring and flavouring substances. The clarity of the oil shall be judged by the absence of turbidity after keeping the filtered sample at 35°C for 24 hrs. Rice Bran Oil shall be sold for human consumption only after refining. It shall conform to the following standards, namely:—

Moisture and Volatile Matter	Not more than 0.1 percent by weight
Refractive Index at 40 °C	1.4600 - 1.4700
Or	
Butyro-refractometer reading at 40 °C	51.0 - 66.4
Saponification value	180 - 195
Iodine value (Wij's method)	90 - 105
Acid value	Not more than 0.5
Unsaponifiable matter, percent by weight	
• for chemically refined	Not more than 3.5 percent
• for physically refined	Not more than 4.5 percent
• Oryzanol Content	Not less than 1.0 percent
Flash Point (Pensky Marten Closed method)	Not less than 250 °C Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). the oil so refined shall not contain hexane more than 5.00 ppm.

24. Blended edible vegetable oil means an admixture of any two edible vegetable oils where the proportion by weight of any edible vegetable oil used in the admixture is not less than 20 per cent. The individual oils in the blend shall conform to the respective standards prescribed by these regulations. The blend shall be clear, free from rancidity, suspended or insoluble matter or any other foreign matter, separated water, added colouring matter, flavouring substances, mineral oil, or any other animal and non-edible oils, or fats, argemone oils, hydrocyanic acid, castor oil and tricresyl phosphate. It shall also conform to the following standards, namely:—

a) Moisture and volatile matter	not more than 0.2 per cent by weight;
b) Acid value:—	
Nature of oil	Acid Value
(1) Both raw edible vegetable oils in the blend	Not more than 6.0
(2) One raw edible vegetable oil (s) and one refined vegetable oil (s) in the blend	Not more than 5.0
(3) Both refined edible vegetable oils in the blend	Not more than 0.5
(4) Unsaponifiable matter, percent by weight	
(i) Blended with chemically refined rice bran oil	Not more than 3.0 percent by weight
(ii) Blended with other edible vegetable oil	Not more than 1.50 percent by weight
(5) Flash point (Pensky Martin closed method)	Not less than 250°C

Test for Argemone oil shall be negative

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16).

the oil so refined shall not contain hexane more than 5.00 ppm.

Interesterified vegetable fat: means an edible fatty material that has been so treated as to bring about a rearrangement of fatty acid positions within the glyceride entities and hence a change in the physical properties like melting point, viscosity, specific gravity and the like with very little change in the constitution of the fatty acids themselves by a process of interesterification of the essentially neutral edible oil or fat, singly or in mixtures generally through the use of alkaline catalysts exemplified by sodium or potassium metals, or their ethoxides or hydroxides in the form either of anhydrous powders or in anhydrous glycerol medium followed by such post-process steps as washing, bleaching and deodourisation, the last of which can be omitted if the interesterified fat is to be incorporated as part of the raw material for further processing in edible fat products.

The interesterified fat shall be clear, free from soap, flavouring substances, rancidity, suspended or other foreign matter, separated water and mineral oil. It shall conform to the following standards, namely:—

- (i) It shall not contain any harmful colouring, flavouring or any other matter deleterious to health;
- (ii) No colour shall be added to interesterified fat unless so authorised by Government, but in no event any colour resembling the colour of ghee shall be added;
- (iii) If any flavour is used, it shall be distinct from that of ghee in accordance with a list of permissible flavours and in such quantities as may be prescribed by Government:

Provided that diacetyl to the extent of not more than 4.0 ppm may be added to interesterified fat exclusively meant for consumption by the Armed Forces;

- (iv) It shall not have moisture exceeding 0.25 per cent;
- (v) The melting point as determined by capillary slip method shall be from 31°C to 41°C, both inclusive;
- (vi) The Butyro-refractometer reading at 40°C, shall not be less than 48 or Refractive Index at 40°C shall not be less than 1.4580;
- (vii) It shall not have unsaponifiable matter exceeding 2.0 per cent;
- (viii) It shall not have free fatty acids (calculated as Oleic acid) exceeding 0.25 per cent;

(ix) The product on melting shall be clear in appearance and shall be free from staleness or rancidity, and pleasant to taste and smell;

(x) It shall contain raw or refined sesame (til) oil not less than 5 per cent by weight, but sufficient so that when it is mixed with refined groundnut oil in the proportion of 20:80, the colour produced by the Baudouin Test shall not be lighter than 2.0 red units in a 1 cm. cell on a Lovibond scale;

(xi) It shall contain not less than 25 I.U. of synthetic Vitamin A per gram at the time of packing and shall show a positive test for Vitamin A when tested by Antimony Trichloride (Carr-Price) reagent (As per IS: 5886-1970);

(xii) No anti-oxidant, synergist, emulsifier or any other such substance shall be added to it except with the prior sanction of the Authority.

Test for argemone oil shall be negative.

However, it may contain food additives permitted in these Regulations and Appendices

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

#### PARTIALLYHYDROGENATED SOYABEAN OIL

1. Partially hydrogenated and winterised soyabean oil means deodourised product obtained by light (mild or "Brush") hydrogenation of degummed, deacidified, decolourised and winterised soyabean oil. The oil shall be degummed by water with or without a food grade additive, deacidified by either neutralisation with alkali or steam distillation (physical refining) or miscella refining using permitted food grade solvent, decolourised with bleaching earth and/or carbon, partially hydrogenated using nickel catalyst, winterised with or without the use of a food grade solvent, filtered in a suitable filter press and deodourised with steam.

The product shall be clear, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, castor oil, mineral oil, and other vegetable and animal fats.

It may contain food additives permitted in these Regulations and Appendices. It

shall conform to the following standards:

Moisture	Not more than 0.1 percent by weight
Refractive Index at 40°C	1.4630 - 1.4690
Or	
Butyro-refractometer reading at 40°C	55.6 - 64.8
Saponification value	189 - 195
Iodine value (Wij's method)	107 - 120
Acid value	Not more than 0.50
Unsaponifiable Matter	Not more than 1.5 percent by weight
Linolenic Acid (c18:3)	Not more than 3 percent by weight
Cloud Point (°C)	Not more than 10°C
Flash Point (Pensky Marten Closed method)	Not less than 250 °C

Test for argemone oil shall be negative

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

2. Partially hydrogenated soyabean oil means deodourised product obtained by light (mild or "brush") hydrogenation of degummed, deacidified, decolorised soyabean oil. The oil shall be degummed by water with or without a food grade additive, deacidified by either neutralisation with alkali or steam distillation (physical refining) or miscella refining using permitted food grade solvent, decolourised with bleaching earth and/or carbon and partially hydrogenated using nickel catalyst. The product shall again be deacidified, bleached and deodourised with steam.

The product shall be clear liquid at 35 degree C. It shall be clear on melting, free from rancidity, suspended or other foreign matter, separated water, added colouring or flavouring substances, castor oil, mineral oil or other vegetable and animal Oils & fats.

It may contain food additives permitted in these Regulations and Appendices It shall conform to the following standards:

Moisture	Not more than 0.1 percent by weight
Refractive Index at 40 °C	1.4630 - 1.4670
Or	
Butyro-refractometer reading at 40 °C	55.6 - 61.7
Saponification value	189 - 195
Iodine value (Wij's method)	95 - 110
Acid value	Not more than 0.50
Unsaponifiable Matter	Not more than 1.5 percent by weight
Linolenic Acid (c18: 3)	Not more than 3 percent by weight
Cloud Point (°C)	Not more than 25°C
Flash Point (Penske Marten Closed method)	Not less than 250 °C
Test for argemone oil shall be negative	

Note : The edible oils prescribed under regulation 2.2.1 shall be free from Castor oil.

Further, if the oil is obtained by the method of solvent extraction and the oil imported into India whether obtained by solvent extraction or otherwise, it shall be supplied for human consumption only after refining and shall conform to the standards laid down under regulation 2.2.1 (16). The oil so refined shall not contain Hexane more than 5.00 ppm.

#### EDIBLE FATS:

1. Beef fat or suet means fat obtained from a beef carcass. it shall have a saponification value varying from 193 to 200 and an iodine value from 35 to 46.

it may contain food additives permitted in these regulations and appendices

2. Mutton fat means fat obtained from the carcass of sheep. it shall have a saponification value varying from 192 to 195 and an iodine value from 35 to 46.

it may contain food additives permitted in these regulations and appendices

3. Goat fat means the rendered fat from goat. it shall have a saponification value varying from 193 to 196 and iodine value from 36 to 45.

It may contain food additives permitted in these Regulations and Appendices

4. Lard means the rendered fat from hogs and shall not contain more than one per cent of substances other than fatty acids and fat. it shall have a saponification value varying from 192 to 198 and iodine value from 52 to 65.

it may contain food additives permitted in these regulations and appendices

5. Cocoa butter means the fat obtained by expression from the nibs of the beans of *Theobroma cocoa* L. It shall be free from other oils and fats, mineral oil and added colours. It shall conform to the following standards:

Percentage of free fatty acids  
(calculated as oleic acid)

Not more than 1.5

Iodine value 32 to 42

Melting point 29°C to 34°C.

Butyro refractometer reading at  
40°C

OR

Refractive Index at 40°C 40.9 to 48.0

1.4530-1.4580;

Saponification value 188 to 200

6. Refined salseed fat means the fat obtained from seed kernels of sal trees, *shorea robusta* Gaertn, *F.(N..diperrocaspaeae* which has been neutralized with alkali, bleached with bleaching earth or activated carbon or both, and deodorized with steam, no other chemical agents being used. Alternatively, deacidification, bleaching and deodorisation may be done by physical means. The material shall be clear on melting and free from adulterants, sediment, suspended or other foreign matter, separated water or added colouring substance. However, it may contain food additives permitted in these Regulations and Appendices. There shall be no turbidity after keeping the filtered sample at 40°C for 24 hours. It shall conform to the following standards:—

- |   |                           |             |
|---|---------------------------|-------------|
| (i) Moisture                              | Not more than 0.1 percent |             |
| (ii) Butyro refractometer reading at 40°C |                           | 36.7 - 51.0 |

OR

- |        |  |                                      |
|--------|--|--------------------------------------|
|        | Refractive Index at 40°C                   | 1.4500 - 1.4600                      |
| (iii)  | Iodine Value (Wijs' Method)                | 31 - 45                              |
| (iv)   | Saponification value                       | 180 - 195                            |
| (v)    | Unsaponifiable matter                      | Not more than 2.5 percent by weight  |
| (vi)   | Free fatty acids (expressed as Oleic acid) | Not more than 0.25 percent by weight |
|        | Acid value                                 | Not more than 0.5                    |
| (vii)  | 9:10 epoxy and 9:10 Dihydroxy stearic acid | Not more than 3.0 percent by weight  |
| (viii) | Flash point (Pensky Marten closed method)  | Not less than 250°C                  |

Test for argemone oil shall be negative

7. Kokum Fat means the fat obtained from clean and sound kernels of Kokum (*Garcinia indica choisy*) "also known as kokum, by process of expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediments, suspended or other foreign matter, separated water, added colouring and flavouring matters and mineral oil." However, it may contain food additives permitted in these regulations and Appendix A.

It shall also conform to the following standards, namely:—

- |     |  |                                      |
|-----|--|--------------------------------------|
| (a) | Butyro-refractometer reading at 40°C, or | 45.9-47.3                            |
|     | Refractive Index at 40°C                 | 1.4565 to 1.4575                     |
| (b) | Saponification value                     | 187-191.7                            |
| (c) | Unsaponifiable matters                   | Not more than 1.5 per cent by weight |
| (d) | Iodine value (wijs)                      | 32-40                                |
| (e) | Acid value                               | Not more than 0.5                    |
| (f) | Flash Point                              | Not less than 250°C                  |

Pensky-Martens (closed) method Test

for argemone oil shall be negative.

8. Mango Kernel Fat means the fat obtained from clean and sound kernels of Mango (*Magifera Indica* Linn) by process of expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediment suspended or other foreign matter, separated water, added colouring and flavouring matters and mineral oil. However, it may contain food additives permitted in these Regulations and Appendices.

It shall also conform to the following standards, namely :—

(a) Butyro-refractometer reading at 40°C,	43.7-51.6
or Refractive Index at 40°C	1.4550 to 1.4604
(b) Saponification value	185-198
(c) Unsaponifiable matters	Not more than 1.5 per cent by weight
(d) Iodine value (wijs)	32-57
(e) Acid value	Not more than 0.5
(f) Flash Point	
Pensky-Martens (closed) method	Not more than 250°C

Test for argemone oil shall be negative.

9. Dhupa Fat means the fat obtained from clean and sound seed kernels of Dhupa, also known as Indian Copal (*Vateria Indica* Linn) tree by process of expression or by a process of solvent extraction from cake or kernel. It shall be refined. The fat shall be clear on melting and free from rancidity, adulterants, sediment, suspended or other foreign matter, separated water, added colouring and flavouring matter and mineral oil. However, it may contain food additives permitted in these Regulations and Appendices

It shall also conform to the following standards, namely :—

(a) Butyro-refractometer reading at 40°C,	47.5-49.5
or Refractive Index at 40°C	1.4576 to 1.4590
(b) Saponification value	187-192
(c) Unsaponifiable matters	Not more than 1.5 per cent by weight.
(d) Iodine value (wijs)	36-43
(e) Acid value	Not more than 0.5
(f) Flash Point	Not less than 250°C

Penske-Martens (closed) method

Test for argemone oil shall be negative.

10. Phulwara Fat means the fat obtained from clean and sound seed kernels of Phulwara [variously named *Aisandra Butyrace* (Roxb) *Baelni*, *Madhuca Butyracea* or *Bassia Butyracea*] by a process of expression or by a process of solvent extraction from cake or Kernel. It shall be refined. The fat shall be clear on melting and shall be free from rancidity, adulterants sediments, suspended on other foreign matters, separated water, added colouring and flavouring substances and mineral oil. However, it may contain food additives permitted in these Regulations and Appendices.

It shall also conform to the following Standards, namely :—

(a) Butyro-refractometer reading at 40°C,	48.6-51.0
or Refractive Index at 40°C	1.4584 to 1.4600
(b) Saponification value	192.5-199.4
(c) Unsaponifiable matters	Not more than 1.5 per cent by weight.
(d) Iodine value (wijs)	43.8-47.4
(e) Acid value	Not more than 0.5
(f) Flash Point	
Penske-Martens (closed) method	Not less than 250°C

Test for argemone oil shall be negative.



**MARGARINE AND FATSPREADS:**

1. Table margarine means an emulsion of edible oils and fats with water. It shall be free from rancidity, mineral oil and animal body fats. It may contain common salt not exceeding 2.5 per cent, skimmed milk powder not exceeding 2 per cent; it may contain food additives permitted in these Regulations and Appendices. It shall conform to the following specifications, namely:—

Fat	Not less than 80 per cent mass/mass
Moisture	Not less than 12 per cent and not more than 16 per cent mass/ mass.
Vitamin A	Not less than 30 I.U. per gram of the product at the time of sale.
Melting point of extracted fat (Capillary Slip Method)	31°C to 37°C
Unsaponifiable matter of extracted fat	Not more than 1.5 per cent by weight extracted fat.
Free fatty acids (as oleic acid) of extracted fat	Not more than 0.25 per cent by weight
OR	
Acid Value	Not more than 0.5

It shall contain not less than 5.0 percent of its weight of Til oil but sufficient to ensure that when separated fat is mixed with refined groundnut oil in the proportion of 20:80 the red colour produced by the Baudouin test shall not be lighter than 2.5 red units in 1 cm cell on a lovibond scale.

Provided that such coloured and flavoured margarine shall also contain starch not less than 100 ppm and not more than 150 ppm.

Provided further that such coloured and flavoured margarine shall only be sold in sealed packages weighing not more than 500gms.

Test for Argemone oil shall be negative

2. Bakery and Industrial Margarine- means an emulsion of vegetable oil product with water. It shall be free from added colour and flavour, rancidity, mineral oil and animal body fats. It may contain common salt not exceeding 2.5 percent. However, it may contain food additives permitted in these Regulations and Appendices. It shall conform to the following standards, namely:—

Fat	Not less than 80 per cent m/m.
Moisture	Not less than 12 per cent and Not more than 16 per cent m/m.
The separated fat of the products shall conform to the following :—	
(i) Vitamin A	Not less than 30 IU per gram at the time of packaging and shall show a positive test for Vitamin 'A' when tested by Antimony trichloride (carrprice) reagents (as per IS 5886-1970).
(ii) Melting point by Capillary slip method	31°C - 41°C
(iii) Unsaponifiable matter	Not exceeding 2.0 per cent but in case of the products where proportion of Rice bran oil is more than 30 per cent by wt. the unsaponifiable matter shall be not more than 2.5 per cent by wt. provided quantity of Rice bran oil is declared on the label of such product as laid down in Regulation 2.4.5 (34) of Food Safety and Standards (Food Products Standards and Food Additive) Regulations, 2011.
(iv) Free Fatty Acid calculated as Oleic acid or Acid value	Not more than 0.25 per cent. Not more than 0.5.

It shall contain raw or refined sesame oil (Til oil) in sufficient quantity so that when the product is mixed with refined groundnut oil in the proportion of 20 : 80, the colour produced by the Boudouin test shall not be lighter than 2.0 red unit in a 1 cm. cell on a Lovibond scale.

Test for argemone oil shall be negative.

3. Fat spread means a product in the form of water in oil emulsion, of an aqueous phase and a fat phase of edible oils and fats excluding animal body fats. The individual oil and fat used in the spread shall conform to the respective standards prescribed by these regulations.

Fat spread shall be classified into the following three groups:—

S.No	Types	Characteristics
(a)	Milk fat spread	Fat content will be exclusively milk fat.
(b)	Mixed fat spread	Fat content will be a mixture of milk fat with any one or more of hydrogenated, unhydrogenated refined edible vegetable Oils or interesterified fat.
(c)	Vegetable fat spread	Fat content will be a mixture of any two or more of hydrogenated, unhydrogenated refined vegetable oils or interesterified fat.

The fat content shall be declared on the label. In mixed fat spread, the milk fat content shall also be declared on the label alongwith the total fat content.

The word 'butter' will not be associated while labelling the product.

It may 'contain' edible common salt not exceeding 2 per cent by weight in aqueous phase; milk solid not fat: It may contain food additives permitted in these Regulations and Appendices. It shall be free from animal body fat, mineral oil and wax. Vegetable fat spread shall contain raw or refined Sesame oil (Til oil) in sufficient quantity so that when separated fat is mixed with refined groundnut oil in the proportion of 20:80 the red colour produced by Baudouin test shall not be lighter than 2.5 red units in 1 cm cell on a Lovibond scale.

It shall also conform to the following standards, namely:—

- |       |  |  |
|-------|--|--|
| (i)   | Fat  | Not more than 80 per cent and not less than 40 per cent by weight.   |
| (ii)  | Moisture   | Not more than 56 per cent and not less than 16 per cent by weight.   |
| (iii) | Melting point of Extracted fat (capillary slip method) in case of vegetable fat spread | Not more than 37°C   |
| (iv)  | Unsaponifiable matter of extracted fat   |  |
|       | (a) In case of milk fat and mixed fat spread   | Not more than 1 per cent by weight   |
|       | (b) In case of vegetable fat spread  | Not more than 1.5 per cent   |
|       | (c) Acid value of extracted fat  | Not more than 0.5  |
| (v)   | The vegetable fat spread shall contain   | Not less than 25 IU synthetic vitamin 'A' per gram at the time of packing and shall show a positive test for vitamin 'A' when tested by Antimony Trichloride (Carr-Price) reagents (as per I.S. 5886 - 1970)". |
| (vi)  | It shall contain Starch  | Not less than 100 ppm and<br>Not more than 150 ppm   |

It shall be compulsorily sold in sealed packages weighing not more than 500g. under Agmark certificate mark.

#### **HYDROGENATEDVEGETABLE OILS**

1. Vanaspati means any refined edible vegetable oil or oils, subjected to a process of hydrogenation in any form. It shall be prepared by hydrogenation from groundnut oil, cottonseed oil and sesame oil or mixtures thereof or any other harmless vegetable oils allowed by the government for the purpose. Refined sal seed fat, if used, shall not

be more than 10 per cent of the total oil mix. Vanaspati shall be prepared from one or more of the following vegetable oils:

- a. Coconut oil
- b. Cotton-seed oil
- c. Dhupa fat
- d. Groundnut oil
- e. Kokum fat
- f. Linseed oil
- g. Mahua oil
- h. Maize (Corn) oil
- i. Mango kernel fat
- j. Mustard/Rape-seed oil
- k. Niger-seed oil
- l. Palm oil
- m. Phulwara fat
- n. Rice bran oil
- o. safflower (Kariseed) oil
- p. Salseed oil (up to 10%)
- q. Sesame oil
- r. Soyabean oil
- s. Sunflower oil
- t. Watermelon seed oil
- u. Vegetable oils imported for edible purposes:

It shall conform to the standards specified below:—

- (i) It shall not contain any harmful colouring, flavouring or any other matter deleterious to health;
- (ii) No colour shall be added to hydrogenated vegetable oil unless so authorised by Government, but in no event any colour resembling the colour of ghee shall be added;
- (iii) If any flavour is used, it shall be distinct from that of ghee in accordance with a list of permissible flavours and in such quantities as may be prescribed by Government:

Provided that diacetyl to the extent of not more than 4.0 p.p.m. may be added to Vanaspati exclusively meant for consumption by the Armed Forces;

- (iv) The product on melting shall be clear in appearance and shall be free from staleness or rancidity, and pleasant to taste and smell;

(v) It shall contain raw or refined sesame (til) oil in sufficient quantity so that when the vanaspati is mixed with refined groundnut oil in the proportion of 20:80, the colour produced by the Baudouin test shall not be lighter than 2.0 red units in a 1 cm. cell on a Lovibond scale;

(vi) No anti-oxidant, synergist, emulsifier or any other substance shall be added to it except with the prior sanction of the Authority.

Provided that imported crude palm oil and fractions thereof shall not be used by the producers other than those who are engaged in manufacture of vanaspati/any other hydrogenated oil produce and are equipped in the same location with the facilities for generation of hydrogen gas and hydrogenation of the said imported crude palm oil and fractions thereof with the gas so generated in the manufacture of vanaspati/any other hydrogenated vegetable oil product for edible consumption.

- (vii) The product shall conform to the following requirements:

- a) Moisture, percent by mass: Not more than 0.25
- b) Melting point as determined by capillary slip method shall be from 31- 410C both inclusive
- c) it shall not have unsaponifiable matter exceeding 2.0 percent but in case of vanaspati where proportion of rice bran oil is more than 30 percent by weight, the unsaponifiable matter shall not be more than 2.5 percent by weight provided quantity of rice bran is declared on the label of such vanaspati as laid down in regulation 2.4.2(8) of packaging and labeling regulations
- d) Free fatty acid (as oleic acid), percent by mass: Not more than 0.25
- e) Synthetic Vitamin 'A': Not less than 25.0 International units (IU) per gram at the time of packing and shall test positive when tested with Antimony Trichloride (carr-Price Reagent) as per IS:5886-1970
- f) Residual Nickel: Not more than 1.5 ppm
- g) Test for argemone oil shall be negative.

2. Bakery shortening means vanaspati meant for use as a shortening or leavening agent in the manufacture of bakery products, that is, for promoting the development of the desired cellular structure in the bakery product with an accompanying increase in its tenderness and volume; this will also conform to the standards prescribed in regulation 2.2.6 (1) excepts that—

- (a) the melting point as determined by the capillary slip method shall not exceed 41°C.
- (b) if aerated, only nitrogen, air or any other inert gas shall be used for the purpose and the quantity of such gas incorporated in the product shall not exceed 12 per cent by volume thereof.
- (c) it may contain added mono-glycerides and diglycerides as emulsifying agents.

Test for argemone oil shall be negative.

#### : FRUIT & VEGETABLE PRODUCTS

##### : Thermally Processed Fruits

###### 1. Thermally Processed Fruits

(Canned/Bottled/Flexible packaged/Aseptically packed) means the products obtained from sound, matured, dehydrated, fresh or frozen, peeled or un-peeled, previously packed, whole, halves or cut pieces of fruits packed with any suitable packing medium and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. It may contain water, fruit juice, dry or liquid nutritive sweeteners, spices and condiments and any other ingredients suitable to the product. The packing medium alongwith its strength shall be declared on the label.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B. Drained weight of fruits shall be not less than the weight given below:-

- (i) Liquid pack Not less than 50.0 percent of net weight of the contents
- (ii) Solid Pack Not less than 70.0 percent of net weight of the contents

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

##### : Thermally Processed Fruit Cocktail / Tropical Fruit Cocktail

1. Thermally Processed Fruit Cocktail / Tropical Fruit Cocktail (Canned, Bottled, Flexible Pack And / Or Aseptically Packed) means the product prepared from a mixture of fruits which shall be declared on the label. Such fruits may be fresh, frozen, dehydrated or previously processed. The fruit mixture may be packed with any suitable packing medium and processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage. The packing medium alongwith its strength when packed shall be declared on the label.

2. The name of the fruits used in the product and prepared in any style shall be declared on the label alongwith the range of percentage of each fruit used in the product. The drained weight of fruits shall be not less than the weight given below:—

- (a) Liquid pack 50.0 percent of net weight of contents
- (b) Solid Pack 70.0 percent of net weight of contents

3. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Vegetables

1. Thermally Processed Vegetables (Canned, Bottled/Flexible pack / Aseptically Packed) means the product obtained from fresh, dehydrated or frozen vegetables either singly or in combination with other vegetables, peeled or un-peeled, with or without the addition of water, common salt and nutritive sweeteners, spices and condiments or any other ingredients suitable to the product, packed with any suitable packing medium appropriate to the product processed by heat, in an appropriate manner, before or after being sealed in a container so as to prevent spoilage. The packing medium alongwith its strength shall be declared on the label. The product may be prepared in any suitable style appropriate to the product. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B. The name of the vegetables used in the product and prepared in any style shall be declared on the label alongwith the range of percentage of each vegetable used in the product. Drained weight of vegetables shall be not less than the weight given below:—

- (i) Liquid Pack
  - (a) Mushroom 50.0 percent of net weight of contents
  - (b) Green beans, carrots, peas, sweet corn/ baby corn 50.0 percent of net weight of contents
  - (c) Mushroom Packed in sauce 25.0 percent of net weight of contents
  - (d) Other Vegetables 50.0 percent of net weight of contents
- (ii) Solid Pack 70.0 percent of net weight of contents

2. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Curried Vegetables / Ready to Eat Vegetables

1. Thermally Processed Curried Vegetables / Ready to Eat Vegetables means the product prepared from fresh, dehydrated or frozen or previously processed vegetables, legumes, cereals or pulses, whether whole or cut into pieces. The vegetable(s), either singly or in combination, may be prepared in any suitable style applicable for the respective vegetable in normal culinary preparation. It may contain salt, nutritive sweeteners, spices and condiments, edible vegetable oils and fats, milk fat and any other ingredients suitable to the product and processed by heat, in an appropriate manner, before or after being- in a container, so as to prevent spoilage.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Vegetable soups

1. Thermally Processed Vegetable Soups (Canned, Bottled, flexible pack And/ Or Aseptically Packed) means unfermented but fermentable product, intended for direct consumption, prepared from juice/ pulp/puree of sound, mature vegetables, fresh, dehydrated, frozen or previously processed, singly or in combination, by blending with salt, nutritive sweeteners, spices and condiments and any other ingredients suitable to the product, cooked to a suitable consistency and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. It may be clear, turbid or cloudy.

2. The product shall have total soluble solids (m/m) not less than 5.0 percent except for tomato soup where it shall be not less than 7.0 percent (w/ w).

3. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Fruits Juices

1. Thermally Processed Fruits Juices (Canned, Bottled, Flexible And/Or Aseptically Packed) means unfermented but fermentable product, pulpy, turbid or clear, intended for direct consumption obtained by a mechanical process from sound, ripe fruit or the flesh thereof and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. The juice may have been concentrated and later reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juice. It may contain salt. One or more of the nutritive sweeteners may be added in amounts not exceeding 50 g/kg but not exceeding 200g/kg in very acidic fruits except in case of Apple Juice, Orange Juice (reconstituted from concentrate), Grape Juice, Pineapple Juice (reconstituted from concentrate). The product is not required to be called sweetened juice till the added nutritive sweeteners are not in excess of 15g/kg.

2. The product may contain food additives permitted in these Regulations and Appendices. The product shall conform to the microbiological requirements given in Appendix B.

The product shall meet the following requirements:—

FRUIT JUICES

1	TSS Min( %)	Acidity expressed as Citric Acid Max.(%)
1	2	3
1. Apple Juice	10	3.5 (as malic acid)
2. Orange Juice		
(a) Freshly expressed	10	3.5
(b) Reconstituted from concentrate	10	3.5
3. Grape Fruit Juice	9	-
4. Lemon juice	6	4.0(minimum)
5. Lime juice	-	5.0(minimum)
6. Grape Juice		
(a) Freshly expressed	15	3.5
(b) Reconstituted from concentrate	15	3.5
7. Pineapple Juice		
(a) Freshly expressed	10	3..5
(b) Reconstituted from concentrate	10	3.5
8. Black Currant	11	3.5
9. Mango, Guava or any other pulp fruit	15	3.5P
10. Other fruit juices of single species- not very acidic	10	3.5
11. Other fruit juices of single species- very acidic	10	3.5
12. Other fruit juices of single species or combination thereof - not very acidic	10	3.5
13. Other fruit juices of single species or combination thereof - very acidic	10	3.5

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Thermally Processed Vegetable Juices

1. Thermally Processed Vegetable Juices (Canned, Bottled, Flexible Pack And/Or Aseptically Packed) means the unfermented but fermentable product or may be lactic acid fermented product intended for direct consumption obtained from the edible part of one or more vegetables, including roots, and tubers (e.g. carrots, garlic) stems and shoots (e.g. Asparagus), leaves and flowers (e.g. spinach and cauliflower) and legumes (e.g. peas) singly or in combination, may be clear, turbid or pulpy, may have been concentrated & reconstituted with water suitable for the purpose of maintaining the essential composition & quality factors of the juice and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. It may contain salt, nutritive sweeteners, spices and condiments, vinegar, whey or lactoserum having undergone lactic acid fermentation not more than 100 gm/kg and any other ingredients suitable to the product.

2. The product shall have total soluble solids free of added salts not less than 5.0 percent (w/w).

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Thermally Processed Tomato Juice:

1. Thermally Processed Tomato Juice means the unfermented juice obtained by mechanical process from tomatoes (*Lycopersicon esculentus* L) of proper maturity and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage. The juice may have been concentrated and reconstituted with water for the purpose of maintaining the essential composition and quality factors of the juice. The product may contain salt and other ingredients suitable to the product. The product shall be free from skin, seeds and other coarse parts of tomatoes. The product shall have pleasant taste and flavour characteristic of tomatoes free from off flavour and evidence of fermentation.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the requirements of Total Soluble Solids m/m free of added salt to be not less than 5.0 percent.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Thermally Processed Fruit Nectars:

1. Thermally Processed Fruit Nectars (Canned, Bottled, Flexible Pack And / Or Aseptically Packed) means an unfermented but fermentable pulpy or non-pulpy, turbid or clear product intended for direct consumption made from fruit singly or in combination, obtained by blending the fruit juice / pulp/fruit juice concentrate and/ or edible part of sound, ripe fruit(s), concentrated or unconcentrated with water, nutritive sweeteners and any other ingredient appropriate to the product and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. Lemon and Lime juice may be added as an acidifying agent in quantities which would not impair characteristic fruit flavour of the fruit used. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

	<i>TSS Min( %)</i>	<i>Min. Fruit Juice Content (%)</i>	<i>Acidity Expressed as Citric Acid Max (%)</i>
<b>NECTARS OF CITRUS JUICE</b>			
Orange Nectar	15	40	1.5
Grape Fruit Nectar	15	20	1.5
Pineapple Nectar	15	40	1.5
Mango Nectar	15	20	1.5
Guava Nectar	15	20	1.5
Peach Nectar	15	20	1.5
Pear Nectar	15	20	1.5
Apricot Nectar	15	20	1.5
Non-pulpy Black Currant Nectar	15	20	1.5
Other Fruit Nectar	15	20	1.5
Other Fruit Nectars of High Acidity/Pulpy / Strong flavour	15	20	1.5
Mixed Fruit Nectar	15	20	1.5

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Fruit Beverages / Fruit Drink/ Ready to Serve Fruit Beverages

1. Thermally Processed Fruit Beverages / Fruit Drink/ Ready to Serve Fruit Beverages (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means an unfermented but fermentable product which is prepared from juice or Pulp/Puree or concentrated juice or pulp of sound mature fruit. The substances that may be added to fruit juice or pulp are water, peel oil, fruit essences and flavours, salt, sugar, invert sugar, liquid glucose, milk and other ingredients appropriate to the product and processed by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall meet the following requirements:—

- |  |                            |
|--|----------------------------|
| (i) Total Soluble solid (m/m)          | Not less than 10.0 percent |
| (ii) Fruit juice content (m/m)         |                            |
| (a) Lime/Lemon ready to serve beverage | Not less than 5.0 percent  |
| (b) All other beverage/drink           | Not less than 10.0 percent |

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

: Thermally Processed Mango Pulp / Puree and Sweetened Mango Pulp / Puree

1. Thermally Processed Mango Pulp / Puree and Sweetened Mango Pulp / Puree (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means unfermented but fermentable product intended for direct consumption obtained from edible portion of sound, ripe mangoes (*Mangifera indica*.L.), by sieving the prepared fruits, where as, the puree is obtained by finely dividing the pulp by a finisher or other mechanical means and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. It may contain one or more nutritive sweeteners in amounts not exceeding 50 gm/ kg. However, the product shall be described as sweetened Mango pulp/ puree if the amount of nutritive sweeteners is in excess of 15 gm / kg.



3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- |                                      |                            |
|--------------------------------------|----------------------------|
| (i) Total Soluble Solids (m/m)       |                            |
| (a) Sweetened                        | Not less than 15.0 percent |
| (b) Unsweetened (Natural Mango Pulp) | Not less than 12.0 percent |
| (ii) Acidity as Citric Acid          | Not less than 0.3 percent  |
| (For sweetened canned mango pulp)    |                            |

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

**Thermally Processed Fruit Pulp / Puree And Sweetened Fruit Pulp / Puree other than Mango**

1. Thermally Processed Fruit Pulp / Puree And Sweetened Fruit Pulp / Puree other than Mango (Canned, Bottled, Flexible Pack And / Or Aseptically Packed) means unfermented but fermentable product intended for direct consumption obtained from edible portion of sound, ripe fruit of any suitable kind & variety by sieving the prepared fruits, where as, the puree is obtained by finely dividing the pulp by a finisher or other mechanical means and processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. It may contain one or more nutritive sweeteners in amounts not exceeding 50 gm/Kg. However, the product shall be described as sweetened pulp/puree if the amount of nutritive sweeteners is in excess of 15 gm. /kg.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:-

- |   |                           |
|---|---------------------------|
| (i) Total Soluble Solids (m/m) exclusive of added sugar | Not less than 6.0 percent |
| (ii) Acidity as Citric Acid                             | Not less than 0.3 percent |

The container shall be filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

**Thermally Processed Concentrated Fruit / Vegetable Juice Pulp/ Puree**

1. Thermally Processed Concentrated Fruit / Vegetable Juice Pulp/ Puree (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means the unfermented product which is capable of fermentation, obtained from the juice or pulp or puree of sound, ripe fruit(s) / vegetable(s), from which water has been removed to the extent that the product has a total soluble content of not less than double the content of the original juice/ pulp/ puree prescribed vide in regulation 2.3.6 and 2.3.7. Natural volatile components may be restored to the concentrates where these have been removed. It may be pulpy, turbid or clear and preserved by heat, in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

**Thermally Processed Tomato Puree And Paste**

1. Thermally Processed Tomato Puree And Paste (Canned, Bottled, Flexible Pack And/ Or Aseptically Packed) means unfermented product which is capable of fermentation, obtained by concentrating the juice of sound ripe tomatoes to the desired concentration. It may contain salt and other ingredients suitable to the products.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

<i>S.No</i>	<i>Product</i>	<i>Total Soluble Solids (w/w)</i>
1	Tomato puree	Not less than 9.0 percent
2	Tomato Paste	Not less than 25 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Soup Powders:

1. Soup Powders means the products obtained by mechanical dehydration of fresh vegetables/ fruits juice/ pulp/puree of sound, vegetables / fruits and or earlier concentrated, dehydrated, frozen or processed fruits & vegetables, singly or in combination by blending with salt, nutritive sweeteners, spices and condiments and any other ingredients suitable to the product, as appropriate to the product and packed suitably to prevent spoilage.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:—

- |      |  |                           |
|------|--|---------------------------|
| (i)  | Moisture (m/m)   | Not more than 5.0 percent |
| (ii) | Total soluble solids (m/m) (on dilution on ready to serve basis) | Not less than 5.0 percent |

#### Fruit/Vegetable Juice / Pulp/ Puree With Preservatives For Industrial Use only:

1. Fruit/Vegetable Juice / Pulp/ Puree With Preservatives For Industrial Use only means an unfermented but fermentable product, pulpy, turbid or clear, obtained by a mechanical process from sound ripe fruits/ vegetables.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Concentrated Fruit Vegetable Juice /Pulp / Puree With Preservatives For Industrial Use Only:

1. Concentrated Fruit Vegetable Juice /Pulp / Puree With Preservatives For Industrial Use Only means an unfermented product, which is capable of fermentation, obtained from the juice or pulp or puree of fruit(s) / vegetable (s), from which the water has been removed to the extent that the product has a soluble solids content of not less than double the content of the original juice, pulp, puree prescribed under Regulation 2.3.6 and Regulation 2.3.7. It may be pulpy, turbid or clear.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Tamarind Pulp/Puree and Concentrate:

1. Tamarind Pulp/Puree And Concentrate means the unfermented product which is capable of fermentation, obtained from fresh or dried tamarind, by boiling with water and sieving it, and preserved either by thermal processing or by using permitted preservatives.

2. The Tamarind Concentrate is the product obtained from tamarind pulp/ puree from which water has been removed by evaporation to achieve appropriate concentration.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

	Minimum TSS Percent	Minimum Acidity Percent	Ash Insoluble in dilute HCl Percent (Maximum)
Tamarind Pulp/Puree	32	4.5	0.4
Tamarind Concentrate	65	9.0	0.8

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

**Fruit Bar/ Toffee:**

1. Fruit Bar/ Toffee means the product prepared by blending Pulp/Puree from sound ripe fruit, fresh or previously preserved, nutritive sweeteners, butter or other edible vegetable fat or milk solids and other ingredients appropriate to the product & dehydrated to form sheet which can be cut to desired shape or size.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:—

(i) Moisture (m/m)	Not more than 20.0 percent
(ii) Total soluble solids (m/m)	Not less than 75.0 percent
(iii) Fruit content (m/m)	Not less than 25.0 percent

**Fruit/Vegetable, Cereal Flakes:**

1. Fruit/Vegetable, Cereal Flakes means the product prepared by blending fruit(s) Pulp/Puree of sound ripe fruit(s) / vegetables of any suitable variety, fresh, frozen or previously preserved, starch, cereals & nutritive sweeteners, other ingredients appropriate to the product with or without salt & dehydrated in the form of flakes.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:—

(i) Moisture (m/m)	Not more than 6.0 percent
(ii) Acid insoluble Ash (m/m)	Not more than 0.5 percent
(iii) Starch (m/m)	Not more than 25.0 percent

**Squashes, Crushes, Fruit Syrups/Fruit Sharbats and Barley Water:**

1. Squashes, Crushes, Fruit Syrups/Fruit Sharbats and Barley Water means the product prepared from unfermented but fermentable fruit juice/puree or concentrate clear or cloudy, obtained from any suitable fruit or several fruits by blending it with nutritive sweeteners, water and with or without salt, aromatic herbs, peel oil and any other ingredients suitable to the products.

Cordial means a clear product free from any cellular matter, obtained by blending unfermented but fermentable clarified fruit juice with nutritive sweeteners & water with or without salt and peel oil and any other ingredients suitable to the products.

Barley water means the product prepared from unfermented but fermentable fruit juice by blending it with nutritive sweeteners, water with or without salt and peel oil and barley starch not less than 0.25 percent and any other ingredient suitable to the product.

The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall comply with the following requirements:—

<i>Name of the products</i>	<i>Min (%) of fruit juice/ puree in the final product</i>	<i>Total Soluble Solids Min (%)</i>	<i>Acidity expressed as Citric Acid Max (%)</i>
(1) Squash	25	40	3.5
(2) Crush	25	55	3.5
(3) Fruit Syrup/Fruit Sharbats	25	65	3.5
(4) Cordial	25	30	3.5
(5) Barley Water	25	30	2.5

Any syrup/ sharbats containing a minimum of 10 percent of dry fruits shall also qualify to be called as fruits syrups.

The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Ginger Cocktail:

1. Ginger Cocktail (Ginger Beer Or Gingerale) means the product prepared by blending ginger juice or its oleoresin or essence with water and nutritive sweeteners.

2. The product shall be free from extraneous matter. When suitably diluted shall have the colour and flavour characteristic of the product.

3. The minimum total soluble solids shall not be less than 30.0 percent (m/ m).

4. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

5. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Synthetic Syrup for use in Dispensers for carbonated water:

1. Synthetic Syrup for use in Dispensers for carbonated water means carbonated water obtained by blending nutritive sweeteners with water and other ingredients appropriate to the product.

2. The total soluble solid content (m/m) of the product shall not be less than 30 percent. The product when suitably reconstituted shall conform to the requirements of carbonated water and match in all respects, except Carbon Dioxide contents, with similar product as bottled for direct consumption. It shall be free from extraneous matter.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### : SYNTHETIC SYRUP or SHARBAT

1. Synthetic syrup or sharbat means the syrup obtained by blending syrup made from sugar, dextrose or liquid glucose.

It may also contain fruit juice and other ingredients appropriate to the product. It shall be free from burnt or objectionable taints, flavours, artificial sweetening agents, extraneous matter and crystallization. It may contain citric acid, permitted colours, permitted preservatives and permitted flavouring agents. It shall also conform to the following standards namely:—

Total soluble solids Not less than 65 per cent by weight

#### Murabba

1. Murabba means the product, prepared from suitable, sound whole or cut grated fruits, rhizome or vegetables, appropriately prepared, suitable for the purpose, singly or in combination, by impregnating it, with nutritive sweeteners to a concentration adequate to preserve it.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following composition:

(i) Total soluble solids (m/m) Not less than 65.0 percent

(ii) Fruit contents (m/m) Not less than 55.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Candied, Crystallised And Glazed Fruit / Vegetable / Rhizome / Fruit Peel:

Candied Fruits / Vegetables/ Rhizome / Fruit Peel means the product prepared from sound and ripe fruits, vegetables, rhizomes or fruit peel, of any suitable variety, appropriately prepared, by impregnating it with nutritive sweeteners to a concentration adequate to preserve it.

Crystallised Fruit / Vegetable/ Rhizome / Fruit Peel means the product prepared from candied product by coating with pure crystallised sugar or by drying the syrup on wet candied fruit.

Glazed Fruit/ Vegetable/Rhizome / Fruit Peel means the product prepared from candied product by coating it with a thin transparent layer of heavy syrup with or without pectin which has dried to a more or less firm texture on the product.

The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

(i) The percentage of total sugar (w/w) Not less than 70.0

(ii) Percentage of reducing Sugar to total sugar Not less than 25.0

#### Tomato Ketchup and Tomato Sauce:

1. Tomato Ketchup and Tomato Sauce means the product prepared by blending tomato juice/Puree/Paste of appropriate concentration with nutritive sweeteners, salt, vinegar, spices and condiments and any other ingredients suitable to the product and heating to the required consistency. Tomato Paste may be used after dilution with water suitable for the purpose of maintaining the essential composition of the product.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

(i) Total Soluble solids (m/m) Not less than 25.0 percent

Salt free basis

(ii) Acidity as acetic acid Not less than 1.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Culinary Pastes / Fruits and Vegetable Sauces Other Than Tomato Sauce and Soya Sauce

1. Culinary Pastes / Fruits and Vegetable Sauces Other Than Tomato Sauce and Soya Sauce means a culinary preparation used as an adjunct to food, prepared from edible portion of any suitable fruit/vegetable including, roots, tubers & rhizomes, their pulps/purees, dried fruits, singly or in combination by blending with nutritive sweeteners, salt, spices and condiments and other ingredient appropriate to the product.

2. The product may contain food additives permitted in these regulations including Appendix A. It may contain caramel but shall not contain any other added colour whether natural or synthetic. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

<i>Name of the Product</i>	<i>Total Soluble Solids (Salt free basis) (m/m)</i>	<i>Acidity % (as acetic acid)</i>
(1) Chilli Sauce	Not less than 8.0 percent	Not less than 1.0 percent
(2) Fruits / Vegetable Sauces	Not less than 15.0 percent	Not less than 1.2 percent
(3) Culinary Paste/ Sauce	Not less than 8.0 percent	Not less than 1.0 percent
(4) Ginger Paste	Not less than 3.0 percent	Not less than 1.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Soyabean Sauce:

1. Soyabean Sauce means the product obtained from wholesome soyabeans, by fermenting the soyabean paste in which trypsin inhibitors have been inactivated & blending with salt, nutritive sweeteners. It may contain spices and condiments and other ingredients appropriate to the product preserved by using permitted preservative.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- |   |                            |
|---|----------------------------|
| (i) Total Soluble solids (m/m)<br>Salt free basis | Not less than 25.0 percent |
| (ii) Acidity as acetic acid                       | Not less than 0.6 percents |

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Carbonated Fruit Beverages or Fruit Drinks:

1. Carbonated Fruit Beverages or Fruit Drink means any beverage or drink which is purported to be prepared from fruit juice and water or carbonated water and containing sugar, dextrose, invert sugar or liquid glucose either singly or in combination. It may contain peel oil and fruit essences. It may also contain any other ingredients appropriate to the products.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- |                                |                            |
|--------------------------------|----------------------------|
| (i) Total Soluble solids (m/m) | Not less than 10.0 percent |
| (ii) Fruit content (m/m)       |                            |
| (a) Lime or Lemon juice        | Not less than 5.0 percent  |
| (b) Other fruits               | Not less than 10.0 percent |

3. The product shall have the colour, taste & flavour characteristic of the product & shall be free from extraneous matter.

4. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### :Jam

1. Jam means the product prepared from sound, ripe, fresh, dehydrated, frozen or previously packed fruits including fruit juices, fruit pulp, fruit juice concentrate or dry fruit by boiling its pieces or pulp or puree with nutritive sweeteners namely sugar, dextrose, invert sugar or liquid glucose to a suitable consistency. It may also contain fruit pieces and any other ingredients suitable to the products. It may be prepared from any of the suitable fruits, singly or in combination. It shall have the flavour of the original fruit(s) and shall be free from burnt or objectionable flavours and crystallization.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirement:—

Total soluble solids (m/m) Not less than 65.0 percent

3. The product shall be manufactured from not less than 45 percent, by weight, of original prepared, fruit, exclusive of any added sugar or optional ingredients of finished product except where fruit is strawberry or raspberry where it shall contain not less than 25 percent fruit.

**Fruit Jelly:**

1. Fruit Jelly means the product prepared by boiling fruit juice or fruit (s) of sound quality, with or without water, expressing and straining the juice, adding nutritive sweeteners, and concentrating to such a consistency that gelatinisation takes place on cooling. The product shall not be syrupy, sticky or gummy and shall be clear, sparkling and transparent.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

Total soluble solids (m/m) Not less than 65.0 percent

3. The product shall be manufactured from not less than 45 percent, by weight, of original prepared fruit, exclusive of any added sugar or optional ingredients of finished product.

**Fruit Cheese:**

1. Fruit Cheese means the product prepared from pulp/puree of sound, ripe fruit (s), whether fresh, frozen or previously preserved or dry fruits, by cooking with salt, nutritive sweeteners to attain a thick consistency so that it sets on cooling. Cheese shall be neither too soft nor too hard to chew. It may be prepared from any of the suitable fruits, singly or in combination. It shall have the flavour of the original fruit(s) and shall be free from burnt or objectionable flavours and crystallization.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirement:—

Total soluble solids (m/m) Not less than 65.0 percent

3. The product shall be manufactured from not less than 45 percent by weight, of original prepared fruit, exclusive of any added sugar or optional ingredients of finished product except where fruit is strawberry or raspberry where it shall contain not less than 25 percent fruit.

**Marmalades:**

1. Marmalades means a product prepared by boiling sound fruits with peel, pulp and Juice, with or without water, added nutritive sweeteners and concentrating to such a consistency that gelatinisation takes place on cooling of the product. It shall not be syrupy, sticky or gummy and shall be clear and transparent.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

(i) Total soluble solids (m/m) Not less than 65.0 percent

(ii) Fruit content except peel (m/m) Not less than 45.0 percent

(iii) Peel in suspension Not less than 5.0 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20 degree C which the sealed container is capable of holding when completely filled.

**Dehydrated Fruits:**

1. Dehydrated Fruits means the product, prepared from edible part of suitable variety of sound fruit, free from blemishes, insect or fungal infection, of appropriate maturity, from which, moisture has been removed, under controlled conditions of temperature, humidity and airflow, to the extent that the product is preserved.

2. It may be whole, sliced, quarters, pieces or powdered. The finished product shall have uniform colour and shall be free from extraneous matter. The product shall have moisture content not more than 20 percent m/m. When in powder form, it shall be free flowing and free from agglomerates.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.

#### Dehydrated Vegetables:

1. Dehydrated Vegetables means the product, prepared from edible portions of suitable variety of sound vegetable, free from insect or fungal infection, free from blemishes, suitably prepared, from which moisture has been removed under controlled conditions of temperature, humidity & airflow, to the extent that the product is preserved.

2. It may be whole, sliced, quarters, pieces, flakes, kibbled granules or powdered. The finished product shall have uniform colour and shall be free from discolouration due to scorching or enzymatic reaction. It shall be free from stalks, peels, stems and extraneous matter. When in powder form, it shall be free flowing and free from agglomerates.

3. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the requirements as given in the Table below

S. No.	Name of Vegetables	Moisture not more than (percent)	Sulphur Dioxide not more than (PPM)	Total ash not more than ( percent )	Ash insoluble dilute HCl not more than (percent)	Peroxidase Test
1.	Green Leafy Vegetables	7	2000 ppm	-	-	Negative
2.	(a) Tubers like Arvi (b) Lotus Root Tapioca (c) Yam (d) Carrot (e) Potato	7	2000 ppm	-	-	Negative
3.	Karela	6	-	-	-	Negative
4.	Cabbage	6	2000 ppm	-	-	Negative
5.	Okra	8	2000 ppm	-	-	Negative
6.	Other Vegetables	8	2000 ppm	5	0.5	Negative
7.	Powders of onion and Garlic	5	-	5	0.5	Negative
8.	Powders of other vegetables including tomatoes	5	2000 ppm	5	0.5	Negative

#### Frozen Fruits/Fruit Products:

1. Frozen Fruits/Fruit Products means the product frozen in blocks or individually quick frozen and offered for direct consumption, if required. Frozen Fruits/Fruit products are prepared from fresh, clean, sound, whole, fruits of suitable maturity, free from insect or fungal infection, which are washed, sufficiently blanched to inactivate enzymes, if required, and are subjected to a freezing process in appropriate equipment. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal stabilization. It may be prepared in any style appropriate for the respective Fruits/Fruit product in normal culinary preparation. It may contain salt, nutritive sweeteners, milk solids, spices and condiments and any other ingredient suitable to the product.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B.



**Frozen Vegetables:**

1. Frozen Vegetables means the product frozen in blocks or individually quick frozen and offered for direct consumption, if required. Frozen vegetables are prepared from sound, clean vegetables of suitable maturity, free from insect or fungal infection, which are washed, sufficiently blanched to inactivate enzymes and are subjected to a freezing process in appropriate equipment. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal stabilization. It may be prepared in any style appropriate for the respective vegetable in normal culinary preparation. It may contain salt, nutritive sweeteners, milk solids, spices and condiments and any other ingredient suitable to the product.

2. It shall have normal colour characteristic of the individual Vegetable. It shall have taste & flavour characteristic of the kind & variety of the vegetable used & shall be free from sand, grit & other foreign matter.

3. The product shall test negative for peroxidase. The product shall conform to the microbiological requirements given in Appendix B.

**Frozen Curried Vegetables/Ready-to-Eat Vegetables:**

1. Frozen Curried Vegetables/Ready-to-Eat Vegetables means the product prepared from Fresh, Dehydrated or Frozen or previously processed vegetables, legumes, cereals or pulses, whether whole or cut into pieces. Vegetable(s) either singly or in combination may be prepared in any suitable style applicable for the respective vegetables in normal culinary preparation. It may contain salt, nutritive sweeteners, spices and condiments, edible vegetable oils and fats and milk fat and any other ingredients suitable to the product and subjected to freezing process in appropriate equipments. Freezing operation shall not be regarded as complete unless and until the product temperature has reached (minus) - 18°C at the thermal center after thermal sterilization.

2. The product shall conform to the microbiological requirements given in Appendix B.

**Fruit Based Beverage Mix/Powdered Fruit Based Beverage:**

1. Fruit Based Beverage Mix/Powdered Fruit Based Beverage means a product, in powder form, intended for use after dilution, obtained by blending fruit solids with nutritive sweeteners and other ingredients appropriate to the product & packed in hermetically sealed containers to prevent spoilage. It shall have colour & flavour characteristic of the named fruit. It may contain Vitamins and Minerals.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- |  |                           |
|--|---------------------------|
| (i) Moisture (m/m)   | Not more than 5.0 percent |
| (ii) Fruit juice content (m/m) when reconstituted by dilution according to direction for use | Not less than 5.0 percent |

**Fruits and Vegetable Chutney:**

1. Fruits and Vegetable Chutney means the product prepared from washed, clean, sound raw fruit(s) and / or vegetable(s) of any suitable variety, which have been peeled, sliced or chopped or shredded or comminuted and cooked with nutritive sweetener. It may contain salt, spices and condiments and any other ingredients suitable to the product and preserved by thermal processing or other means.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- |  |                            |
|--|----------------------------|
| (i) Total soluble solids (m/m)               |                            |
| (a) Fruit Chutney                            | Not less than 50.0 percent |
| (b) Vegetable Chutney                        | Not less than 25.0 percent |
| (c) Hot and Sour (Spicy Chutney)             | Not less than 25.0 percent |
| (ii) Fruits and Vegetable content (m/m)      | Not less than 40.0 percent |
| (iii) pH                                     | Not more than 4.6          |
| (iv) Total ash (m/m)                         | Not more than 5.0 percent  |
| (v) Ash insoluble in hydrochloric acid (m/m) | Not more than 0.5 percent  |

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled. This requirement shall not be applicable for bulk packs for industrial use.

#### Mango Chutney:

1. Mango Chutney means the product prepared from washed clean sound mango (*Mangifera indica* L.) of any suitable variety, which have been peeled, sliced or chopped or shredded or comminuted and cooked with nutritive sweeteners. It may contain Salt, Spices, Condiments and any other ingredient suitable to the product and preserved by thermal processing/ or other means.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

(i) Total Soluble solids (m/m)	Not less than 50.0 percent
(ii) Fruit content (m/m)	Not less than 40.0 percent
(iii) pH	Not more than 4.6
(iv) Total ash	Not more than 5.0 percent
(v) Ash insoluble in hydrochloric acid	Not more than 0.5 percent

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

#### Pickles:

1. Pickles means the preparation made from fruits or vegetables or other edible plant material including mushrooms free from insect damage or fungal infection, singly or in combination preserved in salt, acid, sugar or any combination of the three. The pickle may contain onion, garlic, ginger, sugar jaggery, edible vegetable oil, green or red chillies, spices, spice extracts/oil, limejuice, vinegar/ acetic acid, citric acid, dry fruits and nuts. It shall be free from copper, mineral acid, alum, synthetic colours and shall show no sign of fermentation.

2. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. Pickles may be of combinations as given below:—

(i) Pickles in Citrus juice or Brine conforming to the following requirements:—

(a) Drained Weight	Not less than 60.0 percent
(b) Sodium Chloride content when packed in Brine	Not less than 12.0 percent
(c) Acidity as Citric Acid when packed In Citrus Juice	Not less than 1.2 percent

(ii) Pickles in Oil

(a) Drained Weight	Not less than 60.0 percent
(b) Fruit and Vegetable pieces shall be practically remaining submerged in oil	

(iii) Pickles in Vinegar

(a) Drained Weight	Not less than 60.0 percent
(b) Acidity of vinegar as acetic acid	Not less than 2.0 percent

(iv) Pickle without medium means the pickles other than enumerated above. This may contain ingredients given in Para 1 of this specification. Such pickles shall be labelled as "(give name of vegetable or fruits) Pickle".

#### Table Olives:

1. Table Olives means the product obtained from sound clean fruits of proper maturity from Olive tree (*Olea europaea sativa* Hoff of link) and suitably processed and preserved by natural fermentation / thermal processing or by addition of preservative. The product may be in the form of green olives, olives turning colour before complete ripeness or black olives and may be whole, stoned (pitted) stuffed, halved, quartered, sliced, chopped, minced or in

broken form. The product may contain water, common salt, vinegar, olive oil, nutritive sweeteners and stuffing material pimiento, onion, almond, celery, anchovy, olive, orange or lemon peel, hazelnut capers etc singly or in combination or in the form of a paste, spices, spice extracts and aromatic herbs. The product shall be of uniform colour except seasoned olives and olives turning colour free from any foreign matter, off flavour and taste and abnormal fermentation. The product may contain food additive permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall conform to the following requirements:—

<i>Product in brine</i>	<i>Sodium Chloride in brine</i>	<i>PH of brine</i>	<i>Acidity of brine as lactic acid</i>
(A) Green olives treated /untreated	-	-	—
(i) in hermetically sealed containers	Not less than 5.0 percent	Not more than 4.0	—
(ii) in non hermetically sealed containers	Not less than 6.0 percent	Not more than 4.5	—
(iii) with natural lactic fermentation	-	-	Not less than 0.4 Percent
(B) Seasoned green olives	-	-	—
(i) in hermetically sealed containers	Not less than 4.0 percent	Not more than 4.0	—
(ii) in non hermetically sealed containers	Not less than 6.0 percent	Not more than 4.5	—
(C) Olives turning colour - all Treatments	Not less than 6.0 percent	-	—
(D) Black Olives			
(i) In brine	Not less than 7.0 percent	-	—
(ii) in dry salt	Not less than 10.0 percent	-	—
(E) Damaged matter		Not more than 2.0 percent by count	
(F) Insect damaged Units		Not more than 2.0 percent by count	
(G) Foreign matter		Not more than 1 unit per kg	

Explanations:- For the purpose of this paragraph,—

'Damaged Units' mean units showing imperfection or damage to the mesocarp which may or may not be associated with superficial marks;

'Insect Damaged Units' means units showing insect holes or deformed fruits or those with abnormal stains or whose mesocarp has an abnormal aspect;

'Foreign matter' means any vegetable matter not injurious to health such as leaves, stem etc.

#### Grated Desiccated Coconut:

1. Grated Desiccated Coconut means the product obtained by peeling, milling and drying the kernel of coconut (*cocos nucifera*). The product may be in the form of thin flakes, chips or shreds. The product shall be white in colour free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have pleasant taste and flavour, free from rancidity and evidence of fermentation. The product may contain food additives permitted in these regulations including Appendix A. The products shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following requirements:—

(i) Extraneous Vegetable matter	Not more than 15 units/100 gm
(ii) Moisture (m/m)	Not more than 3.0 percent
(iii) Total Ash (m/m)	Not more than 2.5 percent
(iv) Oil Content (m/m)	Not less than 55.0 percent
(v) Acidity of extracted fat pressed as Lauric Acid (m/m)	Not more than 0.3 percent
(vi) Sulphur Dioxide	Not more than 50.0 mg/kg

Explanation:— For the purpose of this paragraph Extraneous vegetable matter means fragments of shell, fibre, peel and burnt particles.

**VINEGAR:**

1. Brewed Vinegar means a product obtained by alcoholic and acetic acid fermentation of any suitable medium such as fruits, malt (brewed exclusively from malted barley or other cereals), molasses, Jaggary, Sugar Cane juice etc. with or without addition of caramel and spices. It shall not be fortified with acetic acid.

a) The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- |  |  |
|--|--|
| (i) Acidity (m/v)  | Not less than 3.75 percent calculated as acetic Acid |
| (ii) Total Solids (m/v)  | Not less than 1.5 percent                            |
| (iii) Total ash content  | Not less than 0.18 percent                           |
| (iv) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substances or colouring matter except caramel. |  |

b) The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

2. Synthetic Vinegar means the product prepared from acetic acid with or without caramel & spices and shall confirm to the following requirements:

(i) Acidity of the product shall not be less than 3.75 percent m/v.

(ii) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substance or colouring matter except caramel.

2. Synthetic vinegar shall be distinctly labelled as

**SYNTHETIC - PREPARED FROM ACETIC ACID.**

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.

**NUTS AND RAISINS:**

1. Groundnut kernel (deshelled) for direct human consumption commonly known as moongphali are obtained from the plant arachis hypogols. the kernels shall be free from non-edible seeds such as mahua, castor, neem or argemone etc.

It shall be free from colouring matter and preservatives. It shall be practically free from extraneous matter, such as stones, dirt, clay etc. The kernels shall conform to the following standards, namely:—

Moisture	Not more than 7.0 per cent
Damaged kernel including slightly damaged kernel	Not more than 5.0 per cent by weight.
Aflatoxin content	Not more than 30 parts per billion.

2. Raisins means the product obtained by drying sound, clean grapes of proper maturity belonging to *Vitis vinifera* L. The product may be washed, with or without seeds and stems and may be bleached with Sulphur Dioxide. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have uniform colour, pleasant taste and flavour, free from odour and taste and evidence of fermentation. The product shall be free from added colouring matter. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following requirements:—

- |                             |                            |
|-----------------------------|----------------------------|
| (i) Moisture (m/m)          | Not more than 15.0 percent |
| (ii) Damaged Raisins (m/m)  | Not more than 2.0 percent  |
| (iii) Sugared Raisins (m/m) | Not more than 15.0 percent |

Explanation.- for the purpose of this paragraph,—

- (i) 'Damaged Raisins' means raisins affected by sunburn, scars, mechanical injury which seriously affects the appearance, edibility and keeping quality;
- (ii) 'Sugared Raisins' means raisins with external or internal sugar crystals which are readily apparent and seriously affect the appearance of the raisins.

3. Pistachio Nuts means the product obtained from mature seeds of *Pistacia vera* L which have been sun dried and their shells opened naturally or mechanically. The product may be raw, roasted, salted and/or lime juice treated. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have pleasant taste and flavour, free from odour and taste, mustiness and rancidity. The product shall conform to the following requirements:—

- |                            |                           |
|----------------------------|---------------------------|
| (i) Moisture (m/m)         | Not more than 7.0 percent |
| (ii) Unopened Shells (m/m) | Not more than 2.0 percent |
| (iii) Empty Shells (m/m)   | Not more than 1.0 percent |

Explanation.-for the purpose of this paragraph,—

- (i) 'Unopened Shells' means shells which are not split open but contain a fully developed kernel;
- (ii) 'Empty Shells' means shells in which kernel is not developed;
- (iii) 'Mouldy Shells' means nuts affected by mould.

4. Dates means the product obtained by drying sound, clean fruits of proper maturity belonging to *Phoenix dactylifera*. The product may be washed, pitted or unpitted, with or without cap, pressed or loose. The product may be treated with sugar, glucose syrup, flour and vegetable oil. The product shall be free from foreign matter, living insects, mould, dead insects, insect fragments and rodent contamination. The product shall have pleasant taste and smell, free from odour and evidence of fermentation. The product shall be free from any added colouring matter. The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. The product shall conform to the following requirements:—

- |                                 |                            |
|---------------------------------|----------------------------|
| (i) Moisture (m/m)              | Not more than 30.0 percent |
| (ii) Ash insoluble in dil Hcl   | Not more than 0.1 percent  |
| (iii) Blemished / Damaged Units | Not more than 5.0 percent  |
| (ii) (iv) Extraneous matter     | Not more than 1.0 percent  |

Explanation:— For the purpose of this paragraph —

- (i) 'Blemished' means units showing scars, discoloration, sun burn, dark spots on the surface;
- (ii) 'Damaged' means dates affected by mashing and/ or tearing of the flesh exposing the pit or significantly changing the appearance.
- (iii) 'Extraneous vegetable matter' means stalks, pieces of shells, pits, fibre, peel, etc.

5. Dry Fruits and Nuts means the products obtained by drying sound, clean fruits and nuts of proper maturity. The product may be with or without stalks, shelled or unshelled, pitted or unpitted or pressed into blocks. The product shall be free from mould, living / dead insects, insect fragments and rodent contamination. The product shall be uniform in colour with a pleasant taste and flavour characteristic of the fruit/ nut free from off flavour, mustiness, rancidity and evidence of fermentation. The product shall be free from added colouring. The product shall conform to the following requirements:—

- |  |                            |
|--|----------------------------|
| (i) Extraneous Vegetable matter (m/m)                  | Not more than 1.0 percent  |
| (ii) Damaged/ Discoloured units (m/m)                  | Not more than 2.0 percent  |
| (iii) Acidity of extracted fat expressed as oleic Acid | Not more than 1.25 percent |

Explanation — For the purpose of this paragraph —

- (i) 'Extraneous vegetable matter' means stalks, pieces of shells, pits, fibre, peel;
- (ii) 'Damaged or Discoloured' means units affected by sunburn, scars mechanical injury, discoloration and insects.

BEAN: means dry kidney shaped or flattened seeds of the leguminous varieties used as food, either whole or prepared as dal. It shall not contain hydrocyanic acid exceeding 20 parts per million as determined by Association of Official Analytical Chemists Maceration method.

#### CEREALS AND CEREAL PRODUCTS

##### ATTA

1. Atta or resultant atta means the coarse product obtained by milling or grinding clean wheat free from rodent hair and excreta. It shall conform to the following standards:—

Moisture	Not more than 14.0 per cent (when determined by heating at 130-133°C for 2 hours).
Total ash	Not more than 2.0 per cent (on dry weight basis).
Ash insoluble in dilute HCl	Not more than 0.15 per cent (on dry weight basis).
Gluten (on dry weight basis).	Not less than 6.0 per cent
Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis)	Not more than 0.18 per cent
It shall be free from rodent hair and excreta	

2. Fortified atta means the product obtained by adding one or more of the following materials to atta, namely:—

- (a) Calcium carbonate (prepared chalk, popularly known as Creta preparata).
- (b) Iron
- (c) Thiamine
- (d) Riboflavin, and
- (e) Niacin.

The calcium carbonate powder, if added for fortification shall be in such amount that 100 parts by weight of fortified atta shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate. It shall be free from Rodent hair and excreta

3. Protein rich (paushtik) atta means the product obtained by mixing wheat atta with groundnut flour "or soya flour", or a combination of both". flour up to an extent of 10.0 per cent. Soya flour which is a solvent extracted soya flour used in such mix shall conform to the standards of Soya flour laid down under 2.4.13 (1). It shall be free from insect or fungus infestation, odour and rancid taste. It shall not contain added flavouring and colouring agents or any other extraneous matter. It shall conform to the following standards:—

Moisture	Not more than 14.0 per cent
Total ash	Not more than 2.75 per cent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 per cent on dry basis.
Total Protein (N x 6.25)	Not less than 12.5 per cent on dry basis
Crude Fibre	Not more than 2.5 per cent on dry basis
Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub>	Not more than 0.12 per cent
It shall be free from Rodent hair and excreta	

##### MAIDA:

1. Maida means the fine product made by milling or grinding clean wheat free from rodent hair and excreta and bolting or dressing the resulting wheat meal. It shall conform to the following standards:—

Moisture	Not more than 14.0 per cent (when determined by heating at 130-133°C for 2 hours).
Total ash	Not more than 1.0 per cent (on dry weight basis).

Ash insoluble in dilute HCl	Not more than 0.1 percent (on dry weight basis).
Gluten (on dry weight basis).	Not less than 7.5 per cent
Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis)	Not more than 0.12 per cent

It shall be free from Rodent hair and excreta.

If the product is to be used for bakery purpose, the following flour treatment agents in the quantities mentioned against each may be used, namely:—

Benzoyl peroxide (Max)	40 p.p.m.
Potassium bromate (Max)	20 p.p.m.
Ascorbic acid (Max)	200 p.p.m.

2. Fortified maida means the product obtained by adding one or more of the following materials to maida, namely:—

- (a) Calcium carbonate (prepared chalk popularly known as creta preparata).
- (b) Iron,
- (c) Thiamine,
- (d) Riboflavin, and
- (e) Niacin.

The calcium carbonate powder, if added for fortification, shall be in such amount that 100 parts by weight of fortified maida shall contain not less than 0.30 and not more than 0.35 parts by weight of calcium carbonate. It shall be free from Rodent hair and excreta.

3. Protein rich (paushtik) maida means the product obtained by mixing maida (wheat flour) with groundnut flour "or soya flour; or a combination of both" up to an extent of 10.0 per cent soya flour which is a solvent extracted flour used in such mix shall conform to the standards of soya flour laid down under regulation 2.4.13 (1). It shall be free from insect or fungus infestation, odour and rancid taste. It shall not contain added flavour and colouring agents or any other extraneous matter. It shall conform to the following standards:

Moisture	Not more than 14.0 percent
Total ash	Not more than 1.4 per cent on dry basis.
Ash insoluble in dilute HCl	Not more than 0.1 percent on dry basis.
Total Protein (N x 6.25)	Not less than 12.5 percent on dry basis
Crude Fibre	Not more than 0.53 per cent on dry basis
Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub>	Not more than 0.12 percent
Gluten	Not less than 7.0 percent on dry basis It

shall be free from Rodent hair and excreta

SEMOLINA (Suji or Rawa):

1. Semolina (suji or rawa) means the product prepared from clean wheat free from rodent hair and excreta by process of grinding and bolting. It shall be free from musty smell and off-odour and shall be creamy yellow in colour. It shall conform to the following standards:—

Moisture	Not more than 14.5 percent (when determined by heating at 130-133°C for 2 hours).
Total ash	Not more than 1.0 per cent (on dry weight basis).
Ash insoluble in dilute HCl	Not more than 0.1 percent (on dry weight basis).
Gluten (on dry weight basis).	Not less than 6.0 per cent

Alcoholic acidity (with 90 per cent alcohol expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis)	Not more than 0.18 per cent
---	-----------------------------

It shall be free from Rodent hair and excreta

#### BESAN:

1. Besan means the product obtained by grinding dehusked Bengal gram (*Cicer arietinum*) and shall not contain any added colouring matter or any other foreign ingredient.

Besan shall conform to the following standards:—

Total ash	Not more than 5.0%.
Ash insoluble in dilute hydrochloric acid	Not more than 0.5%.

#### Pearl Barley (Jau)

1. Pearl Barley (Jau) shall be the product obtained from sound and clean barley (*Horbeum vulgare* or *hordeum distichon*). It shall be whitish in colour and shall be free from fermented, musty or other objectionable taste or odour, adulterants and insect and fungus infestation and rodent contamination. It shall not contain other foodgrains more than 1 per cent by weight.

Barley powder shall be the product obtained by grinding clean and sound dehusked barley (*Hordeum vulgare* or *Hordeum distichon*) grains. Barley starches shall not be less than 98.0 per cent by weight.

Barley powder shall also conform to the following standards namely:—

Total ash (on dry basis)	Not more than 1.0%.
Ash insoluble in dilute hydrochloric acid (on dry basis)	Not more than 0.1%.
Crude fibre (on dry basis)	Not more than 0.5%.
Alcoholic acidity (as H <sub>2</sub> SO <sub>4</sub> with 90 per cent alcohol)	Not more than 0.10 per cent.

2. Wholemeal barley powder or barley flour or choker yukt jau ka churan means the product obtained by grinding clean and sound dehusked barley (*Hordeum vulgare* or *Hordeum distichon*) grains free from rodent hair and excreta]. It shall conform to the following standards:—

Moisture	Not more than 14.0 percent (when determined by heating at 130-133°C for 2 hours).
Total ash	Not more than 3.0 per cent (on dry weight basis).
Ash insoluble in dilute HCl	Not more than 0.5 percent (on dry weight basis).
Alcoholic acidity (with 90 per cent alcohol) expressed as H <sub>2</sub> SO <sub>4</sub> (on dry weight basis)	Not more than 0.17 per cent

#### Food grains:

1. Food grains meant for human consumption shall be whole or broken kernels of cereals, millets and pulses. In addition to the undermentioned standards to which foodgrains shall conform, they shall be free from Argemone, Maxicana and Kesari in any form. They shall be free from added colouring matter. The foodgrains shall not contain any insecticide residues other than those specified in regulation 2.3.1 of Food Safety and Standards (Contaminants, Toxins and Residues) Regulation, 2011 and the amount of insecticide residue in the foodgrains shall not exceed the limits specified in Regulation 2.3.1. of the said Table Food Safety and standards (Contaminants, Toxins and Residues) Regulation, 2011. The foodgrains meant for grinding/processing shall be clean, free from all impurities including foreign matter (extraneous matter).

#### 2. Wheat

Description: Wheat shall be the dried mature grains of *Triticum aestivum* Linn. or *Triticum vulgare* Vill, *triticum durum* Desf., *triticum sphaerococcum* Perc., *Triticum dicoccum* Schubl., *Triticum compactum* Host. It shall be sweet, clean and wholesome. It shall also conform to the following standards namely:—



(i) Moisture—	Not more than 14 per cent by weight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
(ii) Foreign matter — (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. By weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains	Not more than 6 per cent by weight.
(iv) Damaged grains	Not more than 6.0 per cent by weight including kernel bunt affected grains and ergot affected grains. The limit of kernel bunt affected grains and ergot affected grains shall not exceed 3.0 per cent and 0.05 percent by weight, respectively.
(v) Weevilled grains—	Not more than 10 per cent by count.
(vi) Uric acid—	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram
(viii) Deoxynivalenol (DON)	Not more than 1000 micrograms per kilogram Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 12 per cent by weight.

### 3. MAIZE:

Maize shall be the dried mature grains of *Zea mays* Linn. It shall be sweet, hard, clean and wholesome. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 16.0 per cent by weight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
(ii) Foreign matter — (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 3 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 10 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 9 per cent by weight.

### 4. JAWAR AND BAJRA:

Jawar and Bajra shall be the dried mature grains of *Sorghum Vulgare* Pers. and

*Pennisetum - typhoideum* Rich, respectively. These shall be sweet, hard, clean and wholesome. These shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 16.0 per cent by weight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
(ii) Foreign matter -Extraneous Matter	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
(iii) Other edible grains	Not more than 3 per cent by weight.

(iv) Damaged grains	Not more than 6 per cent by weight out of which ergot affected grains shall not exceed 0.05 percent by weight.
(v) Weevilled grains	Not more than 6 per cent by weight.
(vi) Uric acid	Not more than 100 mg per kg
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 10 per cent by weight.

#### 5. RICE:

Rice shall be the mature kernels or pieces of kernels of *Oryza sativa* Linn. obtained from paddy as raw or par boiled. It shall be dry, sweet, clean, wholesome and free from unwholesome poisonous substance. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 16 per cent by weight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. By weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Damaged grains-	Not more than 5 per cent by weight
(iv) Weevilled grains-	Not more than 10 per cent by count.
(v) Uric acid-	Not more than 100 mg. per kg.
(vi) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, and damaged grains shall not exceed 6 per cent by weight.

#### 6. MASUR WHOLE:

Masur whole shall consist of lentil (*lens culinaris* Medik or *Even lens* Linn. or *Lens esculenta* Moench). It shall be sound, dry, sweet, clean and wholesome. It shall conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C 133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin
(iii) Other edible grains-	Not more than 3 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 6 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8 per cent by weight.

#### 7. URD WHOLE:

Urd whole shall consist of seeds of the pulses (*phaseolus mungo* Linn). It shall be sound, dry, sweet and wholesome. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14.0 per cent by weight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
---------------	---

(ii) Foreign matter -Extraneous Matter	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent by weight shall be impurities of animal origin.
(iii) Other edible grains	Not more than 4 per cent by weight.
(iv) Damaged grains	Not more than 5 per cent by weight.
(v) Weevilled grains	Not more than 6 per cent by count.
(vi) Uric acid	Not more than 100 mg per kg
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 9 per cent by weight.

#### 8. MOONG WHOLE:

Moong whole shall consist of seeds of green gram (*Phaseolous aurues* Roxb., *Phaseolus radiatus* Roxb.) It shall be sound, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter — (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 4 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 6 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 9 per cent by weight.

#### 9. CHANA WHOLE:

Channa whole shall be the dried grains of gram (*cicer arietinum* Linn.) It shall be sound, clean, sweet, wholesome and free from unwholesome substances. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 16 per cent by wight (obtained by heating the pulverised grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 4 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 10 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 9 per cent by weight.

## 10. SPLIT PULSE (DAL) ARHAR:

Dal Arhar shall consist of husk and split seeds of red gram (*Cajanus cajan* (L) Millsp). It shall be sound, clean, sweet, dry, wholesome and free from admixture of unwholesome substance. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 0.5 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 3 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 6 per cent by weight.

## 11. SPLIT PULSE (DAL) MOONG:

Dal Moong shall consist of split seeds of green grams (*Phaseolus aureus* Roxb, *Phaseolus raditus*). It shall be sound, clean, sweet, wholesome and free from unwholesome. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. By weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 4 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 3 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8 per cent by weight.

## 12. SPLIT PULSE (DAL) URD:

Dal Urd shall consist of split seeds of pulse (*Phaseolus mungo* Linn.) It shall be sound, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 4 per cent by weight.

(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 3 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 8 per cent by weight.

### 13. DAL CHANA:

Dal Chana shall consist of split grains of gram (*Cicer arietinum* Linn). It shall be sound, clean, sweet, dry, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 16 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains	Not more than 2 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 3 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 7 per cent by weight.

### 14. SPLIT PULSEMASUR:

Dal masur shall consist of dehusked whole and split seed of the lentil (*Lenil esculenta* Moench or *Lens culinaris* Medik or *Ervum lens* Linn). It shall be sound, clean, dry, sweet, wholesome and free from admixture of unwholesome substances. It shall also conform to the following standards, namely:—

(i) Moisture-	Not more than 14 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains -	Not more than 2 per cent by weight.
(iv) Damaged grains-	Not more than 5 per cent by weight.
(v) Weevilled grains-	Not more than 3 per cent by count.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that the total of foreign matter, other edible grains and damaged grains shall not exceed 7 per cent by weight.

### 15. Any other foodgrains not specified above shall conform to the following standards, namely:—

(i) Moisture-	Not more than 16 per cent by weight (obtained by heating the pulverized grains at 130°C-133°C for two hours).
---------------	---

(ii) Foreign matter - (Extraneous matter)	Not more than 1 per cent. by weight of which not more than 0.25 per cent. by weight shall be mineral matter and not more than 0.10 per cent. by weight shall be impurities of animal origin.
(iii) Other edible grains	Not more than 6 per cent by weight.
(iv) Weevilled grains-	Not more than 10 per cent by count.
(v) Damaged grains-	Not more than 5 per cent by weight.
(vi) Uric acid-	Not more than 100 mg. per kg.
(vii) Aflatoxin	Not more than 30 micrograms per kilogram.

Provided that total of foreign matter, other edible grains and damaged grains shall not exceed 12.0 per cent by weight.

Explanation — For the purposes of items in regulation 2.4.6 (2-14):—

(a) "foreign matter" means any extraneous matter other than foodgrains comprising of-

(i) inorganic matter consisting of metallic pieces, sand, gravel, dirt, pebbles, stones, lumps of earth, clay and mud, animal filth and in the case of rice, kernels or pieces of kernels, if any, having mudsticking on the surface of the rice, and

(ii) organic matter consisting of husk, straws, weed seeds and other inedible grains and also paddy in the case of rice;

(b) poisonous, toxic and/or harmful seeds - means any seeds which is present in quantities above permissible limit may have damaging or dangerous effect on health, organoleptic properties or technological performance such as datura (*D. fastur* linn and *D. stramonium* linn), corn cokle (*Agrostemma githago* L, *Machai Lalliumremulenum* linn), Akra (*Vicia* species).

(c) "Damaged grains" means kernels or pieces of kernels that are sprouted or internally damaged as a result of heat, microbe, moisture or whether, viz., ergot affected grain and kernel bunt grains;

(d) "Weevilled grains" means kernels that are partially or wholly bored by insects injurious to grains but does not include germ eaten grains and egg spotted grains;

(e) "Other edible grains" means any edible grains (including oil seeds) other than the one which is under consideration.

CORNFLOUR (Maize starch):

1. CORNFLOUR (Maize starch) means the starch obtained from maize (*zea mays* L.). It shall contain no added colour, flavours or other chemicals. It shall be free from dirt, insects, larvae and impurities or other extraneous matter. It shall conform to the following standards:—

Moisture	Not more than 12.5%
Total ash	Not more than 0.5 per cent (on dry weight basis).
Ash insoluble in dilute HCl	Not more than 0.1 percent (on dry weight basis).
Alcoholic acidity (with 90 per cent alcohol)	Shall be equivalent to not more than 2.0 ml. N. NaOH per 100 g. of dried substance

CORNFLAKES:

1. CORN FLAKES means the product obtained from dehulled, degermed and cook corn (*Zea mays* L.) by flaking, partially drying and toasting. It shall be in the form of crisp flakes of reasonably uniform size and golden brown in colour. It shall be free from dirt, insects, larvae and impurities and any other extraneous matter. It shall conform to the following standards:—

Moisture	Not more than 7.5%
Total ash excluding salt	Not more than 1.0 per cent (on dry weight basis).

Ash insoluble in dilute HCl	Not more than 0.1 percent (on dry weight basis).
Alcoholic acidity (with 90 per cent alcohol)	Shall be equivalent to not more than 2.0 ml. N. NaOH per 100 g. of dried substance

**CUSTARD POWDER:**

1. CUSTARD POWDER means the product obtained from maize (*Zea mays* L.) or sago/topioca with or without the addition of small quantities of edible starches obtained from arrowroot, potato or jawar (*sorghum vulgare*) and with or without the addition of edible common salt, milk and albuminous matter. It may contain permitted colours and flavours. It shall be free from any other foreign matter. It shall be the form of fine powder, free from rancidity, fermented and musty odour. It shall conform to the following standards namely:—

Moisture	Not more than 12.5%
Total ash excluding added common salt (on dry basis)	Not more than 0.5 per cent
Ash insoluble in dilute HCl (on dry basis).	Not more than 0.1 percent

**MACARONI PRODUCTS:**

1. PASTA PRODUCTS-(Macaroni, spaghetti, vermicelli) means the products obtained from suji or maida with or without addition of ingredients like edible groundnut flour, tapioca flour, soya flour, milk powder, spices, vitamins, minerals, by kneading the dough and extending it. It shall be free from added colour, dirt, insects larvae and impurities or any other extraneous matter. It shall conform to the following standards:—

Moisture	Not more than 12.5%
Total ash	Not more than 1.0 per cent on dry basis
Ash insoluble in dilute HCl (on dry basis).	Not more than 0.1 percent
Nitrogen	Not less than 1.7 per cent on dry basis

**MALTED AND MALT BASED FOODS**

1. MALTED MILK FOOD means the product obtained by mixing whole milk, partly skimmed milk or milk powder with the wort separately from a mash of ground barley malt, any other malted cereal grain and wheat flour or any other cereal flour or malt extract with or without addition of flavouring agents and spices, emulsifying agents, eggs, protein isolates, edible common salt, sodium or potassium bicarbonate, minerals and vitamins and without added sugar in such a manner as to secure complete hydrolysis of starchy material and prepared in a powder or granule or flake form by roller drying, spray drying, vacuum drying or by any other process. It may contain cocoa powder. It shall be free from dirt and other extraneous matter. It shall not contain any added starch (except starch natural to cocoa powder) and added non-milk fat. It shall not contain any preservative or added colour. Malted milk food containing cocoa powder may contain added sugar. Malted milk food shall also conform to the following standards, namely:—

	<i>Malted milkfood without Cocoa powder</i>	<i>Malted milkfood withcocoa powder</i>
(a) Moisture	Not more than 5 per cent by weight.	Not more than 5 per cent by weight
(b) Total protein x 6.25) (on dry basis)	Not less than 12.5 per cent by weight.	Not less than 11.25 per cent by weight. (N
(c) Total fat (on Dry basis)	Not less than 7.5% by weight	Not less than 6% by weight.
(d) Total ash (on dry basis)	Not more than 5% by weight	Not more than 5% by weight.
(e) Acid insoluble ash dry basis) (in dilute HCl)	Not more than 0.1 per cent by weight	Not more than 0.1 per cent by weight (on
(f) Solubility	Not less than 85% by weight.	Not less than 80% by weight.
(g) Cocoa powder (on dry basis) --		Not less than 5.0% by weight.
(h) Test for starch	Negative	—

	<i>Malted milkfood without</i>	<i>Malted milkfood with cocoa powder Cocoa powder</i>
(i) Bacterial count	Not more than 50,000 per gram.	Not more than 50,000 per gram.
(j) Coliform count	Not more than 10 per gram.	Not more than 10 per gram.
(k) Yeast and mould count		absent in 0.1 gm
(l) Salmonella and Shigella		absent in 0.1 gm
(m) E.Coli		absent in 0.1 gm
(n) Vibrio cholera and V.Paraheamolyticus		absent in 0.1 gm
(o) Faecal streptococci and Staphylococcus aureas		absent in 0.1 gm

2. MALT BASED FOODS (MALT FOOD) means the product obtained by mixing malt (wort or flour or malt extract) of any kind obtained by controlled germination of seeds (cereals and/or grain legumes), involving mainly steeping germination and kiln drying processes with other cereal and legume flour with or without whole milk or milk powder, flavouring agents, spices, emulsifying agents, eggs, egg powder, protein isolates, protein hydrolysates, edible common salt, liquid glucose, sodium or potassium bicarbonate minerals, amino acids and vitamins. It may contain added sugar and/or cocoa powder and processed in such a manner to secure partial or complete hydrolysis of starchy material in the form of powder or granules or flakes by drying or by dry mixing of the ingredients. The grains, legumes and their products used in preparation of malt shall be sound, uninfested and free from insect fragments, rat excreta, fungal infested grains or any other type of insect or fungal damage.

It shall also conform to the following standards, namely:—

- |  |   |
|--|---|
| (a) Moisture   | - Not more than 5 per cent, by weight   |
| (b) Total Protein (N x 6.25) (on dry basis)  | - Not less than 7.0 per cent, by weight |
| (c) Total ash (on dry basis)   | - Not more than 5 per cent, by weight   |
| (d) Acid insoluble ash (in dilute HCl)   | - Not more than 0.1 per cent, by weight |
| (e) Total plate count  | - Not more than 50,000 per gram.        |
| (f) Coliform count   | - Not more than 10 per gram.            |
| (g) Yeast and Mould Count  | - Not more than 100 per gram.           |
| (h) E.Coli   | - Absent in 10 gram.                    |
| (i) Salmonella and Shigella  | - Absent in 25 gram                     |
| (j) Alcoholic Acidity<br>(expressed as H <sub>2</sub> SO <sub>4</sub> )<br>with 90 per cent alcohol<br>(on dry weight basis) | - Not more than 0.30 per cent.          |
| (k) Vibrio cholera and V.Paraheamolyticus  | absent in 0.1 gm                        |
| (l) Faecal streptococci and<br>Staphylococcus aureas   | absent in 0.1 gm                        |

#### ROLLED OATS:

1. ROLLED OATS (quick cooking oats) means the product made from sound hulled oats (*Avena sativa*). It shall be free from added colours, rancidity and flavouring agents. It shall be in the form of flakes of uniform size having a light cream colour. It shall be free from dirt, insects and insect fragments. It shall conform to the following standards:—

Moisture	Not more than 10.0 %
Total ash	Not more than 2.0 per cent on dry basis



Ash insoluble in dilute HCl (on dry basis).	Not more than 0.1 percent
Nitrogen	Not less than 1.8 per cent on dry basis
Crude Fibre	Not more than 2.0 percent on dry basis
Alcohol acidity (with 90 percent alcohol)	Shall be equivalent to not more than 8.0 ml. N.NaOH per 100 gm. of dried substance.

**SOLVENT EXTRACTED FLOURS:**

1. SOLVENT EXTRACT SOYA FLOUR means the product obtained from clean, sound healthy soyabeans by a process of cracking, dehulling, solvent extraction with food grade hexane and grinding. It shall be in the form of coarse or fine powder or grits, white to creamy white in colour of uniform composition and free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from any added colour and flavour. It shall conform to the following standards, namely:—

(a) Moisture	Not more than 9.0 per cent by weight
(b) Total ash	Not more than 7.2 per cent by weight on dry basis
(c) Ash insoluble in dilute HCl	Not more than 0.4 per cent by weight on dry basis.
(d) Protein (Nx6.25)	Not less than 48 per cent by weight on dry basis.
(e) Crude fibre	Not more than 4.2 per cent by weight on dry basis.
(f) Fat	Not more than 1.5 per cent by weight on dry basis
(g) Total bacterial count	Not more than 50,000 per gm.
(h) Coliform bacteria	Not more than 10 per gm.
(i) Salmonella bacteria	Nil in 25 gm
(j) Hexane (Food grade)	Not more than 10.00 ppm

2. SOLVENT EXTRACTED GROUNDNUT FLOUR means the product obtained from fresh, clean, degermed groundnut kernels which have been decuticled after mild roasting. The kernels shall be first expelled followed by solvent extraction with food grade hexane or by direct extraction of kernels. It shall be whitish to light brown in colour of uniform composition and shall be free from rancid and objectionable odour, extraneous matter, insect, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards namely :—

(a) Moisture	Not more than 8.0 per cent by weight
(b) Total ash	Not more than 5.0 per cent by weight on dry basis
(c) Ash insoluble in dilute HCl	Not more than 0.38 per cent by weight on dry basis.
(d) Protein(Nx6.25)	Not less than 48 per cent by weight on dry basis.
(e) Crude fibre	Not more than 5.0 per cent by weight on dry basis.
(f) Fat	Not more than 1.5 per cent by weight on dry basis
(g) Total bacterial	Not more than 50,000 per gm.count
(h) Coliform bacteria	Not more than 10 per gm.
(i) Salmonella bacteria	Nil in 25 gm
(j) Hexane (Food grade)	Not more than 10.00 ppm

3. SOLVENT EXTRACTED SESAME FLOUR means the product obtained by pressing, clean, sound healthy and decuticled sesame seeds followed by solvent extraction with food grade hexane or by direct extraction of kernels. It shall be in the form of flour of white or pale creamy white colour, of uniform composition and free from

rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards, namely :—

(a) Moisture	Not more than 9.0 per cent by Weight
(b) Total ash	Not more than 6.0 per cent by weight on dry basis
(c) Ash insoluble in dilute HCl	Not more than 0.15 per cent by weight on dry basis.
(d) Protein (Nx6.25)	Not less than 47 per cent by weight on dry basis.
(e) Crude fibre	Not more than 6.0 per cent by weight on dry basis.
(f) Fat	Not more than 1.5 per cent by weight on dry basis
(g) Total bacterial count	Not more than 50,000 per gm.
(h) Coliform bacteria	Not more than 10 per gm.
(i) Salmonella bacteria	Nil in 25 gm.
(j) Oxalic Acid	Not more than 0.5 per cent by weight content on dry basis.
(k) Hexane (Food grade)	Not more than 10.00 ppm.

4. SOLVENT EXTRACTED COCONUT FLOUR means the product obtained from fresh coconut Kernels or dried coconut copra of good quality and free from mould. Food grade hexane shall be used for extraction of the oil. It shall be of white or pale brownish yellow colour of uniform composition and free from rancid and objectionable odour, extraneous matter, insects, fungus, rodent hair and excreta. It shall be free from added colour and flavour. It shall conform to the following standards, namely :—

(a) Moisture	Not more than 9.0 per cent by weight
(b) Total ash	Not more than 6.0 per cent by weight on dry basis
(c) Ash insoluble in —dilute HCl	Not more than 0.35 per cent by weight on dry basis.
(d) Protein (Nx6.25)	Not less than 22.0 per cent by weight on dry basis.
(e) Crude fibre	Not more than 9.0 per cent by weight on dry basis.
(f) Fat	Not more than 1.5 per cent by weight on dry basis
(g) Total bacterial -	Not more than 50,000 per gm.count
(h) Coliform bacteria	Not more than 10 per gm.
(i) Salmonella bacteria	- Nil in 25 gm.
(j) Hexane (Food grade)	Not more than 10.00 ppm.

5. SOLVENT EXTRACTED COTTON SEED FLOUR means the product obtained by solvent extraction of oil with food grade hexane from oil cake immediately following the single pressing, from cotton seed of good quality which have been pre-cleaned and are free from infected or otherwise damage materials and extraneous matter. It shall be in the form of flour of white or pale brownish colour, of uniform composition and free from rancid and objectionable odour, extraneous matter, insect, fungus, rodent hair and excreta. It shall be free from added colours and flavours. It shall conform to the following standards, namely :—

(a) Moisture	Not more than 8.0 per cent by weight
(b) Total ash	Not more than 5.0 per cent by weight on dry basis
(c) Ash insoluble in dilute HCl	Not more than 0.35 per cent by weight on dry basis.
(d) Crude Protein (Nx6.25)	Not less than 47 per cent by weight on dry basis.
(e) Available lysine	Not less than 3.6 g. per 100 g. of crude protein.
(f) Crude fibre	Not more than 5.0 per cent by weight on dry basis.

(g) Free gossypol	Not more than 0.06 per cent by weight on dry basis.
(h) Total gossypol	Not more than 1.2 percent by weight on dry basis.
(i) Fat	Not more than 1.5 per cent by weight on dry basis.
(j) Total bacterial Count	Not more than 50,000 per gm.
(k) Coliform bacteria	Not more than 10 per gm.
(l) Salmonella bacteria	Nil in 25 gm.
(m) Hexane (Food grade) -	Not more than 10.00 ppm."

**STARCHYFOODS:**

1. **ARROWROOT** means the separated and purified starch from the rhizomes of the plants known as *Maranta arundinacea* or from *Curcuma augustifolia*.

2. **SAGO** shall mean small hard globules or pearls made from either the starch of the sago palm or the tubers of *topioca (Manihot utilissima)* and shall be free from any extraneous matter including natural colours.

It shall conform to the following standards, namely:—

- |  |                                     |
|--|-------------------------------------|
| (i) total ash (on dry basis)                                   | shall not be more than 0.4 percent; |
| (ii) ash insoluble in dilute hydrochloric acid (on dry basis). | shall not exceed 0.1 percent        |

**BAKERYPRODUCTS:**

1. Biscuits including wafer biscuits shall be made from maida, vanaspati or refined edible oil or table butter or desi butter or margarine or ghee or their mixture containing any one or more of the following ingredients, namely:—

Edible common salt, butter, milk powder, cereals and their products, cheese cocoa, coffee extract, edible desiccated coconut, dextrose, fruit and fruits products, dry fruit and nuts, egg, edible vegetable products, ginger, gluten groundnut flour, milk and milk products, honey, liquid glucose, malt products, edible oilseeds, flour and meals, spices and condiments, edible starches such as potato starch and edible flours, sugar and sugar products, invert sugar, jaggery, protein concentrates, oligofructose (max 15%) vinegar and other nutrients and vitamins:

Provided that it may contain food additives specified in these regulations including Appendix A:

Provided further that it may contain artificial sweetener as provided in regulation 3.1.3 of these regulations and label declaration as provided in regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided also that it shall conform to following standards, namely:—

- |   |                                     |
|---|-------------------------------------|
| (i) ash insoluble in dilute hydrochloric acid (on dry basis): | shall not be more than 0.1 per cent |
| (ii) acidity of extracted fat (as oleic acid):-               | not exceeding 1.5 per cent.         |

It may contain Oligofructose (dietary fibres) upto 15% maximum subject to label declaration under Regulation 2.4.5 (43) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

2. **BREAD** whether sold as white bread or wheat bread or fancy or fruity bread or bun or masala bread or milk bread or of any other name, shall mean the product prepared from a mixture of wheat atta, maida, water, salt, yeast or other fermentive medium containing one or more of the following ingredients, namely:—

Condensed milk, milk powder (whole or skimmed), whey, curd, gluten, sugar, gur or jaggery, khandsari, honey, liquid glucose, malt products, edible starches and flour, edible groundnut flour, edible soya flour, protein concentrates and isolates, vanaspati, margarine or refined edible oil of suitable type or butter or ghee or their mixture, albumin, lime water, lysine, vitamins, spices and condiments or their extracts, fruit and fruit product (Candied and crystallized or glazed), nuts, nut products, oligofructose (max 15%) and vinegar:

Provided that it may also contain food additives specified in these regulations including Appendix A:

Provided further that it may also contain artificial sweetener as provided in regulation 3.1.3 of this regulation and label declaration in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided also that it shall conform to the following standards, namely:—

- |   |  |
|---|--|
| (a) alcoholic acidity (with 90 per cent alcohol)      | Shall be not more than equivalent of 7.5 ml. N NaOH per 100 g of dried substances. |
| (b) ash insoluble in dilute HCL on dry weight basis — |  |
| (i) bread except masala bread or fruit bread          | Not more than 0.1 per cent   |
| (ii) masala bread or fruit bread                      | Not more than 0.2 per cent   |

Provided also that it shall be free from dirt, insect and insect fragments, larvae, rodent hairs and added colouring matter except any permitted food colours present as a carry over colour in accordance with the provision in regulation 3.1.17, in raw material used in the products.

It may contain Oligofructose (dietary fibres) upto 15% maximum subject to label declaration under labelling regulation 2.4.5 (43) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

## 2.5 MEAT AND MEAT PRODUCTS

### 2.5.1 Definition:

(a) "animal" means an animal belonging to any of the species specified below;-

- (i) Ovines;
- (ii) Caprines;
- (iii) Suillines;
- (iv) Bovines;

and includes poultry and fish

(b) "carcass" means the dead body or any part thereof including the viscera of any animal which has been slaughtered

(c) "meat" means the flesh and other edible parts of a carcass

(d) "meat food products" means any article of food or any article intended for, or capable of, being used as a food which is derived or prepared from meat by means of drying, curing, smoking, cooking, seasoning, flavouring, freezing or following a method of processing meat akin to any of the above methods, but shall not include the following products

- (i) Meat extracts, meat consommé and stock, meat sauces and similar products not containing fragments of meat;
- (ii) Whole, broken or crushed bones, meat peptones, animal gelatin, meat powder, pork-rind powder, blood plasma, dried blood, dried blood plasma, cellular proteins, bone extracts and similar products;
- (iii) Fats melted down from animal tissues;
- (iv) Stomachs, bladders and intestines, clean and bleached, salted or dried;
- (v) Products containing fragments of meat, but which contain a quantity of meat or meat product not exceeding ten percent of the total weight of the final product;
- (vi) Patties, puffs, rolls, samosas, cutlets, koftas, kababs, chops, tikkas and soups made from mutton, chicken, goat meat, buffalo meat, beef and grilled chicken which are prepared for immediate consumption, the ampoules of chicken essence, hot-dogs and hamburgers prepared for immediate consumption which can not be stored even under refrigerated conditions;

(e) "Slaughter house" means the building, premises or place which is licensed as a slaughter house by the local authority for the slaughter of animals intended for human consumption.

### Meat and Meat Products:

1. CANNED CORNED BEEF means the product prepared from boneless meat of carcass of bovine animals including buffalo meat, which have been subjected to ante-mortem and postmortem inspection.

The product shall be uniformly cured with edible common salt and sodium and / or potassium nitrite. The product may contain ascorbic acid, sodium ascorbate or isoascorbate acid/ sodium iso-ascorbate singly or in

combination not exceeding 500 mg/kg. The product may also contain sucrose, dextrose, lactose, maltose and glucose syrup including corn syrup.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35°C for 10 days and 55°C for 5 days.

The product shall be in the form of a solid pack capable of being sliced.

The product shall be free from any added colour and natural and artificial flavour. The product shall be clean and substantially free from staining and contamination from the container, foreign matter and objectionable odour.

The product shall conform to the following requirements, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Plate Count	1000/gram maximum
(2)	E.Coli	Absent in 25 gram
(3)	Solmonella	Absent in 25 gram
(4)	Staphylococcus aureus	Absent in 25 gram
(5)	Clostridium perfringens and Clostridium botulinum	Absent in 25 gram

2. CANNED LUNCHEON MEAT means the product prepared from edible portion of meat of mammalian animal, slaughtered in an abattoir, which have been subjected to ante-mortem and postmortem inspection and/or edible meat of poultry birds, including chickens, turkeys, ducks, geese, guinea fowl or pigeonslaughtered in an abattoir.

The product shall be uniformly cured with edible common salt and sodium and /or potassium nitrite. The product may be with or without binders such as cereal flour/starch, bread, biscuits or bakery products, milk powder, whey powder, egg protein, vegetable protein products, glucose, invert sugar, dextrose, lactose, maltose, glucose syrup, including corn syrup, spices, seasoning and condiments and water soluble hydrolysed protein.

The product may be smoked and flavoured with natural and natural identical flavours and permitted flavour enhancer.

The product may contain ascorbic acid / isoascorbic acid and its sodium salts singly or in combination not exceeding 500 mg/kg expressed as ascorbic acid as antioxidant and sodium and or potassium mono - di - polyphosphates singly or in combination not exceeding 3000 mg/kg expressed as P2O5 as water retention agents.

The product shall be packed in hermetically sealed container and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed container shall not show any change on incubation at 35°C for 10 days and 55°C for 5 days.

The product shall be clean and substantially free from stains from the container and foreign matter and shall be capable of being sliced.

The product shall conform to the following requirement, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Fat content: a) Product without binder b) Product with binder	Not more than 30.0 percent Not more than 35.0 percent
(2)	Total Plate Count	1000/gram maximum
(3)	E.Coli	Absent in 25 gram
(4)	Salmonella	Absent in 25 gram
(5)	Staphylococcus aureus	Absent in 25 gram
(6)	Clostridium perfringens and Clostridium botulinum	Absent in 25 gram

3. CANNED COOKED HAM means the product prepared from meat of pigs which have been subjected to ante-mortem and postmortem inspection. The product shall be free from bones, detached cartilage tendous, ligaments and may be with or without skin and fat. The product shall be uniformly cured with edible common salt and sodium and / or potassium nitrite.

The product may contain sucrose, invert sugar, dextrose, lactose, maltose, glucose syrup including corn syrup, honey, spices, seasoning and condiments, water soluble hydrolysed protein and food grade gelatin. The product may be smoked and flavoured with natural flavouring substances and nature identical flavours as well as permitted flavour enhancers. The product may contain ascorbic acid / isoascorbic acid and its sodium salt singly or in combination not exceeding 500 mg/kg expressed as ascorbic acid, sodium and or potassium mono - di - polyphosphates singly or in combination not exceeding 3000 mg/ kg expressed as P<sub>2</sub>O<sub>5</sub> as antioxidant and water retention agents respectively. The product may also contain sodium/potassium alginate not exceeding 10 mg/kg and or agar, carrageenan and sodium citrate as emulsifying and stabilizing agents.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35°C for 10 days and 55°C for 5 days.

The product shall be free from any stains from the container/package, objectionable matter and shall be capable of being sliced.

The product shall conform to the following requirement, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Plate Count	1000/gram maximum
(2)	E.Coli	Absent in 25 gram
(3)	Salmonella	Absent in 25 gram
(4)	Staphylococcus aureus	Absent in 25 gram
(5)	Clostridium perfringens and Clostridium botulinum	Absent in 25 gram

4. CANNED CHOPPED MEAT means the product prepared from edible portion of meat of mammalian animals slaughtered in an abattoir, which have been subjected to ante-mortem and postmortem inspection and / or edible meat of poultry birds including chickens, turkeys, ducks, geese, slaughtered in an abattoir.

The product shall be uniformly cured with edible common salt and Sodium or Potassium Nitrite. The product may be with or without binders such as cereal flour/starch, bread, biscuit, or bakery product. Vegetable protein product, fructose, invert sugar; dextrose, lactose, maltose, glucose syrup including corn syrup, spices, seasoning and condiments and water soluble hydrolysed protein.

The product may be smoked and flavoured with natural and nature identical flavours and permitted flavour enhancer.

The product may contain ascorbic acid / iso-ascorbic acid and its sodium salts singly or in combination not exceeding 500 mg / kg expressed as ascorbic acid and sodium and or potassium mono-di-polyphosphate, singly or in combination not exceeding 3000 mg/kg expressed as P<sub>2</sub>O<sub>5</sub> as antioxidants and water retention agent respectively.

The product shall be packed in hermetically sealed containers and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 35°C for 10 days and 55°C for 5 days.

The product shall be clean and substantially free from staining and contamination from the container, foreign matter and shall be capable of being sliced. The product shall conform to the following requirements, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Fat content: a) Product without binder b) Product with binder	Not more than 25.0 percent Not more than 30.0 percent

(2)	Total Plate Count	1000 / gram maximum
(3)	E.Coli	Absent in 25 gram
(4)	Salmonella	Absent in 25 gram
(5)	Staphylococcus aureus	Absent in 25 gram
(6)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram

5. CANNED CHICKEN means the product prepared from edible portion of meat of poultry birds, slaughtered in an abattoir, which have been subjected to ante-mortem and postmortem inspection. The product shall be free from bones, blood clots, skin, hair, viscera and bruised/disintegrated material.

The product shall be cured with a mixture of edible common salt and sodium nitrite. The product shall be free from added colour flavour and meat tenderized. The packing medium and other ingredients shall be of food grade quality.

The product shall be packed in hermetically sealed clean and sound tin containers and subjected to adequate heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed containers shall not show any change on incubation at 350C for 10 days and 550C for 5 days.

The contents shall have the characteristic colour, free from objectionable odour, discolouration and excessive disintegration.

The product shall conform to the following requirements, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Plate Count	1000/ gram maximum
(2)	E.Coli	Absent in 25 gram
(3)	Salmonella	Absent in 25 gram
(4)	Staphylococcus aureus	Absent in 25 gram
(5)	Clostridium perfringens and Clostridium Botulinum	Absent in 25 gram

6. CANNED MUTTON AND GOAT MEAT means the product prepared from edible portion of meat of sheep and goat animals slaughtered in an abattoir, which have been subjected to ante-mortem and postmortem inspection. The product shall be free from bones, blood clots, skin, hair, strings and fibrous tissue, bruised material, viscera, tendons and excessive fat.

The product shall be cut into pieces of reasonably uniform size and cured with a mixture of edible salt and sodium nitrate and or sodium nitrite. The product shall be free from added colour, flavour and meat tenderizer. The packing medium and other ingredients shall be of food grade quality.

The product shall be packed in hermetically sealed clean and sound tin containers and subjected to adequate heat treatment followed by rapid cooling to ensure that the product is shelf stable. The sealed container shall not show any change on incubation at 350C for 10 days and 550C for 5 days.

The contents shall have characteristic colour, free from objectionable odour, discoloration and excessive disintegration.

The product shall conform to the following requirements, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total plate count	1000/ gram maximum
(2)	E.Coli	Absent in 25 gram
(3)	Salmonella	Absent in 25 gram
(4)	Staphylococcus aureus	Absent in 25 gram
(5)	Clostridium perfringens and Clostridium botulinum	Absent in 25 gram

7. FROZEN MUTTON, CHICKEN, GOAT AND BUFFALO MEAT means the product prepared from edible portion of meat of animals specified under these regulations including buffalo meat slaughtered in an abattoir, which have been subjected to ante-mortem and postmortem inspection.

The fresh meat meant for freezing shall be clean, free from any foreign matter, objectionable odour/flavour and evidence of deterioration. Meat shall be prepared by quickly freezing in an appropriate equipment in such a way that

the range of temperature of maximum crystallization is passed quickly and the product attains a temperature of - 180C or colder at the thermal centre after thermal stabilization. The product shall be kept deep frozen so as to maintain its quality during transportation, storage and sale.

The product shall conform to the following requirements, namely:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Plate Count	100000/ gram maximum
(2)	E.Coli	100/ gram maximum
(3)	Staphylococcus aureus	100/ gram maximum
(4)	Clostridium perfringens and Clostridium Botulinum	30/ gram maximum
(5)	Yeast and mould count	1000/ gram maximum
(6)	Salmonella	Absent in 25 gram
(7)	Listeria monocytogenes	Absent in 25 gram

**Fish and Fish Products:**

**Fish and Fish Products**

1. Frozen Shrimps or Prawns means the product prepared from fresh shrimps of sound quality belonging to Penaeidae, Pandalidae, Crangonidae, Palaemonidae Solenoceridae, Aristeidae and Sergestidae families. The product shall not contain a mixture of genera but may contain mixture of species of same genus with similar sensory properties. The product may be peeled or unpeeled, raw or cooked. The product may be glazed with water. The product shall conform to the following requirements:—

<i>S.No.</i>	<i>Characteristics</i>	<i>Requirements in RawProduct</i>	<i>Requirement in CookedProduct</i>
(1)	Total VolatileBase (Nitrogen)	Not more than 30 mg/100 gm	Absent in 25gm

2. Frozen Lobsters means the product prepared from fresh lobsters of sound quality belonging to the genus Homarus of the family Nephropidae and from the families Palinuridae and Scyllaride. The Norway Lobster may be prepared from Nephros norvegicus. The product shall not be a mixture of different species. The product may be raw or cooked. The product may be glazed with water. The product shall conform to the following requirements:—

<i>S.No.</i>	<i>Characteristics</i>	<i>Requirements in RawProduct</i>	<i>Requirement in CookedProduct</i>
(1)	Total VolatileBase (Nitrogen)	Not more than 30 mg/100 gm	Absent in 25gm

3. Frozen squid and parts of squid means the product prepared from fresh squid of sound quality belonging to squid species of Loliginidae, Ommastrephidae Onychoteuthide and Thysanotenthidae families. The product may be glazed with water. No food additive is allowed in this product. The product shall conform to the following requirements:

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total VolatileBase (Nitrogen)	Not more than 30 mg/100 gm

4. Frozen finfish means the product prepared from fresh fish of good quality. The product may be with or without head from which viscera or other organs have been completely or partially removed. The product may be glazed with water. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total VolatileBase (Nitrogen)	Not more than 30 mg/ 100gm
(2)	Histamine	Not more than 20 mg/ 100gm

5. Frozen fish fillets or minced fish flesh or mixtures thereof are products obtained from fresh wholesome fish of any species or mixtures of species with similar-sensory properties. Fillets may be pieces of irregular size and shape with or without skin. Minced fish flesh consists of particles of skeletal muscle". and is free from bones, viscera and skin. The product may be glazed with water. The products shall conform to the following requirement:-



<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Volatile Base (Nitrogen)	Not more than 30 mg/ 100gm
(2)	Histamine	Not more than 20 mg/ 100gm

Note I: Products under article 1, 2, 3, 4 AND 5 shall be frozen in an appropriate equipment quickly to minus (-) 18° C or colder in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless the product temperature has reached minus (-) 18° C or colder at the thermal centre after thermal stabilization. The product shall be kept deep frozen so as to maintain the quality during transportation, storage and sale. The entire operation including processing and packaging shall ensure minimum dehydration and oxidation. The product may contain food additives permitted in Appendix A except listed product under regulation 2.6.1 (3). The product shall conform to the microbiological requirement given in Appendix B. The products shall be free from any foreign matter and objectionable odour/flavour.

6. Dried shark fins means the product prepared from dorsal and pectoral fins, lower lobe of caudal fin and Pelvic from fresh shark of edible quality. The product shall be free from adhering flesh and may be with or without skin. The product shall be dried in a suitable manner and shall be free from any food additive. The product shall be free from foreign matter, objectionable odour or flavour and rancidity. No food additive is allowed in this product. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Moisture	Not more than 10.0 percent
(2)	Ash insoluble in HCl on dry basis	Not more than 1.0 percent
(3)	Yeast and Mould Count	Absent in 25gm

7. Salted fish/dried salted fish means the product prepared from fresh wholesome fish. The fish shall be bled, gutted, beheaded, split or filleted and washed. The fish shall be fully saturated with salt (Heavy salted) or partially saturated to a salt content not less than 10 percent by weight of the salted fish which has been dried. The product shall be free from foreign matter, objectionable odour and flavour. The product may contain food additives permitted in Appendix A. The product shall conform to the microbiological requirement given in Appendix B. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Moisture	Not more than 16.0 percent
(2)	Sodium chloride	Not less than 10.0 percent and not more than 15.0 percent
(3)	Ash insoluble in HCl on dry basis	Not more than 1.0 percent
(4)	Yeast and Mould Count	Absent in 25gm

8. Canned finfish means the product prepared from the flesh of fresh finfish of sound quality belonging to any one species or mixture of species within the same genus having similar sensory properties. The product shall be free from head, tail and viscera. The product may be packed in any suitable packing medium. The packing medium and other ingredients used shall be of food grade quality. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Histamine Content	Not more than 20 mg/100 gm
(2)	Total Volatile Base (Nitrogen)	Not more than 30mg/ 100gm

9. Canned Shrimp means the product prepared from fresh shrimp of sound quality from any combination of species of families Penaeidae, Pandalide, Crangonidae and Palaemonidae from which heads, shell and antenna have been removed. The product may be in the form of peeled shrimps which have been headed and peeled without removal of the dorsal tract or cleaned and deveined shrimps in which the back is cut open after peeling and dorsal

tract has been removed upto the last segment next to the tail or broken shrimps consisting of pieces of peeled shrimp of less than four segments with or without the vein removed. The packing medium and other ingredients shall be of food grade quality. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Volatile Base (Nitrogen)	Not more than 30 mg/100 gm
(2)	Acidity in brine expressed as Citric Acid	Not more than 0.2 percent

10. Canned sardines or sardine type products means, the product prepared from fresh or frozen fish belonging to *Sardinia pilchardus*, *Sardinia milanostrictus*, *neopilchardus*, *ocellatus*, *sagax*, *caeruleus*, *Sardinia aurita*, *brasiliensis*, *maderensis*, *longiceps*, *gibbosa*, *celupea*, *harengus*, *Sprattus sprattus*, *Hypertophus vittatus*, *Nematolosaviaminghi*, *Etrumeus tesus*, *Ethmedium maculatun*, *Engranulis anchoita*, *mordax*, *ringens* and *opisthonema oglinum*.

The product shall be free from head and gills. It may be free from scales and or tail. The fish may be eviscerated. If eviscerated it shall be practically free from visceral parts other than roe milt or kidney. If ungutted it shall be practically free from undigested feed or used feed. The product shall be packed in any suitable medium. The packing medium and all other ingredients shall be of food grade quality. The products shall also conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Histamine Content	Not more than 20 mg/100 gm
(2)	Total Volatile Base (Nitrogen)	Not more than 30mg/100 gm

11. Canned salmon means the product prepared from fresh fish of sound quality belonging to any of the species of *Salmosalar* or *Oncorhynchus nerka*, *kisutchi*, *tshawytscha*, *gorboscha*, *ketax* and *masou* species. The product shall be free from head, viscera, fins and tails. The product shall be packed in any suitable medium. The packing medium and all other ingredients shall be of food grade quality. No food additive is allowed in this product. The product shall conform to the following requirement.

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements in Raw Product</i>
(1)	Total Volatile Base (Nitrogen)	Not more than 30 mg/100 gm

12. Canned crab meat means the product prepared from live crabs of sound quality from any of the edible species of the suborder *Branchyura* or the order *Decapoda* and all species of the family *Lithodiadae*. The product shall be prepared singly or in combination from the leg, claw, body and shoulder meat from which the shell has been removed. The product shall be packed in any suitable medium. The packing medium and all other ingredients shall be of food grade quality. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Total Volatile Base (Nitrogen)	Not more than 30mg/100 gm
(2)	Acidity in brine expressed as Citric Acid	Not less than 0.06 percent and Not more than 0.2 percent

13. Canned Tuna and Bonito means the product prepared from fresh fish of sound quality belonging to *Thunnus alalunga*, *albacares*, *atlanticus*, *obessul*, *maccoyii*, *thynnus*, *tongoe*, *Euthynnus affinis*, *alleteratus*, *Jinlatus*, *Sarda chilentis*, *orientalis*, *Sarda* and *Katsuwonus pelamis* (syn *Euthynnus pelamis*) species. The product may be in the form of segments with or without skin, chunks, flakes or grated / shredded particles. The product shall be packed in any suitable medium. The packing medium and all other ingredients shall be of food grade quality. The products shall conform to the following requirements:—

<i>Sl. No.</i>	<i>Characteristics</i>	<i>Requirements</i>
(1)	Histamine Content	Not more than 20mg/100 gm
(2)	Total Volatile Base (Nitrogen)	Not more than 30mg/100 gm

Note II: All the product listed under articles 8, 9, 10, 11, 12 and 13 shall be packed in hermetically sealed clean and sound containers and subjected to adequate heat treatment followed by rapid cooling to ensure commercial sterility. The container shall be free from rust and mechanical defects. The container shall not show any change or

incubation at 37°C for 7 days. The final product shall be free from foreign matter, objectionable odour, or flavour. The products may contain food additives permitted in Appendix A except products listed under regulation 2.6.1 (11). The product shall conform to the microbiological requirement given in Appendix B.

Note- Without prejudice to the standards laid down in this Appendix, whenever water is used in the manufacture or preparation of any article of food, such water shall be free from micro-organisms likely to cause disease and also free from chemical constituents which may impair health.

#### SWEETS & CONFECTIONERY:

##### Sugar boiled confectionery:

Sugar boiled confectionery whether sold as hard boiled sugar confectionery or pan goods confectionery or toffee or milk toffee or modified toffee or lacto-bon-bon or by any other name shall mean a processed composite food article made from sugar with or without doctoring agents such as cream of tartar by process of boiling whether panned or not. It may contain centre filling, or otherwise, which may be in the form of liquid, semi-solid or solids with or without coating of sugar or chocolate or both. It may also contain any of the following:—

- (i) sweetening agents such as sugar, invert sugar, jaggery, lactose, gur, bura sugar, khandsari, sorbitol, honey, liquid glucose;
- (ii) milk and milk products;
- (iii) edible molasses;
- (iv) malt extracts;
- (v) edible starches;
- (vi) edible oils and fats;
- (vii) edible common salts;
- (viii) fruit and fruit products and nut and nut products;
- (ix) tea extract, coffee extract, chocolate, cocoa;
- (x) vitamins and minerals;
- (xi) shellac (food grade) not exceeding 0.4 per cent by weight bee wax (food grade), paraffin wax food grade, carnauba wax (food grade), and other food grade wax or any combination thereof;
- (xii) edible desiccated coconut;
- (xiii) spices and condiments and their extracts;
- (xiv) candied peels;
- (xv) enzymes;
- (xvi) permitted stabilizing and emulsifying agents;
- (xvii) edible foodgrains; edible seeds;
- (xviii) baking powder;
- (xix) gulkand, gulabanaafsha, mulathi;
- (xx) puffed rice;
- (xxi) china grass;
- (xxii) eucalyptus oil, camphor, menthol oil crystals, pepper mint oil;
- (xxiii) thymol;
- (xxiv) edible oil seed flour and protein isolates;
- (xxv) gum arabic and other edible gum.

It shall also conform to the following standards, namely:—

- |  |                   |                     |
|--|-------------------|---------------------|
| (i) Ash sulphated (on salt free basis) | Not more than 2.5 | per cent by weight. |
|--|-------------------|---------------------|

Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash sulphated shall not be more than 3 per cent by weight.

(ii) Ash insoluble (in dilute Hydrochloric acid) Not more than 0.2 Per cent by weight.

Provided that in case of sugar boiled confectionery where spices are used as centre filling, the ash insoluble in dilute Hydrochloric acid shall not be more than 0.4 per cent.

Where the sugar boiled confectionery is sold under the name of milk toffee and butter toffee, it shall conform to the following additional requirements as shown against each;

(1) Milk toffee-

(i) Total protein (N x 6.25) shall not be less than 3 per cent by weight on dry basis.

(ii) Fat content shall not be less than 4 per cent by weight on dry basis.

(2) Butter toffee- fat content shall not be less than 4 per cent by weight on dry basis.

Provided that it may contain food additives permitted in these regulations including appendix 'A'.

Provided further that if artificial sweetener has been added as provided in Regulation 3.1.3, it shall be declared on the label as provided in regulation 3.1.3, it shall be declared on the label as provided in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

: Lozenges:

Lozenges shall mean confections made mainly out of pulverised sugar, or icing sugar with binding materials such as edible gums, edible gelatine, liquid glucose or dextrin and generally made from cold mixing which does not require primary boiling or cooking of the ingredients. It may contain any of the following:—

- (i) sweetening agents such as dextrose, dextrosemonohydrate, honey, invert sugar, sugar, jaggery, bura sugar, khandsari, sorbitol, liquid glucose;
- (ii) milk and milk products;
- (iii) nuts and nuts products;
- (iv) malt syrup;
- (v) edible starches;
- (vi) edible common salt;
- (vii) ginger powder or extracts;
- (viii) cinnamon powder or extracts;
- (ix) aniseed powder or extracts;
- (x) caraway powder or extracts;
- (xi) cardamom powder or extracts;
- (xii) cocoa powder or extracts;
- (xiii) protein isolates;
- (xiv) coffee-extracts or its flavour;
- (xv) permitted colouring matter;
- (xvi) permitted emulsifying and stabilizing agents
- (xvii) vitamins and minerals;

It shall also conform to the following standards:

- |   |  |
|---|--|
| (i) Sucrose content                             | Not less than 85.0 per cent by weight. |
| (ii) Ash Sulphated (salt free basis)            | Not more than 3.0 percent by weight    |
| (iii) Ash insoluble in dilute Hydrochloric acid | Not more than 0.2 per cent by weight   |

The product may contain food additives permitted in these regulations including Appendix A.

Provided that if artificial sweetener has been added in the product as provided in the regulation 3.1.3, it shall be declared on the label as provided in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided further that if only permitted artificial sweetener is used in the products as sweetener, the requirement for sucrose prescribed in these standards shall not be applicable to such products.

: Chewing gum and bubble gum

Chewing gum and bubble gum shall be prepared from chewing gum base, or bubble gum base, natural or synthetic, non-toxic; cane sugar and liquid glucose (corn syrup).

The following sources of gum base may be used:—

- (1) Babul, Kikar (gum Arabic)
- (2) KHAIR
- (3) Jhingan (Jael)
- (4) Ghatti
- (5) Chiku (Sapota)
- (6) Natural rubber latex
- (7) Synthetic rubber latex
- (8) Glycerol ester of wood resin
- (9) Glycerol ester of gum resin
- (10) Synthetic resin
- (11) Glycerol ester or partially hydrogenated gum or wood resin.
- (12) Natural resin
- (13) Polyvinyl acetate
- (14) Agar (food grade)

It may also contain any of the following ingredients, namely:—

- (a) Malt
- (b) Milk powder
- (c) Chocolate
- (d) Coffee
- (e) Gelatin, food grade
- (f) Permitted Emulsifiers
- (g) Water, potable
- (h) Nutrients like Vitamins, minerals, proteins

It shall be free from dirt, filth, adulterants and harmful ingredients. it shall also conform to the following standards, namely:—

<i>Ingredients</i>	<i>Chewing gum</i>	<i>Bubble gum</i>
(i) Gum	Not less than 12.5 per cent by weight	Not less than 14.0 per cent by weight
(ii) Moisture	Not more than 3.5 per cent by weight	Not more than 3.5 per cent by weight
(iii) Sulphated Ash	Not more than 9.5 per cent by weight.	Not more than 11.5 per cent by weight.
(iv) Acid insoluble ash	Not more than 2.0 per cent by weight.	Not more than 3.5 per cent by weight.
(v) Reducing sugars (calculated as dextrose)	Not less than 4.5 per cent by weight.	Not less than 5.5 per cent by weight.
(vi) Sucrose	Not more than 70.0 per cent by weight.	Not more than 60.0 percent by weight.

Provided that it may contain food additives permitted in and these regulations Including Appendix A

Provided further, if artificial sweetener has been added as provided in Regulation 3.1.2 (1), it shall be declared on the label as provided in Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided also, that, if only artificial sweetener is added in the product as sweeteners the parameters namely, reducing sugars and sucrose prescribed in the table above shall not be applicable to such product

:Chocolate

Chocolate means a homogeneous product obtained by an adequate process of manufacture from a mixture of one or more of the ingredients, namely, cocoa beans, cocoa nib, cocoa mass, cocoa press cake and cocoa dust (cocoa fines/powder), including fat reduced cocoa powder with or without addition of sugars, cocoa butter, milk solids including milk fat The chocolates shall not contain any vegetable fat other than cocoa butter.

The material shall be free from rancidity or off odour, insect and fungus infestation, filth, adulterants and any harmful or injurious matter.

The chocolates shall be of the following types:—

Milk chocolates is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low-fat cocoa powder with sugar and milk solids including milk fat and cocoa butter.

Milk Covering Chocolate - as defined above, but suitable for covering purposes.

Plain Chocolate is obtained from one or more of cocoa nib, cocoa mass, cocoa press cake, cocoa powder including low fat cocoa powder with sugar and cocoa butter.

Plain Covering Chocolate-same as plain chocolate but suitable for covering purposes. Blended

Chocolate means the blend of milk and plain chocolates in varying proportions. White chocolate

is obtained from cocoa butter, milk solids, including milk fat and sugar.

Filled Chocolates means a product having an external coating of chocolate with a centre clearly distinct through its composition from the external coating, but does not include flour confectionery pastry and biscuit products. The coating shall be of chocolate that meets the requirements of one or more of the chocolate types mentioned above. The amount of chocolate component of the coating shall not be less than 25 per cent of the total mass of the finished product.

Composite Chocolate-means a product containing at least 60 per cent of chocolate by weight and edible wholesome substances such as fruits, nuts. It shall contain one or more edible wholesome substances which shall not be less than 10 per cent of the total mass of finished product.

Provided that it may contain artificial sweeteners as provided in regulation 3.1.3 and label declaration as provided under Regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided further that in addition to the ingredients mentioned above, the chocolate may contain one or more of the substances as outlined below, under different types of chocolates.

- (a) edible salts
- (b) spices and condiments
- (c) permitted emulsifying and stabilizing agents
- (d) permitted sequestering and buffering agents.

The product may contain food additives permitted in these regulations including Appendix A.

Chocolates shall also conform to the following standards namely:—

Sl. No.	Characteristics	Requirements for					
		Milk Chocolate	Milk Covering Chocolate	Plain Chocolate	Plain Covering Chocolate	White Chocolate	Blended Chocolate
1.	Total fat (on dry basis) per cent by weight. Not less than	25	25	25	25	25	25
2.	Milk fat (on dry basis) Percent by weight. Not less than	2	2	-	-	2	—
3.	Cocoa solids (on Moisture-free and fat free basis) percent by weight Not less than	2.5	2.5	12	12	-	3.0
4.	Milk Solids (on Moisture-free and fat-free basis) percent by weight.						
	a) Not less than	10.5	10.5	-	-	10.5	1
	b) Not more than	-	-	-	-	-	9
5.	Acid insoluble ash (on moisture fat and sugar free basis) percent by weight. Not more than	0.2	0.2	0.2	0.2	0.2	0.2

#### : ICELOLLIES OR EDIBLE ICES

1. "ICE LOLLIES OR EDIBLE ICES" means the frozen ice produce which may contain sugar, syrup, fruit, fruit juices, cocoa, citric acid, permitted flavours and colours. It may also contain permitted stabilizers and/or emulsifiers not exceeding 0.5 per cent by weight. It shall not contain any artificial sweetener.

Ice Candy means the product obtained by freezing a pasteurized mix prepared from a mixture of water, nutritive sweeteners e.g. sugar, dextrose, liquid glucose, dried liquid glucose, honey, fruits and fruit products, coffee, cocoa, ginger, nuts and salt. The product may contain food additives permitted in these Regulations and Appendices. It shall conform to the microbiological requirements prescribed in Appendix B. It shall conform to the following requirement:—

Total sugars expressed as Sucrose ... Not less than 10.0 percent 2.8:

Sweetening agents including Honey

#### : SUGAR

1. PLANTATION WHITE SUGAR (commonly known as sugar) means the crystallised product obtained from sugarcane or sugar beet. It shall be free from dirt, filth, iron filings, and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- (a) Moisture (when heated at 105 degree  $\pm$  1° degree C for 3 hours) Not more than 0.5 per cent by weight.  
 (b) Sucrose Not less than 98 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

2. REFINED SUGAR means the white crystallised sugar obtained by refining of plantation white sugar. It shall be free from dirt, filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- (a) Moisture (when heated at 105<sup>0</sup>  $\pm$  1<sup>0</sup>C for 3 hours) Not more than 0.5 per cent by weight.  
 (b) Sucrose Not less than 99.5 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

3. KHANDSARI SUGAR obtained from sugarcane juice by open pan process may be of two varieties, namely:

- (i) Khandsari Sugar Desi; and
- (ii) Khandsari Sugar (sulphur) also known as "Sulphur Sugar".

It may be crystalline or in powder form. It shall be free from dirt, filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.25 per cent by weight. It may contain sodium bicarbonate (food grade). It shall also conform to the following standards, namely:—

	<i>Khandsari Sugar (Sulphur Sugar)</i>	<i>Khandsari Sugar (Desi)</i>
(i) Moisture (when heated 105° ± 1° C for 3 hours)	Not more than 1.5 per cent by weight.	Not more than 1.5 per cent at by weight.
(ii) Ash insoluble in dilute hydrochloric acid	Not more than 0.5 per cent by weight	Not more than 0.7 per cent by weight.
(iii) Sucrose	Not less than 96.5 per cent by weight.	Not less than 93.0 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

NOTE: - Khandsari sugar can be distinguished from plantation white sugar on the following characteristics, namely:

	<i>Khandsari Sugar (Sulphur Sugar)</i>	<i>Khandsari Sugar (Desi)</i>
(i) Conductivity (106 mho/cm <sup>2</sup> )	100-300 in 5% solution at 30°C	Not more than 100 in 5% solution at 30°C
(ii) Calcium oxide (mg/100gms)	Not more than 100	Not more than 50

The product may contain food additives in Appendix A

4. BURA SUGAR means the fine grain size product made out of any kind of sugar. It shall be free from dirt, filth, iron filing and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- (a) Sucrose Not less than 90.0 per cent by weight.
- (b) Ash insoluble in dilute hydrochloric acid Not more than 0.7 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

5. CUBE SUGAR means the sugar in the form of cube or cuboid blocks manufactured from refined crystallised sugar. It shall be white in colour, free from dirt and other extraneous contamination. It shall conform to the following standards :—

- (a) Sucrose Not less than 99.7 per cent by weight.
- (b) Moisture Not more than 0.25 per cent by weight.
- (c) Total ash Not more than 0.03 per cent by weight

The product may contain food additives permitted in these Regulations and Appendices.

6. ICING SUGAR means the sugar manufactured by pulverizing refined sugar or vacuum pan (plantation white) sugar with or without edible starch. Edible starch, if added, shall be uniformly extended in the sugar. It shall be in form of white powder, free from dust, or any other extraneous matter.

The product may contain food additives permitted in these Regulations and Appendices. It shall conform to the following standards:—

- (a) Total starch and sucrose (moisture free) Not less than 99.0 per cent by weight.
- (b) Moisture Not more than 0.80 per cent by weight.
- (c) Starch Not more than 4.0 percent by weight on dry basis.



## : MISRI

1. MISRI means the product made in the form of candy obtained from any kind of sugar or palmyrah juice. It shall be free from dirt filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- |   |                               |
|---|-------------------------------|
| (a) Total ash   | Not more than 0.4% by weight  |
| (b) Total Sugar (Called, known or expressed as Sucrose) | Not less than 98.0% by weight |

The product may contain food additives permitted in these Regulations and Appendices.

## : "HONEY"

1. HONEY means the natural sweet substance produced by honey bees from the nectar of blossoms or from secretions of plants which honey bees collect, transform store in honey combs for ripening.

When visually inspected, the honey shall be free from any foreign matter such as mould, dirt, scum, pieces of beeswax, the fragments of bees and other insects and from any other extraneous matter.

The colour of honey vary from light to dark brown. Honey shall conform to the following standards, namely:—

- |  |                                     |
|--|-------------------------------------|
| (a) Specific gravity at 27°C             | Not less than 1.35                  |
| (b) Moisture                             | Not more than 25 per cent by mass   |
| (c) Total reducing sugars                | Not less than 65.0 per cent by mass |
| (i) for Carbia colossa and Honey dew     | Not less than 60 per cent by mass   |
| (d) Sucrose                              | Not more than 5.0 per cent by mass  |
| (i) for Carbia colossa and Honey dew     | Not more than 10 per cent by mass   |
| (e) Fructose-glucose ratio               | Not less than 0.95 per cent by mass |
| (f) Ash                                  | Not more than 0.5 per cent by mass  |
| (g) Acidity (Expressed as formic acid)   | Not more than 0.2 per cent by mass  |
| (h) Fiehe's test                         | Negative                            |
| (i) Hydroxy methyl furfural (HMF), mg/kg | Not more than 80                    |

If Fiehe's test is positive, and hydroxy methyl furfural (HMF) content is more than 80 milligram/kilogram then fructose glucose ratio should be 1.0 or more.

## : GUR OR JAGGERY

1. GUR OR JAGGERY means the product obtained by boiling or processing juice pressed out of sugarcane or extracted from palmyra palm, date palm or coconut palm. It shall be free from substances deleterious to health and shall conform to the following analytical standards, on dry weight basis :-

- |  |   |
|--|---|
| Total sugars expressed as invert sugar   | Not less than 90 percent and sucrose not less than 60 percent |
| Extraneous matter insoluble in water     | Not more than 2 per cent.                                     |
| Total ash                                | Not more than 6 per cent                                      |
| Ash insoluble in hydrochloric acid (HCl) | Not more than 0.5 per cent                                    |

Gur or jaggery other than that of the liquid or semi liquid variety shall not contain more than 10% moisture. The product may contain food additives permitted in these Regulations and Appendices.

Sodium bicarbonate, if used for clarification purposes, shall be of food grade quality.

## : DEXTROSE

1. DEXTROSE is a white or light cream granular powder, odourless and having a sweet taste.

When heated with potassium cupritartrate solution it shall produce a copious precipitate of cuprous oxide. It shall conform to the following standards:—

Sulphated ash	Not more than 0.1 per cent on dry basis
Acidity	0.5 gm. Dissolved in 50 ml. of freshly boiled and cooled water requires for neutralisation not more than 0.20 ml. of N/10 sodium hydroxide to phenolphthalein indicator.
Glucose	Not less than 99.0 per cent on dry basis.

The product may contain food additives permitted in these Regulations and Appendices.

:GOLDEN SYRUP

1. GOLDEN SYRUP means the syrup obtained by inversion of sugar. It shall be golden yellow in colour, pleasant in taste and free from any crystallisation.

It shall conform to the following standards:—

Moisture	Not more than 25.0 per cent by weight
Total Ash	Not more than 2.5 per cent by weight
Total Sugar as invert sugar	Not less than 72.0 per cent by weight

The product may contain food additives permitted in these regulations including Appendix A. Sodium bicarbonate, if used, for clarification purposes, shall be of Food Grade Quality.

DRIED GLUCOSE SYRUP means the material in the form of coarse or fine, white to creamish white powder, sweet to taste, bland in flavour and somewhat hygroscopic. It shall be free from fermentation, evidence of mould growth, dirt or other extraneous matter or added sweetening or flavouring agent.

It shall also not contain any added natural or coal-tar food colour. It shall conform to the following standards:—

Total solid contents	Not less than 93.0 per cent by weight.
Reducing sugar content	Not less than 20.0 per cent by weight.
Sulfated Ash	Not more than 1.0 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

:SACCHARIN SODIUM

1. SACCHARIN SODIUM commonly known as soluble Saccharin having an empirical formula as  $C_7H_4NNaO_3S \cdot 2H_2O$  and molecular weight as 241.2 shall be the material which is soluble at 20°C in 1.5 parts of water and 50 parts of alcohol (95 per cent); and shall contain not less than 98.0 per cent and not more than the equivalent of 100.5 per cent of  $C_7H_4O_3NSNa$  calculated with reference to the substance dried to constant weight at 105°C, assay being carried out as presented in Indian Pharmacopoeia. It shall not contain more than 2 p.p.m. of arsenic and 10 p.p.m. of lead. The melting point of Saccharin isolated from the material as per Indian Pharmacopoeia method shall be between 226°C and 230°C. The loss on drying of the material at 105°C shall not be less than 12.0 per cent and not more than 16.0 per cent of its weight.

The material shall satisfy the tests of identification and shall conform to the limit tests for free acid or alkali, ammonium compounds and parasulphamoylbenzoate as mentioned in the Indian Pharmacopoeia.

:ASPARTYL PHENYLALANINE METHYL ESTER (ASPERTAME)

1. Aspartyl Phenyl Alanine Methyl Ester commonly known as Aspartame, having empirical formula as  $C_{14}H_{18}N_2O_5$  and molecular weight as 294.31 shall be the material which is slightly soluble in water and Methanole. It shall contain not less than 98 per cent and not more than 102 per cent of Aspartame on dried basis. It shall not contain more than 3 ppm of Arsenic and 10 ppm of Lead.

The loss on drying of the material at 105°C for 4 hours shall not be more than 4.3 per cent of its weight. The sulphate ash shall not be more than 0.2 per cent. It shall not contain more than 1 per cent of diketo-piperazine.

## : Acesulfame Potassium

1. Acesulfame Potassium commonly known as Acesulfame-K, having empirical formula  $C_4H_4KNO_4S$ , molecular weight as 201.24 shall be the material which is odourless, white crystalline powder having intensely sweet taste and is very slightly soluble in ethanol but freely soluble in water. It shall contain not less than 99 per cent and not more than 101 per cent of Acesulfame-K on dried basis. It shall not contain more than 3 ppm. Fluoride. Heavy metals content shall not be more than 10 ppm. The loss on drying of material at 105 degree centigrade for two hours shall not be more than 1 percent of its weight.

## : Sucralose

## 1. Sucralose:

Chemical name- 1,6-Dichloro-1,6-Dideoxy- $\beta$ -D-Fructofuranosyl-4-Chloro-4-Deoxy- $\alpha$ -D-galactopyranoside;

Synonyms -4,1 '6'-Trichlorogalactosucrose; INS 955

Chemical formula -  $C_{12}H_{19}Cl_3O_8$

Molecular weight- 397.64

It shall be white to off-white, odourless, crystalline powder, having a sweet taste. It shall be freely soluble in water, in methanol and in alcohol and slightly soluble in ethyl acetate. It shall contain not less than 98.0% and not more than 102.0% of  $C_{12}H_{19}Cl_3O_8$  calculated on anhydrous basis. It shall not contain more than 3PPM of Arsenic (as AS) and 10PPM or heavy metals (as Pb). It shall not contain more than 0.1% of methanol. Residue on ignition shall not be more than 0.7% and water not more than 0.2%.

## : SALT, SPICES, CONDIMENTS AND RELATED PRODUCTS

Note: (1) The extraneous matter wherever prescribed, shall be classified as follows:

- a. Organic extraneous matter such as chaff, stems, straw
- b. Inorganic extraneous matter such as dust, dirt, stones and lumps of earth. This shall not exceed 2 percent by weight of the total Extraneous matter

(a) All the Spices, condiments and related products from 2.9.1 to 2.9.29 shall conform to the microbiological requirements given in table 3 of Appendix B.

## : Caraway (Siahjira):

1. (Siahjira) whole means the mericarps of nearly mature fruit of *Carum carvi* L. The fruits are split into two mericarps by thrashing after drying. It shall have characteristic flavour and shall be free from extraneous flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. It shall be free from attack by *Sclerotinia* mushrooms. It shall be free from added colouring matter and other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Moisture	Not more than 13.0 percent by weight
(iii) Total ash on dry basis	Not more than 8.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis.	Not more than 1.5 percent by weight
(v) Volatile oil content on dry basis	Not less than 2.5 percent by (v/w).
(vi) Insect damaged matter	Not more than 1.0 percent by weight

Blond Caraway (*Carum carvi*) whole is slightly larger and its colour is paler.

2. Caraway Black (Siahjira) Whole means the dried seeds of *Carum bulbocastanum*. It shall conform to the following standards.

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Moisture	Not more than 12.0 percent by weight
(iii) Total ash on dry basis	Not more than 9.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 1.5 percent by (v/w)
(vi) Insect damaged matter	Not more than 1.0 percent by weight

1. Caraway (Siahjira) powder means the powder obtained by grinding the dried mature fruit of *Carum Carvi* L. without addition of any other matter. It may be in the form of small pieces of seeds or in finely ground form. It shall have characteristic flavour and shall be free from extraneous flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter and other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 12.0 percent by weight
(ii) Total ash on dry basis	Not more than 8.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
(iv) Volatile oil content on dry basis Black	Not less than 2.25 percent by v/w
Blond	Not less than 1.33 percent by v/w

: Cardamom (Elaichi)

1. Cardamom (Chhoti Elaichi) Whole means the dried capsules of nearly ripe fruits of *Elettaria cardamomum* L. Maton Var. *Minuscula* Burkill. The capsules may be light green to brown or pale cream to white when bleached with sulphur dioxide. It shall have characteristic flavour free from any foreign odour, mustiness or rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. Thrip marks alone should not lead to the conclusion that the capsules have been infested with insects. The product shall be free from added colouring matter and other harmful substances.

It shall conform to the following standards:

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Empty and malformed capsules by count	Not more than 3.0 percent by count
(iii) Immature and shrivelled capsules	Not more than 3.0 percent by weight
(iv) Moisture	Not more than 13.0 percent by weight
(v) Total ash on dry basis	Not more than 9.5 percent by weight
(vi) Volatile oil content on dry basis	Not less than 3.5 percent by v/w
(vii) Insect damaged matter	Not more than 1.0 percent by weight

2. Cardamom (Chhoti Elaichi) seeds means the decorticated seeds separated from the dried capsules of nearly ripe fruits of *Elettaria Cardamomum* L. Maton var *miniscula* Burkill. The seeds shall have characteristic flavour free from foreign odour, mustiness or rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Light seeds	Not more than 3.0 percent by weight
(iii) Moisture	Not more than 13.0 percent by weight
(iv) Total ash on dry basis	Not more than 9.5 percent by weight
(v) Volatile oil content on dry basis	Not less than 3.5 percent by v/w
(vi) Insect damaged matter	Not more than 1.0 percent by weight

Explanation :- Light seeds mean seeds that are brown or red in colour and broken immature and shrivelled seeds.

3. Cardamom (Chhoti Elaichi) powder means the powder obtained by grinding dried seeds of *Elettaria Cardamomum* L. Maton var *miniscula* Burkill without addition of any other substance. It may be in the form of small pieces of seeds or in finely ground form. It shall have characteristic flavour free from foreign odour, mustiness or rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter and other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 11.0 percent by weight
(ii) Total ash on dry basis	Not more than 8.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis.	Not more than 3.0 percent by weight
(iv) Volatile oil content on dry basis	Not less than 3.0 percent by v/w.

4. Large Cardamom (Badi Elaichi) whole means the dried nearly ripe fruit (capsule) of *Amomum subulatum* Roxb. The capsule shall have characteristic flavour free from foreign odour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any harmful substance.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Empty and malformed capsules by count	Not more than 2.0 percent by count
(iii) Immature and shrivelled capsules	Not more than 2.0 percent by weight
(iv) Moisture	Not more than 12.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(vi) Total ash on dry basis	Not more than 8.0 percent by weight
(vii) Volatile oil content of seeds on dry basis	Not less than 1.0 percent by v/w.
(viii) Insect damaged matter	Not more than 1.0 percent by weight

5. Large Cardamom (Badi Elaichi) seeds means the seeds obtained by decortication of capsules of *Amomum subulatum* Roxb. It shall have characteristic flavour free from foreign odour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Light seeds / Brown / Red seeds	Not more than 3.0 percent by weight
(iii) Moisture	Not more than 12.0 percent by weight
(iv) Total ash on dry basis	Not more than 8.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(vi) Volatile oil content on dry basis	Not less than 1.0 percent by v/w
(vii) Insect damaged matter	Not more than 1.0 percent by weight.

6. Large Cardamom (Badi Elaichi) powder means the powder obtained by grinding seeds of *Amomum subulatum* Roxb, without the addition of any other substance. It may be in the form of small pieces of seeds or in finely ground form. The powder shall have characteristic flavour free from off flavour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter and any harmful substance.

It shall conform to the following standards:—

(i) Moisture	Not more than 11.0 percent by weight
(ii) Total ash on dry basis	Not more than 8.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(iv) Volatile oil content on dry basis	Not less than 1.0 percent by weight

: Chillies and Capsicum (Lal Mirchi)

1. Chillies and Capsicum (Lal Mirchi) whole - means the dried ripe fruits or pods of the *Capsicum annum* L & *Capsicum frutescens* L. The pods shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from extraneous colouring matter, coating of mineral oil and other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Unripe and marked fruits	Not more than 2.0 percent by weight
(iii) Broken fruits, seed & fragments	Not more than 5.0 percent by weight
(iv) Moisture	Not more than 11.0 percent by weight
(v) Total ash on dry basis	Not more than 8.0 percent by weight
(vi) Ash insoluble in dilute HCl on dry basis	Not more than 1.3 percent by weight
(vii) Insect damaged matter	Not more than 1.0 percent by weight

2. Chillies and Capsicum (Lal Mirchi) powder means the powder obtained by grinding clean ripe fruits or pods of *Capsicum annum* L and *Capsicum frutescens* L. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be dry, free from dirt, extraneous colouring matter, flavouring matter, mineral oil and other harmful substances. The chilli powder may contain any edible vegetable oil to a maximum limit of 2.0 percent by weight under a label declaration for the amount and nature of oil used.

It shall conform to the following standards:—

(i) Moisture	Not more than 11.0 percent by weight
(ii) Total ash on dry basis	Not more than 8.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 1.3 percent by weight
(iv) Crude fibre	Not more than 30.0 percent by weight
(v) Non-volatile ether extract on dry basis	Not less than 12.0 percent by weight

: Cinnamon (Dalchini)

1. Cinnamon (Dalchini) whole means the inner bark of trunks or branches of *Cinnamomum Zeylanicum* Blume. It shall have characteristic odour and flavour and shall be free from foreign flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter, foreign vegetable matter and other harmful substances.

It shall conform to the following standards:

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Moisture	Not more than 12.0 percent by weight
(iii) Total ash on dry basis	Not more than 7.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 0.7 percent by v/w
(vi) Insect damaged matter	Not more than 1.0 percent by weight

2. Cinnamon (Dalchini) powder means the powder obtained by grinding inner bark of trunk or branches of *Cinnamomum Zeylanicum* Blume. The powder shall be yellowish to reddish brown in colour with characteristic odour and flavour and shall be free from off flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter, foreign vegetable matter and other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 12.0 percent by weight
(ii) Total ash on dry basis	Not more than 7.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight
(iv) Volatile oil content on dry basis	Not less than 0.5 percent by weight

## : Cassia (Taj)

1. Cassia (Taj) Whole means the bark of trees of *Cinnamomum Cassia* (Nees) ex Blume, *Cinnamomum aromaticum* (Nees) Syn, *Cinnamomum burmanii* (C.G. Nees) blume and *Cinnamomum loureini* Nees. The product shall have characteristic odour and flavour and shall be free from off flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter, foreign vegetable matter and other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Moisture	Not more than 12.0 percent by weight
(iii) Total ash on dry basis	Not more than 5.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis	Not more than 1.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 2.0 percent by v/w.

2. Cassia (Taj) powder means the powder obtained by grinding bark of trees of *Cinnamomum Cassia* (Nees) ex Blume, *Cinnamomum aromaticum* (Nees) Syn, *Cinnamomum burmanii* (CG Nees) Blume and *Cinnamomum loureini* Nees without addition of any other matter. The powder shall have characteristic odour and flavour and shall be free from off flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter, foreign vegetable matter and other harmful substances.

It shall conform to the following standards:

(i) Moisture	Not more than 12.0 percent by weight
(ii) Total ash on dry basis	Not more than 5.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 1.0 percent by v/w
(iv) Volatile oil content on dry basis	Not less than 1.5 percent by weight

## : Cloves (Laung)

1. Cloves (Laung) Whole means the dried unopened flower buds of *Eugenia Caryophyllus* (C. Sprengel) Bullock and Harrison. It shall be of a reddish brown to blackish brown colour with a strong aromatic odour free from off flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. It shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Tendrils, Mother Cloves	Not more than 2.0 percent by weight
(iii) Khokar Cloves	Not more than 2.0 percent by weight
(iv) Moisture	Not more than 12.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 17.0 percent by v/w
(vi) Headless cloves	Not more than 2.0 percent by weight
(vii) Insect damaged cloves	Not more than 2.0 percent by weight

Explanation: (1) Headless Cloves: A Clove consisting of only the receptacle and sepals and which has lost the domed shaped head.

(2) Khoker Cloves: A Clove which has undergone fermentation as a result of incomplete drying as evidenced by its pale brown colour whitish mealy appearance and other wrinkled surface.

(3) Mother Cloves: A fruit in the form of a ovoid brown berry surmounted by four incurved sepals.

2. Cloves (Laung) powder means the powder obtained by grinding the dried unopened flower buds of *Eugenia Caryophyllus* (C. Sprengel) Bullock and Harrison without any addition. It shall be of a brown colour with a violet tinge and shall have a strong spicy aromatic odour free from off flavour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. It shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Moisture	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 7.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis.	Not more than 0.5 percent by weight
(iv) Volatile oil content on dry basis	Not less than 16.0 percent by v/w
(v) Crude Fibre	Not more than 13.0 percent by weight

: Coriander (Dhania)

1. Coriander (Dhania) whole means the dried mature fruits (seeds) of *Coriandrum sativum* L. It shall have characteristic aroma and flavour. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Split fruits	Not more than 10.0 percent by weight
(iii) Damaged / Discoloured fruits	Not more than 2.0 percent by weight
(iv) Moisture	Not more than 9.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 0.1 percent by v/w
(vi) Total ash on dry basis	Not more than 7.0 percent by weight
(vii) Ash insoluble in dilute HCl on dry basis.	Not more than 1.5 percent by weight
(viii) Insect damaged matter	Not more than 1.0 percent by weight

2. Coriander (Dhania) powder means the powder obtained by grinding clean, sound, dried mature fruits of *Coriandrum sativum* L. It shall be in the form of rough or fine powder. It shall have typical aroma and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination; the powder shall be free from added colour, starch, bleach or preservative.

It shall conform to the following standards:—

(i) Moisture	Not more than 9.0 percent by weight
(ii) Volatile oil content on dry basis	Not less than 0.09 percent by v/w
(iii) Total ash on dry basis	Not more than 7.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis.	Not more than 1.5 percent by weight

: Cumin (Zeera, Kalonji)

1. Cumin (Safed Zeera) whole means the dried mature fruits of *Cuminum Cyminum* L. It shall have characteristic aromatic flavour free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colour and harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 3.0 percent by weight
(ii) Broken fruits (Damaged, shrivelled, discoloured and immature seed)	Not more than 5.0 percent by weight
(iii) Moisture	Not more than 10.0 percent by weight
(iv) Total ash on dry basis	Not more than 9.5 percent by weight
(v) Ash insoluble in dilute HCl on dry basis.	Not more than 3.0 percent by weight
(vi) Non volatile ether extract on dry basis	Not less than 15.0 percent by weight
(vii) Volatile oil content on dry basis	Not less than 1.5 percent by v/w
(viii) Proportion of edible seeds other than cumin seeds	Absent
(x) Insect damaged matter	Not more than 1.0 percent by weight



2. Cumin (Safed Zeera) powder means the powder obtained by grinding the dried mature seeds of *Cuminum Cyminum* L. It shall have characteristic aromatic flavour free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colour and harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 9.5 percent by weight
(iii) Acid insoluble ash on dry basis	Not more than 1.5 percent by weight
(iv) Non volatile ether extract on dry basis	Not less than 15.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 1.3 percent by v/w

3. Cumin Black (Kalonji) whole means the seeds of *Nigella sativa* L. It shall have characteristic aromatic flavour free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colour and harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.5 percent by weight
(ii) Broken fruits (Damaged, shrivelled, discoloured and immature seed)	Not more than 5.0 percent by weight
(iii) Moisture	Not more than 10.0 percent by weight
(iv) Total ash on dry basis	Not more than 8.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
(vi) Non volatile ether extract on dry basis	Not less than 12.0 percent by weight
(vii) Volatile oil content on dry basis	Not less than 1.0 percent by v/w
(viii) Edible seeds other than cumin black	Not more than 2.0 percent by weight
(ix) Insect damaged matter	Not more than 1.0 percent by weight

4. Cumin Black (Kalonji) powder means the powder obtained by grinding the dried seeds of *Nigella sativa* L. It shall have characteristic aromatic flavour free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colour and harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 7.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
(iv) Volatile oil content on dry basis	Not less than 0.9 percent by v/w
(v) Non volatile ether extract on dry basis (ml/100gm)	Not less than 12.0 percent by weight

: Fennel (Saunf)

1. Fennel (Saunf) whole means the dried ripe fruit of *Foeniculum vulgare* P. Miller Var. *Vulgare*. It shall have characteristic flavour free from foreign odour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any harmful substance.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Defective seeds	Not more than 5.0 percent by weight
(iii) Moisture	Not more than 12.0 percent by weight
(iv) Total ash on dry basis	Not more than 10.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis.	Not more than 2.0 percent by weight

- |  |                                     |
|--|-------------------------------------|
| (vi) Volatile oil content on dry basis | Not less than 1.0 percent by v/w    |
| (vii) Edible seeds other than fennel   | Absent                              |
| (viii) Insect damaged matter           | Not more than 1.0 percent by weight |

2. Fennel (Saunf) powder means the powder obtained by grinding ripe fruits (seeds) of *Foeniculum Vulgare* P. Miller Var *Vulgare*. The powder shall have characteristic aromatic flavour free from off flavour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter and any harmful substance.

It shall conform to the following standards:—

- |   |                                      |
|---|--------------------------------------|
| (i) Moisture                                    | Not more than 12.0 percent by weight |
| (ii) Total ash on dry basis                     | Not more than 9.0 percent by weight  |
| (iii) Ash insoluble in dilute HCl on dry basis. | Not more than 2.0 percent by weight  |
| (iv) Volatile oil content on dry basis          | Not less than 1.0 percent by v/w     |

: Fenugreek (Methi)

1. Fenugreek (Methi) Whole means the dried mature seeds of *Trigonella foenum graecum* L. The seeds shall be free from any off flavour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colour, and other harmful substances.

It shall conform to the following standards:—

- |   |                                      |
|---|--------------------------------------|
| (i) Extraneous matter                         | Not more than 2.0 percent by weight  |
| (ii) Moisture                                 | Not more than 10.0 percent by weight |
| (iii) Total ash on dry basis                  | Not more than 5.0 percent by weight  |
| (iv) Ash insoluble in dilute HCl on dry basis | Not more than 1.5 percent by weight  |
| (v) Cold water soluble extract on dry basis   | Not less than 30.0 percent by weight |
| (vi) Edible seeds other than fenugreek        | Not more than 2.0 percent by weight  |
| (vii) Insect damaged matter                   | Not more than 1.0 percent by weight  |

2. Fenugreek (Methi) powder means the powder obtained by grinding the dried mature seeds of *Trigonella foenum graecum* L. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colour and other harmful substances.

It shall conform to the following standards:—

- |   |                                      |
|---|--------------------------------------|
| (i) Moisture                                    | Not more than 10.0 percent by weight |
| (ii) Total ash on dry basis                     | Not more than 5.0 percent by weight  |
| (iii) Ash insoluble in dilute HCl on dry basis. | Not more than 1.5 percent by weight  |
| (iv) Cold water soluble extract on dry basis    | Not less than 30.0 percent by weight |

: Ginger (Sonth, Adrak)

1. Ginger (Sonth, Adrak) whole means the dried rhizome of *Zingiber officinale* Roscoe in pieces irregular in shape and size, pale brown in colour with peel not entirely removed and washed and dried in sun. It may be bleached with lime. It shall have characteristic taste and flavour free from musty odour or rancid or bitter taste. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The product shall be free from added colouring matter.

It shall conform to the following standards:—

- |                              |                                      |
|------------------------------|--------------------------------------|
| (i) Extraneous matter        | Not more than 1.0 percent by weight  |
| (ii) Moisture                | Not more than 12.0 percent by weight |
| (iii) Total ash on dry basis |                                      |
| (a) Unbleached               | Not more than 8.0 percent by weight  |

(b) Bleached	Not more than 12.0 percent by weight
(iv) Calcium as Calcium oxide on dry basis	
(a) Unbleached	Not more than 1.1 percent by weight
(b) Bleached	Not more than 2.5 percent by weight
(v) Volatile oil content on dry basis	Not less than 1.5 percent by v/w
(vi) Insect damaged matter	Not more than 1.0 percent by weight

2. Ginger (Sonth, Adrak) Powder means the powder obtained by grinding rhizome of *Zingiber officinale* Roscoe. It shall have characteristic taste and flavour free from musty odour or rancid or bitter taste. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The powder shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Moisture	Not more than 12.0 percent by weight
(ii) Total ash on dry basis	
(a) Unbleached	Not more than 8.0 percent by weight
(b) Bleached	Not more than 12.0 percent by weight
(iii) Calcium as Calcium oxide on dry basis	
(a) Unbleached	Not more than 1.1 percent by weight
(b) Bleached	Not more than 2.5 percent by weight
(iv) Volatile oil content on dry basis	Not less than 1.5 percent by v/w
(v) Water soluble ash on dry basis	Not less than 1.7 percent by weight
(vi) Acid insoluble ash on dry basis	Not more than 1.0 percent by weight
(vii) Alcohol (90% v/w) soluble extract on dry basis	Not less than 5.1 percent by weight
(viii) Cold water soluble extract on dry basis	Not less than 11.4 percent by weight

: Mace (Jaipatri)

1. Mace (Jaipatri) whole means the dried coat or aril of the seed of *Myristica fragrans* Houttuyn. It shall not contain the aril of any other variety of *Myristica nalaabarica* or *Fatua* (Bombay mace) and *Myristica argenea* (Wild mace). It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 0.5 percent by weight
(ii) Moisture	Not more than 10.0 percent by weight
(iii) Total ash on dry basis	Not more than 4.0 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis.	Not more than 0.5 percent by weight
(v) Volatile oil content on dry basis	Not less than 7.5 percent by v/w
(vi) Insect damaged matter	Not more than 1.0 percent by weight
(vii) Nutmeg in mace	Not more than 1.0 percent by weight

2. Mace (Jaipatri) powder means the powder obtained by grinding dried coat or aril of the seed of *Myristica fragrans* Houttuyn. It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter.

The powder shall conform to the following requirements:—

(i) Moisture	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 3.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 0.5 percent by weight
(iv) Volatile oil content on dry basis	Not less than 5.0 percent by v/w
(v) Crude fibre	Not more than 10.0 percent by weight
(vi) Non-volatile ether extract	Not less than 20.0 and not more than 30.0 percent by weight.

: Mustard (Rai, Sarson)

1. Mustard (Rai, Sarson) whole means the dried, clean mature seeds of one or more of the plants of *Brassica alba* (L). Boiss (Safed rai), *Brassica campestris* L. var. *dichotoma* (Kali Sarson), *Brassica Campestris*, L. Var. yellow Sarson, Syn, *Brassica campestris* L, var *glauca* (Pili Sarson), *Brassica, campestris* L. Var. *toria* (Toria), *Barassicajuncea*, (L). Coss et Czern (Rai, Lotni) and *Brassica nigra* (L); Koch (Benarasi rai). It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from the seeds of *Argemone Maxicana* L, any other harmful substances and added colouring matter.

It shall conform to the following standards:

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Damaged or Shrivelled seeds	Not more than 2.0 percent by weight
(iii) Moisture	Not more than 10.0 percent by weight
(iv) Total ash on dry basis	Not more than 6.5 percent by weight
(v) Ash insoluble in dilute HCl on dry basis	Not more than 1.0 percent by weight
(vi) Non volatile ether extract on dry basis	Not less than 28.0 percent by weight
(vii) Volatile oil content on dry basis	Not less than 0.3 percent by v/w
(viii) Insect damaged matter	Not more than 1.0 percent by weight
(ix) Allyl iso thiocyanate (m/m) on dry basis	
(a) B nigra	Not less than 1.0 percent by weight
(b) B Juncea	Not less than 0.7 percent by weight
(x) P-hydroxybenzyl iso-thiocyanate (m/m) on dry basis	Not less than 2.3 percent by weight in
<i>sinapist alba</i>	
(xi) <i>Argemone</i> seeds	Absent

2. Mustard (Rai, Sarson) powder means the powder obtained by grinding dried, clean mature seeds of one or more of the plants of *Brassica alba* (L). Boiss (Safed rai), *Brassica campestris* L. var. *dischotoma* (Kali Sarson), *Brassica Campestris*, L. Var. (yellow Sarson), Syn, *Brassica campestris* L, var *glauca* (Pili Sarson), *Brassica, campestris* L. Var. *toria* (Toria), *Barassicajuncea*, (L). Coss et Czern (Rai, Lotni) and *Brassica nigra* (L); Koch (Benarasi rai) without addition of any other matter. It shall have characteristic pungent aromatic flavour free from rancidity and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from *Argemone maxicana*. L and other harmful substances. It shall also be free from added colouring matter.

It shall conform to the following standards:

(i) Moisture	Not more than 7.0 percent by weight
(ii) Total ash on dry basis	Not more than 6.5 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis.	Not more than 1.0 percent by weight
(iv) Non volatile ether extract on dry basis	Not less than 28.0 percent by weight
(v) Volatile oil content on dry basis	Not less than 0.3 percent by v/w
(vi) Crude fibre	Not more than 8.0 percent by weight
(vii) Starch	Not more than 2.5 per cent by weight
(viii) Test for argemone oil	Negative

## : Nutmeg (Jaiphal)

1. Nutmeg (Jaiphal) whole means the dried seed (kernel) of *Myristica fragrans* Houttuyn. It shall be of greyish brown colour but it may be white if it has been subjected to liming. It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, and rodent contamination. The product shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Absent
(ii) Mace in Nutmeg	Not more than 3.0 percent by weight
(iii) Moisture	Not more than 10.0 percent by weight
(iv) Total ash on dry basis	Not more than 3.0 percent by weight
(v) Water insoluble ash on dry basis	Not more than 1.5 percent by weight
(vi) Ash insoluble in dilute HCl on dry basis.	Not more than 0.5 percent by weight
(vii) Volatile oil content on dry basis	Not less than 6.5 percent by v/w
(viii) Calcium content expressed as Calcium Oxide on dry basis	Not more than 0.35 percent by weight

2. Nutmeg (Jaiphal) powder means the powder obtained by grinding the dried seeds (kernel) or *Myristica fragrans* Houttuyn. It shall have characteristic aromatic flavour free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Moisture	Not more than 8.0 percent by weight
(ii) Total ash on dry basis	Not more than 3.0 percent by weight
(iii) Water insoluble ash on dry basis	Not more than 1.5 percent by weight
(iv) Ash insoluble in dilute HCl on dry basis	Not more than 0.5 percent by weight
(v) Volatile oil content on dry basis	Not less than 6.0 percent by v/w
(vi) Crude Fibre	Not more than 10.0 percent by weight
(vii) Non volatile ether extract on dry basis	Not less than 25.0 percent by weight

## : Pepper Black (Kalimirch)

1. Pepper Black (Kalimirch) whole means the dried berries of *Piper nigrum* L., brown to black in colour with a wrinkled pericarp. The berries are generally picked before complete ripening and may be brown, grey or black in colour. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colour, mineral oil and any other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Light Berries	Not more than 5.0 percent by weight
(iii) Pinheads or broken berries	Not more than 4.0 percent by weight
(iv) Bulk Density (gm/litre)	Not less than 490 gm/litre by weight
(v) Moisture	Not more than 13.0 percent by weight
(vi) Total ash on dry basis	Not more than 6.0 percent by weight
(vii) Non volatile ether extract on dry basis	Not less than 6.0 percent by weight
(viii) Volatile oil content on dry basis	Not less than 2.0 percent by v/w
(ix) Peperine Content on dry basis	Not less than 4.0 percent by weight
(x) Insect damaged matter (percent by weight)	Not more than 1.0 percent by weight

Explanation:—

(a) Light Berry means berry that has reached an apparently normal stage of development but the kernel does not exist.

(b) Pinhead means berry of very small size that has not developed.

(c) Broken berry means berry that has been separated in two or more parts.

2. Pepper Black (Kali Mirch) powder means the powder obtained by grinding dried berries of *Piper nigrum* L without addition to any other matter. It shall have characteristic aromatic flavour free from foreign odour, mustiness or rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter, mineral oil and any other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 12.5 percent by weight
(ii) Total ash on dry basis	Not more than 6.0 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 1.2 percent by weight
(iv) Crude Fibre on dry basis	Not more than 17.5 percent by weight
(v) Non volatile ether extract on dry basis	Not less than 6.0 percent by weight
(vi) Volatile oil content on dry basis	Not less than 1.75 percent by v/w
(vii) Peperine Content on dry basis	Not less than 4.0 percent by weight

3. Light Black Pepper means the dried berries of *Piper nigrum* L. dark brown to dark black in colour. It shall be well dried and free from mould, living and dead insects, insect fragments, rodent contamination.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Other Foreign edible seeds	Not more than 2.0 percent by weight

4. Pinheads shall be wholly derived from the spikes of *piper nigrum* L. They shall be reasonably dry and free from insects. The colour shall be from dark brown to black. It shall be free from added colouring matter.

It shall conform to the following standards:—

Extraneous matter	Not more than 1.0 percent by weight
-------------------	-------------------------------------

: Poppy (Khas Khas)

1. Poppy (Khas Khas) whole means the dried mature seeds of *Papaver somniferum* L. It may be white or greyish in colour with characteristic flavour free from off flavour, mustiness and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Moisture	Not more than 11.0 percent by weight
(iii) Non volatile ether extract on dry basis	Not less than 40.0 percent by weight

: Saffron (Kesar)

1. Saffron (Kesar) means the dried stigmas or tops of styles of *Crocus Sativus* Linnaeus. It shall be dark red in colour with a slightly bitter and pungent flavour, free from foreign odour and mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Floral waste	Not more than 10.0 percent by weight
(iii) Moisture and volatile matter at $103 \pm ^\circ\text{C}$	Not more than 12.0 percent by weight

(iv) Total ash on dry basis	Not more than 8.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
(vi) Solubility in cold water on dry weight Basis	Not less than 65.0 percent by weight
(vii) Bitterness expressed as direct reading of absorbance picrocrocine at about 257 nm on dry basis	Not less than 30.0 percent by weight of
(viii) Safranal expressed as direct reading of absorbance 330 nm on dry basis	Not less than 20.0 percent by weight and of not more than 50.0 percent by weight
(ix) Colouring strength expressed as direct reading of absorbance of 440 nm on dry basis	Not less than 80.0 percent by weight
(x) Total Nitrogen on dry basis	Not more than 2.0 percent by weight
(xi) Crude Fibre on dry basis	Not more than 6.0 percent by weight

Explanation:- Floral waste means yellow filaments that are unattached and separated pollens, stamens, parts of ovaries and other parts of flowers of *Crocus sativus* Linnaeus.

2. Saffron (Kesar) powder means the powder obtained by crushing dried stigmas of *Crocus Sativus* Linnaeus. It shall be dark red in colour with a slightly bitter and pungent flavour, free from foreign odour and mustiness.

It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter.

It shall conform to the following standards:—

(i) Moisture and volatile matter	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 8.0 percent by weight
(iii) Acid insoluble ash on dry basis	Not more than 1.5 percent by weight
(iv) Solubility in cold water on dry weight basis	Not more than 65.0 percent by weight
(v) Bitterness expressed as direct reading of absorbance picrocrocine at about 257 nm on Dry basis	Not less than 30.0 percent by weight of
(vi) Safranal expressed as direct reading of absorbance 330 nm on dry basis	Not less than 20.0 percent by weight and of not more than 50.0 percent by weight
(vii) Colouring strength expressed as direct reading of absorbance of 440 nm on dry basis	Not less than 80.0 percent by weight
(viii) Total Nitrogen on dry basis	Not more than 3.0 percent by weight
(ix) Crude Fibre on dry basis	Not more than 6.0 percent by weight

: Turmeric(Haldi)

1. Turmeric (Haldi) whole means the primary or secondary rhizomes commercially called bulbs or fingers of *Curcuma Longa* L. The rhizomes shall be cured by soaking them in boiling water and then drying them to avoid regeneration. The rhizome be in natural state or machine polished. The product shall have characteristic odour and flavour and shall be free from mustiness or other foreign flavours. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from Lead Chromate added starch and any other extraneous colouring matter.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 1.0 percent by weight
(ii) Defective Rhizomes	Not more than 5.0 percent by weight
(iii) Moisture	Not more than 12.0 percent by weight
(iv) Insect damaged matter	Not more than 1.0 percent by weight
(v) Test for lead chromate	Negative

Explanation :- Defective rhizomes consist of shrivelled fingers and or bulbs internally damaged, hollow or porous rhizomes scorched by boiling and other types of damaged rhizomes.

2. Turmeric (Haldi) powder means the powder obtained by grinding dried rhizomes or bulbous roots of *Curcuma Longa* L. The powder shall have characteristic odour and flavour and shall be free from mustiness or other foreign odour. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from any added colouring matter including Lead Chromate and morphologically extraneous matter including foreign starch.

It shall conform to the following standards:—

(i) Moisture	Not more than 10.0 percent by weight
(ii) Total ash on dry basis	Not more than 9.0 percent by weight
(iii) Ash insoluble in dil. HCl on dry basis	Not more than 1.5 percent by weight
(iv) Colouring power expressed as curcuminoid content on dry basis	Not less than 2.0 percent by weight
(v) Total Starch	Not more than 60.0 percent by weight
(vi) Test for lead chromate	Negative

#### : CURRYPOWDER

1. CURRY POWDER means the powder obtained from grinding clean, dried and sound spices belonging to the group of aromatic herbs and seeds such as black pepper, cinnamon, cloves, coriander, cardamom, chillies, cumin seeds, fenugreek, garlic, ginger, mustard, poppy seeds, turmeric, mace, nutmeg, curry leaves, white pepper, saffron and aniseeds. The material may contain added starch and edible common salt. The proportion of spices used in the preparation of curry powder shall be not less than 85.0 per cent by weight. The powder shall be free from dirt, mould growth and insect infestation. It shall be free from any added colouring matter and preservatives other than edible common salt.

The curry powder shall also conform to the following standards:—

Moisture	Not more than 14.0 percent by weight
Volatile oil	Not less than 0.25 percent (v/w) on dry basis
Non-volatile ether extract	Not less than 7.5 per cent by weight on dry basis.
Edible common salt	Not more than 5.0 per cent by weight on dry basis
Ash insoluble in dilute HCl	Not more than 2.0 per cent by weight on dry basis.
Crude Fibre	Not more than 15.0 percent by weight on dry basis
Lead	Not more than 10.0 p.p.m on dry basis

#### : MIXED MASALA

1. MIXED MASALA (WHOLE) means a mixture of clean, dried and sound aromatic herbs and spices. It may also contain dried vegetables and/or fruits, oilseeds, garlic, ginger, poppy seeds and curry leaves. It shall be free from added colouring matter. It shall be free from mould growth and insect infestation. The proportion of extraneous matter shall not exceed five per cent by weight, out of which the proportion of organic matter including foreign edible seeds and inorganic matter shall not exceed three per cent and two per cent respectively.

#### : Aniseed (Saunf)

1. Aniseed (Saunf) whole means the dried and mature fruit of *Pimpinella anisum* L. It shall have characteristic aromatic flavour and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Shrivelled, immature, damaged / insect damaged / broken fruit	Not more than 5.0 percent by weight
(iii) Moisture	Not more than 12.0 percent by weight



(iv) Total ash on dry basis	Not more than 9.0 percent by weight
(v) Ash insoluble in dilute HCl on dry basis	Not more than 1.5 percent by weight
(vi) Volatile oil content on dry basis	Not less than 1.0 percent by v/w
(vii) Insect damaged matter	Not more than 1.0 percent by weight
(viii) Foreign edible seeds	Not more than 2.0 percent by weight

: Ajowan (Bishops seed)

1. Ajowan (Bishops seed) means the dried ripe fruits (seeds) of *Trachyspermum ammi*. L Sprague. It shall have characteristic aromatic flavour and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 11.0 percent by weight
(ii) Extraneous matter	Not more than 2.0 percent by weight
(iii) Shrivelled / Damaged / insect damaged / broken fruit	Not more than 2.0 percent by weight (iV)
Volatile oil content on dry basis	Not less than 1.5 percent v/w

: Dried Mango Slices

1. Dried Mango Slices--Means the dried wholesome, edible part of raw mango fruit with or without the outer skin. It shall be free from fungus, moulds and insect infestation, rodent contamination, added colouring, flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt which may be added to the extent of 5 per cent by weight on dry basis. It shall have characteristic taste and flavour. The proportion of extraneous substance shall not exceed 4 per cent by weight out of which inorganic matter shall not exceed 2 per cent by weight.

It shall also conform to the following standards, namely :—

Moisture	Not more than 12 per cent by weight.
Damaged slices	Not more than 5 per cent by weight.
Seed Coatings	Not more than 6 per cent by weight.

*Explanation:*

- (i) Seed coatings shall be exterior covering of the seed.
- (ii) Damaged slices mean the slices that are eaten by weevils or other insects and includes slices internally damaged by fungus, moisture or heating.

Dried Mango Powder (Amchur)

1. Dried Mango Powder (Amchur)--Means the powder obtained by grinding clean and dried mango slices having characteristic taste and flavour. It shall be free from musty odour and objectionable flavour, rodent contamination, mould, fungus and insect infestation, extraneous matter and added colouring, flavouring matter. It shall also be free from deleterious substances injurious to health. It shall not contain any preservative except edible common salt which may be added to the extent of 5 per cent by weight on dry basis.

It shall also conform to the following standards, namely:—

(a) Moisture	Not more than 12 per cent by Weight
(b) Total ash (salt free basis)	Not more than 6 per cent by weight
(c) Ash insoluble in dilute HCl	Not more than 1.5 per cent by weight
(d) Crude fibre	Not more than 6 per cent by weight
(e) Acidity as anhydrous tartaric acid	Not less than 12 per cent and not more than 26 percent by weight

## : Pepper White

1. Pepper White whole means the dried berries of *Piper nigrum* L. from which the outer pericarp is removed with or without preliminary soaking in water and subsequent drying, if necessary. The berries shall be light brown to white in colour with a smooth surface. The berries on grinding shall have characteristic aromatic flavour and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 0.8 percent by weight
(ii) Broken Berries	Not more than 3.0 percent by weight
(iii) Black berries	Not more than 5.0 percent by weight
(iv) Bulk Density (gm/litre)	Not less than 600 percent by weight
(v) Moisture	Not more than 13.0 percent by weight
(vi) Total ash on dry basis	Not more than 3.5 percent by weight
(vii) Non Volatile ether extract on dry basis	Not less than 6.5 percent by weight
(viii) Volatile oil content on dry basis	Not less than 1.0 percent by v/w
(ix) Peperine Content on dry basis	Not less than 4.0 percent by weight
(x) Insect damaged matter	Not more than 1.0 percent by weight

Explanation:- (a) Broken berries means berry that has been separated in two or more parts.

(b) Black Berry means berry of dark colour generally consisting of black pepper berry whose pericarp has not been fully removed.

2. Pepper White powder means the powder obtained by grinding dried berries of *Piper nigrum* L. from which the outer pericarp is removed and to which no foreign matter is added. It shall have characteristic aromatic flavour and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The powder shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Moisture	Not more than 13.0 percent by weight
(ii) Total ash on dry basis	Not more than 3.5 percent by weight
(iii) Ash insoluble in dilute HCl on dry basis	Not more than 0.3 percent by weight
(iv) Crude fibre on dry basis	Not more than 6.5 percent by weight
(v) Non Volatile ether extract on dry basis	Not less than 6.5 percent by weight
(vi) Volatile oil content on dry basis	Not less than 0.7 percent by v/w
(vii) Peperine Content on dry basis	Not less than 4.0 percent by weight

## : Garlic (Lahsun)

1. Dried (Dehydrated) Garlic (Lahsun) means the product obtained by drying by any suitable method which ensures characteristics of fresh garlic on rehydration the cloves of *Allium sativum* L. without bleaching or precooking. It shall be white to pale cream in colour, free from scorched, toasted and baked particles. It may be whole, sliced, quarters, pieces, flakes, kibbled, granules or powdered. The product on rehydration shall have characteristic pungent of odour of garlic, free from off odour, mustiness fermentation and rancidity. It shall be free from mould, living and dead insects, insect fragments, rodent contamination and fungal infection. The products shall be free from added colouring matter and any other harmful substances. It shall be free from stalks, peels, stems, and extraneous matter. When in powdered form, it shall be free flowing and free from agglomerates.

The products may contain food additives permitted in these regulations including Appendix - A and it shall conform to the following standards, namely:—

(i) Extraneous matter	Not more than 0.5 percent
(ii) Moisture	
a. In case of powdered Garlic	Not more than 5.0 percent by weight
b. other than powdered Garlic	Not more than 8.0 percent by weight
(iii) Total ash on dry basis	Not more than 5.0 percent by dry weight
(iv) Ash insoluble in dil HCl	Not more than 0.5 percent by weight
(v) Cold water soluble extract on dry basis	Not less than 70.0 and not more than 90.0 percent by weight
(vi) Volatile organic sulphur compound on dry basis	Not less than 0.3 percent by weight
(vii) Peroxidase test	Negative

: Celery

1. Celery whole means the dried ripe fruits (seeds) of *Apium graveoleans* L. It shall be of uniform colour with characteristic aromatic flavour and shall be free from mustiness. It shall be free from mould, living and dead insects, insect fragments, rodent contamination. The product shall be free from added colouring matter and any other harmful substances.

It shall conform to the following standards:—

(i) Extraneous matter	Not more than 2.0 percent by weight
(ii) Moisture	Not more than 10.0 percent by weight

: Dehydrated Onion (Sukha Pyaj)

1. Dehydrated Onion (Sukha Pyaj) - means the product obtained by removal of most moisture by any acceptable method which ensures characteristics of fresh onions on rehydration, from sound bulbs of *Allium cepa* L. free from mould, disease, outer skin, leaves and roots. The product may be whole or in the form of slices, rings, flakes, pieces, small grits or powder. The product may be white/cream/pink or red in colour, free from stalks, peels, stems and extraneous matters and scorched particles. The finished product shall be free from discolouration or enzymatic reaction. The product on rehydration shall be of characteristic flavour, free from foreign and off flavour, mustiness, fermentation and rancid flavour.

It shall be free from mould, living and dead insects, insect fragments and rodent contamination. The product shall be free from added colouring matter and any other harmful substances. When in powdered form, it shall be free flowing and free from agglomerates.

The products may contain food additives permitted in these regulations including Appendix - A and it shall conform to the following standards, namely:—

Extraneous matter	Not more than 0.5 percent by weight
Moisture:	
(a) In case of powdered onion	Not more than 5.0 percent by weight
(b) Other than powdered onion	Not more than 8.0 percent by weight
Total Ash on dry basis	Not more than 5.0 percent by weight
Ash insoluble in dil HCl	Not more than 0.5 percent by weight
Peroxidase	Negative

Asafoetida

ASAFOETIDA (Hing or Hingra) means the oleogumresin obtained from the rhizome and roots of *Ferula alliaces*, *Ferula rubricaulis* and other species of *Ferula*. It shall not contain any colophony resin, galbanum resin, ammoniacum resin or any other foreign resin. Hing shall conform to the following standards, namely:

- (1) Total ash content shall not exceed 15 per cent by weight.
- (2) Ash insoluble in dilute hydrochloric acid shall not exceed 2.5 per cent by weight.
- (3) The alcoholic extract (with 90 per cent alcohol) shall not be less than 12 per cent as estimated by the U.S.P. 1936 method.

(4) Starch shall not exceed 1 per cent by weight. Hingra

shall conform to the following standards namely:—

- (1) The total ash content shall not exceed 20 per cent by weight.
- (2) Ash insoluble in dilute hydrochloric acid shall not exceed 8 per cent by weight.
- (3) The alcoholic extract (with 90 per cent alcohol) shall not be less than 50 per cent as estimated by the U.S.P. 1936 method.

(4) Starch shall not exceed 1 per cent by weight.

Compounded asafoetida or Bandhani Hing is composed of one or more varieties of asafoetida (Irani or Pathani Hing or both) and gum arabic, edible starches or edible cereal flour.

It shall not contain:—

- (a) colophony resin,
- (b) galbanum resin,
- (c) ammoniacum resin,
- (d) any other foreign resin,
- (e) coal tar dyes,
- (f) mineral pigment,
- (g) more than 10 per cent total ash content,
- (h) more than 1.5 per cent ash insoluble in dilute hydrochloric acid,
- (i) less than 5 per cent alcoholic extract, (with 90 per cent of alcohol) as estimated by the U.S.P. 1936 method.

#### EDIBLE COMMON SALT:

1. EDIBLE COMMON SALT means a crystalline solid, white, pale, pink or light grey in colour free from contamination with clay, grit and other extraneous adulterant and impurities. It shall not contain moisture in excess of six per cent of the weight of the undried sample. The sodium chloride content (as NaCl) and matter soluble in water other than sodium chloride on dry weight basis shall be as specified in columns (2) and (3) of the Table below against the period of validity mentioned in the corresponding entry in column (1) of the said Table. The matter insoluble in water shall not exceed 1.0 per cent by weight on dry weight basis.

Period of Validity	Minimum percentage of sodium chloride content as NaCl (on dry basis)	Maximum Percentage of matter soluble in water other than sodium chloride (on dry basis)
Upto 31-3-1982	94.0	5.0
From 1-4-1982 to 31-3-1983	94.5	4.5
From 1-4-1983 to 31-3-1984	95.0	4.0
From 1-4-1984 to 31-3-1985	95.5	3.5
From 1-4-1985 onwards	96.0	3.0

The product may contain food additives permitted in these regulations including Appendix A. The total matter insoluble in water where an anticaking agent has been added shall not exceed 2.2 percent and sodium chloride content on dry basis shall not be less than 97.0 percent by weight.

2. IODISED SALT means a crystalline salt, white or pale, pink or light grey in colour, free from contamination with clay, grit and other extraneous adulterants and impurities. It shall conform to the following standards, namely:—

Moisture	Not more than 6.0 per cent by weight of the undried sample.
Sodium Chloride (NaCl)	Not less than 96.0 per cent by weight on dry basis.
Matter insoluble in water	Not more than 1.0 per cent by weight on dry basis
Matter soluble in water Other than Sodium Chloride	Not more than 3.0 per cent by weight on dry basis
Iodine content at—	
(a) Manufacture level	Not less than 30 parts per million on dry weight basis
(b) Distribution channel including retail level	Not less than 15 part per million on dry weight basis.

The product may contain food additives permitted in these regulations including Appendix A. The total matter insoluble in water where an anticaking agent has been added shall not exceed 2.2 percent and sodium chloride content on dry basis shall not be less than 97.0 percent by weight.

3. IRON FORTIFIED COMMON SALT means a crystalline solid, white or pale, pink or light grey in colour, free from visible contamination with clay and other extraneous adulterants and impurities. It shall conform to the following standards namely:—

Moisture	Not more than 5.0 per cent by weight
Water insoluble matter	Not more than 1.0% on dry weight basis.
Chloride content as NaCl	Not less than 96.5% by weight on dry weight basis
Matter insoluble in dilute HCl	Not more than 3.0 % by weight on dry weight basis, (to be determined by the method specified in IS 253-1970).
Matter soluble in water other than NaCl	Not more than 2.5% on dry weight weight basis
Iron content (as Fe)	850-1100 parts per million.
Phosphorous as Inorganic (PO <sub>4</sub> )	1500-2000 parts per million
Sulphate as (SO <sub>4</sub> )	Not more than 1.1% by weight.
Magnesium as (Mg) water soluble	Not more than 0.10% by weight
pH value in 5% aqueous Solution	2 to 3.5

The product may contain food additives permitted in these regulations including Appendix A. The total matter insoluble in water where an anticaking agent has been added shall not exceed 2.2 percent on dry weight basis.

4. POTASSIUM IODATE means a crystalline powder, white in colour free from impurities. It shall conform to the following standards namely:—

1. Potassium Iodate (as KIO <sub>3</sub> ) percent by weight	Not less than	99.0
2. Solubility		Soluble in '30 Parts of water
3. Iodine (as I) per cent by wt. not more than		0.002
4. Sulphate (as SO <sub>4</sub> ) per cent by wt. not more than		0.02
5. Bromate, bromide, chlorate & chloride percent by wt. not more than		0.01
6. Matter insoluble in water percent by wt. not more than		0.10
7. Loss on drying percent by wt. not more than		0.1
8. PH (5 percent solution)		Neutral
9. Heavy metal (as Pb) ppm not more than		10
10. Arsenic (as As) ppm not more than		3
11. Iron (as Fe) ppm not more than		10

5. Iron Fortified Iodized Salt (double fortified salt) means a crushed Crystalline Solid; white or pale or pink or light grey in colour, free from contamination with clay and other extraneous adulterants and impurities. Salt used for manufacture of double fortified salt shall have minimum 99.0 percent sodium chloride content on dry weight basis and moisture not more than 1.5 percent and it shall conform to the following standards namely:—

Moisture	Not more than 1.5 per cent by weight
Water insoluble matter	Not more than 1.0% on dry weight basis.
Chloride content (as NaCl)	Not less than 97.0% on dry weight basis
Matter insoluble in dilute HCl	Not more than 0.30 % on dry weight basis
Matter soluble in water other than NaCl content (as Fe)	Not more than 2.5% on dry weight basis Iron 850-1100 parts per million.
Iodine content:	
a. Manufacturers level	Not less than 30 ppm
b. Distribution Channel including Retail level	Not less than 15 ppm
Phosphorous as P <sub>2</sub> O <sub>5</sub>	2800-3100 parts per million
Sulphate as (SO <sub>4</sub> )	Not more than 1.1% by weight.
Magnesium as (Mg) water soluble	Not more than 0.10% by weight
pH value in 5% aqueous Solution	3.5 to 5.5

Provided that double fortified salt may contain Sodium Hexametaphosphate (food grade) as stabilizer at concentration of not more than 1.0 percent on dry weight basis.

: BEVERAGES, (Other than Dairy and Fruits & Vegetables based)

: TEA

1. TEA means tea other than Kangra tea obtained by acceptable processes, exclusively from the leaves, buds and tender stems of plant of the *Camellia sinensis* (L) O. Kuntze. It may be in the form of black or oolong tea. The product shall have characteristic flavour free from any off odour, taint and mustiness. It shall be free from living insects, moulds, dead insects, insect fragments and rodent contamination visible to the naked eye (corrected if necessary for abnormal vision). The product shall be free from extraneous matter, added colouring matter and harmful substances:

Provided that the tea may contain "natural flavours" and "natural flavouring substances" which are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processes from materials of plants origin either in their natural state or after processing for human consumption in packaged tea only. Tea containing added flavour shall bear proper label declaration as provided in regulation 2.4.5 (23) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. Tea used in the manufacture of flavoured tea shall conform to the standards of tea. The flavoured tea manufacturers shall register themselves with the Tea Board before marketing flavoured tea. Pectinase enzyme can be added up to a level of 0.2% during manufacture as processing aid. The product shall conform to the following requirement in which all the figures given are expressed on the basis of the material oven-dried at 103±2° C.

(a) Total Ash (m/m)	Not less than 4.0 percent and not more than 8.0 percent
(b) Water Soluble Ash	Not less than 45.0 percent of total ash
(c) Alkalinity of water soluble ash expressed KOH (m/m)	Not less than 1.0 percent and not more than 3.0 as percent
(d) Acid-insoluble ash (m/m)	Not more than 1.0 percent
(e) Water extract (m/m)	Not less than 32.0 percent
(f) Crude Fibre (m/m)	Not more than 16.5 percent

2. KANGRA TEA means tea derived exclusively from the leaves, buds and tender stems of plants of the *Camellia sinensis* or *Camellia* tea grown in Kangra and Mandi valleys of Himachal Pradesh. It shall conform to the following specifications namely;

- |   |   |
|---|---|
| (a) Total ash determined on tea dried to constant weight at 100°C   | 4.5 to 9.0 percent by weight                            |
| (b) Total ash soluble in boiling distilled water  | Not less than 34 percent of total ash                   |
| (c) Ash insoluble in dilute hydrochloric acid   | Not more than 1.2 percent by weight on dry basis.       |
| (d) Extract obtained by boiling dried tea (dried to constant weight at 100°C) with 100 parts of distilled water for one hour under reflux | Not less than 23 percent.                               |
| (e) Alkalinity of soluble ash expressed as K <sub>2</sub> O on dry basis  | Not less than 1.0 percent and not more than 2.2 percent |
| (f) Crude fibre determined on tea dried to constant weight at 100°C   | Not more than 18.5 percent                              |

It shall not contain any added colouring matter It may also contain 0.2 per cent Pectinase enzyme

Provided that tea may contain Natural Flavours and Natural Flavouring Substances which are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical process from materials of plant origin either in their raw state or after processing for human consumption:

Provided further that such tea containing added flavour shall bear proper label declaration as provided in regulation 2.4.5 (23) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided also that tea used in the manufacture of flavoured tea shall conform to the standards of tea.

Provided that if tea is sold or offered for sale without any indication as to whether it is Kangra tea or not, the standards or quality of tea prescribed in item regulation 2.10.1 (1) shall apply.

Provided also that Flavoured tea manufacturers shall register themselves with the Tea Board before marketing Flavoured tea;

3. Green Tea means the product derived solely and exclusively, and produced by acceptable processes, notably enzyme, inactivation, rolling or comminution and drying, from the leaves, buds and tender stems of varieties of the species *Camellia sinensis* (L) O. Kuntze, known to be suitable for making tea for consumption as a beverage. The product shall have characteristic flavour free from any off odour, taint and mustiness. It shall be free from living or dead insects, moulds, insect fragments and rodent contamination visible to the naked eye (corrected if necessary for abnormal vision). The product shall be free from extraneous matter, added colouring matter and harmful substances;

Provided that the tea may contain "natural flavours" and "natural flavouring substances" which are flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processes from material of plants origin either in their natural state or after processing for human consumption in packaged tea only. Tea containing added flavour shall bear proper label declaration as provided in regulation 2.4.5 (23) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. Tea used in the manufacture of flavoured tea shall conform to the standards of tea. The flavoured tea manufacturers shall register themselves with the Tea Board before marketing flavoured tea. The product shall conform to the following requirements in which all the figures given are expressed on the basis of the material oven-dried at 103±2° C.

<i>Parameter</i>	<i>Limits</i>
(a) Total Ash (m/m)	Not less than 4.0 percent and not more than 8.0 percent
(b) Water-soluble ash	Not less than 45.0 percent of total ash.
(c) Alkalinity of water - soluble Ash expressed as KOH (m/m)	Not less than 1.0 percent of total ash and not more than 3.0 percent

(d) Acid-insoluble ash (m/m)	Not more than 1.0 percent
(e) Water-extract (m/m)	Not less than 32.0 percent
(f) Crude fibre (m/m)	Not more than 16.5 percent
(g) Total catechins (m/m)	Not less than 9.0 percent and not more than 19.0 percent

: COFFEE

1. Coffee (green raw or unroasted) means the dried seeds of *Coffea arabica*, *Coffea liberica*, *Coffea excelsa* or *Coffea canephora* (robusta) with their husks (mesocarp and endocarp) removed.

1.1 Roasted coffee means properly cleaned green coffee which has been roasted to a brown colour and has developed its characteristic aroma.

Ground coffee means the powdered products obtained from 'roasted coffee' only and shall be free from husk.

Coffee (green raw or unroasted), 'roasted and ground coffee' shall be free from any artificial colouring, flavouring, facing extraneous matter or glazing substance and shall be in sound, dry and fresh condition, free from rancid or obnoxious flavour.

Roasted coffee and ground coffee shall conform to the following analytical standards:-

Moisture (on dry basis) m/m	Not more than 5.0 percent
Total Ash (on dry basis) m/m	3.0 to 6.0 percent
Acid insoluble ash (on dry basis) m/m	Not more than 0.1 percent
Water soluble ash (on dry basis) m/m	Not less than 65 percent of total ash
of soluble ash in milliliters of 0.1 N hydrochloric acid per gram of material (on dry basis) m/m	Alkalinity Not less than 3.5 ml & Not more than 5.0 ml
Aqueous extracts on dry basis m/m	Not less than 26.0 and not more than 35.0 percent
Caffeine (anhydrous)(on dry basis) m/m	Not less than 1.0 percent

2. Soluble Coffee Powder means coffee powder, obtained from freshly roasted and ground pure coffee beans. The product shall be in the form of a free flowing powder or shall be in the agglomerated form (granules) having colour, taste and flavour characteristic of coffee. It shall be free from impurities and shall not contain chicory or any other added substances.

It shall conform to the following standards:

(i) Moisture (on dry basis) m/m	Not more than 4.0 percent
(ii) Total ash (on dry basis) m/m	Not more than 12.0 percent
(iii) Caffeined content (on dry basis) m/m	Not less than 2.8 percent
(iv) Solubility in boiling water	Dissolves readily in 30 seconds with moderate stirring
(v) Solubility in cold water at 16±2°C	Soluble with moderate stirring in 3 minutes

: CHICORY

1. Chicory means the roasted chicory powder obtained by roasting and grinding of the cleaned and dried roots of *chicorium intybus* Lin with or without the addition of edible fats and oils or sugar, like glucose or sucrose in proportion not exceeding 2.0 percent by weight in aggregate. It shall be free from dirt, extraneous matter, artificial colouring and flavouring agents.

It shall conform to the following standards, namely:—



(i) Total ash (on dry basis) m/m	Not less than 3.5 percent and Not more than 8.0 percent
(ii) Acid insoluble ash (on dry basis) m/m diluted Hcl	Not more than 2.5 percent in
(iii) Aqueous extracts (on dry basis) m/m	Not less than 55.0 percent

: COFFEE - CHICORY MIXTURE

1. Coffee - Chicory Mixture means the product prepared by mixing roasted and ground coffee and roasted and ground chicory and shall be in a sound, dry and dust free condition with no rancid or obnoxious flavour. It shall be in the form of a free flowing powder having the colour, taste and flavour characteristic of coffee - chicory powder. It shall be free from any impurities and shall not contain any other added substance. The coffee content in the mixture shall not be less than 51 per cent by mass. The percentage of coffee and chicory used shall be marked on the label as provided in Regulation 2.4.5 (1) (i) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

It shall conform to the following standards, namely:—

(i) Moisture	Not more than 5.0 per cent.
(ii) Total ash on dry basis	Not more than 7.50 percent.
(iii) Acid insoluble ash on dry basis	Not more than 0.6 per cent.
(iv) Caffeine content on dry basis	Not less than 0.6 per cent.
(v) Aqueous extracts	Not more than 50 per cent.

2. Instant Coffee - Chicory Mixture means the product manufactured from roasted and ground coffee and roasted and ground chicory. It shall be in sound dry and dust free condition with no rancid or obnoxious flavour. It shall be in the form of a free flowing powder or shall be in the agglomerated (granules) form having the colour, taste and flavour characteristics of coffee chicory powder. It shall be free from any impurities and shall not contain any other added substance. The coffee content in the mixture shall not be less than 51 per cent by mass on dry basis. The percentage of coffee and chicory used shall be marked on the label as provided in Regulation 2.4.5 (1) (ii) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

It shall conform to the following standards, namely:—

(i) Moisture	Not more than 4.0 per cent.
(ii) Total ash on dry basis	Not more than 10 per cent.
(iii) Acid insoluble ash on dry basis	Not more than 0.6 per cent.
(iv) Caffeine (anhydrous)	Not less than 1.4 per cent on dry basis.
(v) Solubility in boiling water	Dissolves readily in 30 seconds with moderate stirring
(vi) Solubility in cold water at $16 \pm 20^\circ\text{C}$	Soluble with moderate stirring in 3 minutes

Beverages -ALCOHOLIC

1. TODDY: Toddy means the sap from coconut, date, toddy palm tree or any other kind of palm tree which has undergone alcoholic fermentation. It shall be white cloudy in appearance which sediments on storage and shall possess characteristic flavour derived from the sap and fermentation without addition of extraneous alcohol. It shall be free from added colouring matter, dirt, other foreign matter or any other ingredient injurious to health. It shall also be free from chloral hydrate, paraldehyde, sedative, tranquilizer and artificial sweetener.

It shall also conform to the following standards, namely:

Alcoholic content	Not less than 5 percent (v/v)
Total acid as Tartaric acid (expressed in terms of 100 litres of absolute alcohol)	Not less than 400 grams

Volatile acid as Acetic acid expressed in terms of Not more than 100 grams 100  
litres of absolute alcohol)

#### BEVERAGES NON-ALCOHOLIC - CARBONATED

1. CARBONATED WATER means water conforming to the standards prescribed for Packaged Drinking Water under Food Safety and Standard Act, 2006 impregnated with carbon dioxide under pressure and may contain any of the following singly or in combination:

1. Sugar, liquid glucose, dextrose monohydrate, invert sugar, fructose, honey, fruits and vegetables extractives and permitted flavouring, colouring matter, preservatives, emulsifying and stabilising agents, citric acid, fumaric acid and sorbitol, tartaric acid, phosphoric acid, lactic acid, ascorbic acid, malic acid, edible gums such as guar, karaya, arabic carobean, furcellaran, tragacanth, gum ghatti, edible gelatin, albumin, licorice and its derivatives, salts of sodium, calcium and magnesium, vitamins, Caffeine not exceeding 145 parts per million, Estergum (Glycerol ester of wood resin) not exceeding 100 parts per million, Gellan Gum at GMP level and quinine salts not exceeding 100 parts per million (expressed as quinine sulphate). It may also contain Saccharin Sodium not exceeding 100 ppm or Acesulfame-K not exceeding 300 ppm or Aspartame (methyl ester) not exceeding 700 ppm. or sucralose not exceeding 300 ppm or Neotame not exceeding 33 ppm.

Provided that the quantity of added sugar shall be declared on the container / bottle and if no sugar is added that also shall be declared on the container/bottle as laid down in labelling Regulations 2.4.5 (24,25,26, 28 and 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. In case of returnable bottles, which are recycled or refilling the declaration of quantity of added sugar and no sugar added may be given on the crown.

Provided also that the declaration of 'no sugar added' shall not be applicable for 'carbonated water (plain soda)'.

Provided also that the products which contain aspartame, acesulfame or any other artificial sweetener for which special labeling provisions have been provided under regulations 2.4.5 (24,25,26, 28 and 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011, shall not be packed, stored, distributed or sold in returnable containers.

It shall conform to the following requirements, namely—

(1) Total plate count per ml not more than that.....50..cfu.. (2)

Coliform count in 100 ml .....0.....cfu...

(3) Yeast and mould count per ml not more than... 2.....cfu

Provided further estergum used in carbonated water shall have the following standards, namely:—

Glycerol esters of wood rosins commonly known as ester-gum is hard yellow to pale amber coloured solid. It is a complex mixture of tri and diglycerol esters of rosin acids from wood rosin. It is produced by the esterification of pale wood rosin with food grade glycerol. It is composed of approximately 90 per cent rosin acids and 10 per cent neutrals (non-acidic compounds). The resin acid fraction is a complex mixture of isomeric diterpenoid monocarboxylic acids having the typical molecular formula of  $C_{20}H_{30}O_2$  chiefly abietic acid. The substance is purified by steam stripping or by counter-current steam distillation.

#### *Identification:*

Solubility-Insoluble in water, soluble in acetone and in Benzene.

Infra Red Spectrum-Obtain the infra-red spectram of a thin film of the sample deposited on a potassium bromide plate-scan between 600 and 4000 wave numbers. Compare with typical spectrum obtained from pure ester-gum.

Test for absence of till oil rosin (Sulphur test)-Pass the test as given below:

When sulphur-containing organic compounds are heated in the presence of sodium formate, the sulphur is converted to hydrogen sulfide which can readily be detected by the use of lead acetate paper. A positive test indicates the use of till oil rosin instead of wood rosin.

Apparatus-Test Tube: Use a standard, 10x75 mm, heat-resistant, glass test tube, Burner - Bunsen: A small size burner of the microflame type is preferred.

*Reagents*

Sodium Formate Solution: Dissolve 20g of reagent grade sodium formate, NaOOCH, in 100 ml of distilled water. Lead

Acetate Test Paper: Commercially available from most chemical supply houses.

*Procedure*-Weigh 40-50 mg of sample into a test tube and 1-2 drops of sodium formate solution. Place a strip of lead acetate test paper over the mouth of the test tube. Heat the tube in the burner flame until fumes are formed that contact the test paper. Continue heating for 2-5 minutes. There must be no formation of a black spot of lead sulphide indicating the presence of sulphur containing compounds.

Detection Limit: 50 mg/kg sulphur).

Drop softening point-Between 880 C and 960 C.

Arsenic-Not more than 3ppm.

Lead-Not more than 10ppm.

Heavy metals (as lead)-Not more than 40 ppm.

Acid value- Between 3 and 9.

Hydroxyl number-Between 15 and 45.

*Mineral water*

1. Mineral water means includes all kinds of Mineral Water or Natural mineral water by whatever name it is called and sold.

2. Description and Types of Mineral water.

(i) Natural mineral water is water clearly distinguished from ordinary drinking water because -

(a) it is characterized by its content of certain mineral salts and their relative proportions and the presence of trace elements or of other constituents;

(b) it is obtained directly from natural or drilled sources from underground water bearing strata and not from Public water supply for which all possible precautions should be taken within the protected perimeters to avoid any pollution of, or external influence on, the chemical and physical qualities of natural mineral water.

(c) of the constancy of its composition and the stability of its discharge and its temperature, due account being taken of the cycles of minor natural fluctuations;

(d) it is collected under conditions which guarantee the original microbiological purity and chemical composition of essential components;

(e) it is packaged close to the point of emergence of the source with particular hygienic precautions;

(f) it is not subjected to any treatment other than those permitted by this standard;

(ii) Naturally Carbonated Natural Mineral Water - A naturally carbonated natural mineral water is a natural mineral water which, after possible treatment as given hereunder and re-incorporation of gas from the same source and after packaging taking into consideration usual technical tolerance, has the same content of carbon dioxide spontaneously and visibly given off under normal conditions of temperature and pressure.

(iii) Non-Carbonated Natural Mineral Water- A non-carbonated natural mineral water is a natural mineral water which, by nature and after possible treatment as given hereunder and after packaging taking into consideration usual technical tolerance, does not contain free carbon dioxide in excess of the amount necessary to keep the hydrogen carbonate salts present in the water dissolved.

(iv) Decarbonated Natural Mineral Water - A decarbonated natural mineral is a natural mineral water which, after possible treatment as given hereunder and after packaging, has less carbon dioxide content than that at emergence and does not visibly and spontaneously give off carbon dioxide under normal conditions of temperature and pressure.

(v) Natural Mineral Water Fortified with Carbon Dioxide from the Source - A natural mineral water fortified with carbon dioxide from the source is a natural mineral water which, after possible treatment as given hereunder and after packaging, has more carbon dioxide content than that at emergence.

(vi) Carbonated Natural Mineral Water - A carbonated natural mineral water is a natural mineral water which, after possible treatment as given hereunder and after packaging, has been made effervescent by the addition of carbon dioxide from another origin.

2. Treatment and handling:- Treatment permitted includes separation from unstable constituents, such as compounds containing iron, manganese, sulphur or arsenic, by decantation and/or filtration, if necessary, accelerated by previous aeration.

The treatments provided may only be carried out on condition that the mineral content of the water is not modified in its essential constituents, which give the water its properties.

The transport of natural mineral waters in bulk containers for packaging or for any other process before packaging is prohibited. Natural Mineral water shall be packaged in clean and sterile containers.

The source on the point of emergence shall be protected against risks of pollution.

The installation intended for the production of natural mineral waters shall be such as to exclude any possibility of contamination. For this purpose, and in particular —

(a) the installations for collection, the pipes and the reservoirs shall be made from materials suited to the water and in such a way as to prevent the introduction of foreign substances into the water,

(b) the equipment and its use for production, especially installations for washing and packaging, shall meet hygienic requirements;

(c) if, during production it is found that the water is polluted, the producer shall stop all operations until the cause of pollution is eliminated;

(d) The related packaging and labelling requirements are provided in the Regulation 2.1.2 , 2.2.1 and 2.4.5 of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

3. All Mineral Water shall conform to the following standards, namely:—

<i>Sl.No.</i>	<i>Characteristic</i>	<i>Requirements</i>
(1)	(2)	(3)
(1)	Colour, hazen unit/true colour unit	not more than 2
(2)	Odour	Agreeable
(3)	Taste	Agreeable
(4)	Turbidity	Not more than 2 nephelometric turbidity unit (NTU)
(5)	Total Dissolved Solids	150-700 mg/litre
(6)	pH	6.5-8.5
(7)	Nitrates (as NO <sub>3</sub> )	Not more than 50 mg/litre
(8)	Nitrites (as NO <sub>2</sub> )	Not more than 0.02 mg/litre
(9)	Sulphide (as H <sub>2</sub> S)	Not more than 0.05 mg/litre Not more than 0.05 mg/litre
(10)	Mineral oil	Absent
(11)	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	Absent
(12)	Manganese (as Mn)	Not more than 2.0 mg/litre
(13)	Copper (as Cu)	Not more than 1 mg/litre
(14)	Zinc (as Zn)	Not more than 5 mg/litre
(15)	Fluoride (as F)	Not more than 1 mg/litre
(16)	Barium (as Ba)	Not more than 1.0 mg/litre
(17)	Antimony (as Sb)	Not more than 0.005 mg/litre
(18)	Nickel (as Ni)	Not more than 0.02 mg/litre

(19)	Borate (as B)	Not more than 5 mg/litre
(20)	Surface active agents	Not detectable
(21)	Silver (as Ag)	Not more than 0.01 mg/litre
(22)	Chlorides (as Cl)	Not more than 200 mg/litre
(23)	Sulphate (as SO <sub>4</sub> )	Not more than 200 mg/litre
(24)	Magnesium (as Mg)	Not more than 50 mg/litre
(25)	Calcium (as Ca)	Not more than 100 mg/litre
(26)	Sodium (as Na)	Not more than 150 mg/litre
(27)	Alkalinity (as HCO <sub>3</sub> )	75-400 mg/litre
(28)	Arsenic (as As)	Not more than 0.05 mg/litre
(29)	Cadmium (as Cd)	Not more than 0.003 mg/litre
(30)	Cyanide (as CN)	Absent
(31)	Chromium (as Cr)	Not more than 0.05 mg/litre
(32)	Mercury (as Hg)	Not more than 0.001 mg/litre
(33)	Lead (as Pb)	Not more than 0.01 mg/litre
(34)	Selenium (as Se)	Not more than 0.05 mg/litre
(35)	Poly nuclear aromatic hydrocarbons	Not Detectable
(36)	Polychlorinated biphenyle (PCB)	Not detectable
(37)	Pesticide Residue	below detectable limits
(38)	"Alpha" activity	Not more than 0.1 Bacquerel/litre (Bq)
(39)	"Beta" activity	Not more than 1 Bacquerel/litre (Bq)]
(40)	Yeast and mould counts	Absent
(41)	Salmonella and Shigella	Absent
(42)	E.Coli orthermotolerant Coliforms 1 x 250ml	Absent
(43)	Total coliform bacteria Ax 250 ml	Absent
(44)	Fecal streptococci and Staphylococcus aureus 1 x 250 ml	Absent
(45)	Pseudomonas aeruginosa 1 x 250 ml	Absent
(46)	Sulphite-reducing anaerobes 1 x 50 ml	Absent
(47)	Vibrocholera 1 x 250 ml	Absent
(48)	V Paraheamolyticus 1 x 250 ml	Absent

Packaged drinking water (other than Mineral water):- means water derived from surface water or underground water or sea water which is subjected to hereinunder specified treatments, namely, decantation, filtration, combination of filtration, aerations, filtration with membrane filter depth filter, cartridge filter, activated carbon filtration, de-mineralisation, re-mineralisation, reverse osmosis and packed after disinfecting the water to a level that shall not lead to any harmful contamination in the drinking water by means of chemical agents or physical methods to reduce the number of micro-organisms to a level beyond scientifically accepted level for food safety or its suitability:

Provided that sea water, before being subjected to the above treatments, shall be subjected to desalination and related processes

The related packaging and labelling requirements are provided in regulation 2.1.2 , 2.2.1 and 2.4.5 of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

It shall conform to the following standards namely:

<i>Sl.No.</i>	<i>Characteristic</i>	<i>Requirements</i>
(1)	(2)	(3)
(1)	Colour	not more than 2 Hazen Units/ True Colour Units
(2)	Odour	Agreeable
(3)	Taste	Agreeable
(4)	Turbidity	Not more than 2 nephelometric turbidity unit (NTU)
(5)	Total Dissolved Solids	Not more than 500 mg/litre
(6)	pH	6.5-8.5
(7)	Nitrates (as NO <sub>3</sub> )	Not more than 45 mg/litre
(8)	Nitrites (as NO <sub>2</sub> )	Not more than 0.02 mg/litre
(9)	Sulphide (as H <sub>2</sub> S)	Not more than 0.05 mg/litre
(10)	Mineral Oil	Absent
(11)	Phenolic compounds C <sub>6</sub> H <sub>5</sub> OH)	Absent (as
(12)	Manganese (as Mn)	Not more than 0.1 mg/litre
(13)	Copper (as Cu)	Not more than 0.05 mg/litre
(14)	Zinc (as Zn)	Not more than 5 mg/litre
(15)	Fluoride (as F)	Not more than 1.0 mg/litre
(16)	Barium (as Ba)	Not more than 1.0 mg/litre
(17)	Antimony (as Sb)	Not more than 0.005 mg/litre
(18)	Nickel (as Ni)	Not more than 0.02 mg/litre
(19)	Borate (as B)	Not more than 5 mg/litre
(20)	Anionic surface active agents (as MBAS)	Not more than 0.2 mg/litre
(21)	Silver (as Ag)	Not more than 0.01 mg/litre
(22)	Chlorides (as Cl)	Not more than 200 mg/litre
(23)	Sulphate (as SO <sub>4</sub> )	Not more than 200 mg/litre
(24)	Magnesium (as Mg)	Not more than 30 mg/litre
(25)	Calcium (as Ca)	Not more than 75 mg/litre
(26)	Sodium (as Na)	Not more than 200 mg/litre
(27)	Alkalinity (as HCO <sub>3</sub> )	Not more than 200 mg/litre
(28)	Arsenic (as As)	Not more than 0.05 mg/litre
(29)	Cadmium (as CD)	Not more than 0.01 mg/litre
(30)	Cyanide (as CN)	Absent
(31)	Chromium (as Cr)	Not more than 0.05 mg/litre
(32)	Mercury (as Hg)	Not more than 0.001 mg/litre
(33)	Lead (as Pb)	Not more than 0.01 mg/litre

(1)	(2)	(3)
(34)	Selenium (as Se)	Not more than 0.01 mg/litre
(35)	Iron (as Fe)	Not more than 0.1 mg/litre
(36)	Poly nuclear aromatic Hydrocarbons	Not detectable
(37)	Polychlorinated biphenyle (PCB)	Not detectable
(38)	Aluminium (as Al)	Not more than 0.03 mg/litre
(39)	Residual free chlorine	Not more than 0.2 mg/litre
(40)	(i) Pesticide residues considered individually -	Not more than 0.0001 mg/ litre (The analysis shall be conducted by using Internationally established test methods meeting the residue limits specified herein).
	(ii) Total pesticide residue —	Not more than 0.0005 mg/litre. (The analysis shall be conducted by Using Internationally established test methods meeting the residue limits specified herein).
(41)	"Alpha" activity	Not more than 0.1 picocurie/Litre (Bq)
(42)	"Beta" activity	Not more than 1 Bacquerel/Litre (Bq)
(43)	Yeast and mould counts 1 x 250 ml.	Absent
(44)	Salmonella and Shigella 1 x 250 ml	Absent
(45)	E.Coli or thermotolerant bacteria 1 x 250 ml	Absent
(46)	Coliform bacteria 1 x 250 ml	Absent
(47)	Faecal streptococci and Staphylococcus aureus 1 x 250 ml	Absent
(48)	Pseudomonas aeruginosa 1 x 50 ml	Absent
(49)	Sulphite reducing anaerobes 1x50	Absent
(50)	Vibrio cholera and V. parahaemolyticus 1 x 250 ml	Absent
(51)	Aerobic Microbial Count	The total viable colony count shall not exceed 100 per ml at 20 <sup>0</sup> C to 22 <sup>0</sup> C in 72 h on agar- agar or on agar - gelatin mixture, and 20 per ml at 37 <sup>0</sup> C in 24 h on agar-agar.

#### OTHER FOOD PRODUCT AND INGREDIENTS

**BAKING POWDER:** means a combination capable, under conditions of baking, of yielding carbon dioxide and consists of sodium bicarbonate, and acid-reacting material, starch or other neutral material.

The acid-reacting material of baking powder shall be :—

- tartaric acid or its salts, or both
- acid salts of phosphoric acid, or
- acid compounds of aluminium, or
- any combination of the foregoing.





Alkalinity of total ash	Not more than 6.0 per cent as K <sub>2</sub> O (on moisture and fat free basis)
Cocoa butter	
(i) for low fat	Not less than 10.0 percent (on moisture free basis)
(ii) for high fat	Not less than 20.0 percent (on moisture free basis)

: CAROB POWDER means the powder obtained from the roasted pods of carob (fibbled carob) of Ceratonia Siliqua (L) Taub. (fam. Leguminosae) and shall be free from husk. It shall be free from any artificial colouring, flavouring, extraneous matter or glazing substance and shall be in sound, dry and fresh condition, free from rancid or obnoxious flavours. It shall also conform to the following standards, namely:—

Total ash	Not more than 1.2 per cent by weight.
Acid insoluble matter	Not more than 5 per cent by weight.
Tannin content	Not less than 0.1 per cent and not more than 0.15 percent.

: Proprietary Food

2.12.1

- 1) Proprietary food means a food that has not been standardized under these regulations
- 2) In addition to the provisions including labelling requirements specified under these regulations, the proprietary foods shall also conform to the following requirements, namely:—
  - (i) the name describing as clearly as possible, the nature or composition of food and/or category of the food under which it falls in these regulations shall be mentioned on the label
  - (ii) the proprietary food product shall comply with all other regulatory provisions specified in these regulations and in Appendices A and B.

IRRADIATION OFFOOD

: Dose of Irradiation:

- 1) Same as provided in regulation 2.13.1 (2) no food shall be irradiated.
- 2) No article of food permitted for irradiation specified in column 2 of the Table given below shall receive the dose of irradiation in excess of the quantity specified in column 3 of the said Table at the time of irradiation :—

Sl.No.	Name of Foods	Dose of Irradiation (KGY)		
		Minimum	Maximum	Overall average
1.	Onions	0.03	0.09	0.06
2.	Spices	6	14	10
3.	Potatoes	0.06	0.15	0.10
4.	Rice	0.25	1.0	0.62
5.	Semolina (Sooji or Rawa), Wheat, atta and Maida	0.25	1.0	0.62
6.	Mango	0.25	0.75	0.50
7.	Raisins, Figs and Dried Dates	0.25	0.75	0.50
8.	Ginger, Garlic and Shallots (Small Onions)	0.03	0.15	0.09
9.	Meat and Meat Products including Chicken	2.5	4.0	3.25
10.	Fresh Sea foods	1.0	3.0	2.00
11.	Frozen Sea foods	4.0	6.0	5.00
12.	Dried Sea foods	0.25	1.0	0.62
13.	Pulses	0.25	1.0	0.62

3) Routine quantitative dosimetry shall be made during operation and record kept of such measurement as provided under Deptt. of Atomic Energy (Control of Irradiation of Food) Rules 1991.

: Requirement for the process of Irradiation:—

1) Approval of facilities - No irradiation facility shall be used for the treatment of food unless such facility  
(i) has been approved and licensed under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.  
(ii) complies with the conditions for approval, operation, license and process control prescribed under the Atomic Energy (Control of Irradiation of Food) Rules 1991.

(iii) carries out irradiation in accordance with the provisions of the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

2) Foods once irradiated shall not be re-irradiated unless specifically so permitted by the Licensing Authority for the Irradiation process control purposes.

3) No Food/irradiated food shall leave the irradiation facility unless it has been irradiated in accordance with the provisions of Deptt. of Atomic Energy (Control of Irradiation of Food) Rules, 1991 and a certificate of irradiation indicating the dose of irradiation and the purpose of irradiation is provided by the competent authority.

: Restrictions on Irradiation of Food:

1) The irradiation shall conform to the dose limit and the radiation source to the specific conditions prescribed for each type or category of Food specified for treatment by irradiation, under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

2) Food which has been treated by irradiation shall be identified in such a way as to prevent its being subjected to re-irradiation.

3) The irradiation shall be carried out only by personnel having the minimum qualifications and training as prescribed for the purpose under the Atomic Energy (Control of Irradiation of Food) Rules, 1991.

4) Food once irradiated shall not be re-irradiated unless specifically so permitted under these regulations.

: Record of Irradiation of Food:

Any treatment of Food by irradiation shall be recorded by an officer authorised by the competent authority as specified under the Deptt. of Atomic Energy (Control of Irradiation of Food) Rules, 1991 as follows :—

- (a) Name of the article;
- (b) License No.;
- (c) Name, address and other details of Licensee;
- (d) Purpose of Irradiation;
- (e) Source of Irradiation;
- (f) Date of Irradiation;
- (g) Dose of Irradiation;
- (h) Serial Number of Batch;
- (i) The nature, quality of Food to be irradiated and the Batch number;
- (j) Quantity of Food Irradiated;
- (k) Physical appearance of article; before and after irradiation;
- (l) Type of packaging used during the irradiation treatment and for packing the irradiated food;

: Standards of Irradiated Food :

The irradiated foods shall comply with all the provisions of the Food Safety and Standards Act and the regulations made thereunder specifying standards of such food.

: Storage and sale of irradiated food. Save as otherwise provided in these regulations, no person shall irradiate for sale, store for sale, or transport for sale irradiated food.

: Restriction on sale of Irradiated Food.- Irradiated food shall be offered for sale only in prepackaged conditions.

Chapter 3: SUBSTANCES  
ADDED TO FOOD

: Food Additives

For the purpose of this regulation "Good Manufacturing Practices (GMP) for use of food additives" means the food additives used under the following conditions namely

- (i) the quantity of the additive added to food shall be limited to the lowest possible level necessary to accomplish its desired effect;
- (ii) the quantity of the additive becomes a component of food as a result of its uses in the manufacturing, processing or packaging of a food and which is not intended to accomplish any physical or other technical effect in the food itself; is reduced to the extent reasonably possible; and
- (iii) the additive is prepared and handled in the same way as a food ingredient.

3.1.1:

1) Use of Food Additives in Food Products:

The food products may contain food additives as specified in these Regulations and in Appendix A.

2) Use of food additives in traditional foods. - The traditional foods namely, - Snacks of Savouries (Fried Products), such as Chiwda, Bhujia, Dalmoth, Kadubale, Kharaboondi, Spiced and fried dals, banana chips and similar fried products sold by any name, Sweets, Carbohydrates based and Milk product based, such as Halwa, Mysore Pak, Boondi Ladoo, Jalebi, Khoya Burfi, Pedda, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name, Instant Mixes Powders only of Idli mix, dosa mix, puliyogare mix, pongal mix, gulab jamoon mix, jalebi mix, vada mix, Rice and Pulses based Papads, Ready-to-Serve Beverages (tea/coffee based only) may contain food additives permitted in these regulations and in Table 2 of Appendix A.

3) Use of additives in Bread, Biscuits - The food products such as Bread and Biscuits, may contain food additives permitted in these regulations and in Table 1 of Appendix A.

4) Use of Food Additives in different foods. - The following food products may contain food additives permitted in these regulations and in Table 3 of Appendix A, namely:-

- (i) Dairy based drinks, flavoured and or fermented (e.g. chocolate milk) cocoa, eggnog-UHT Sterilised shelf life more than three months), Synthetic soft drink concentrate, mix/fruit based beverage mix, soups, bullions and taste makers, dessert jelly, custard powder, jelly crystal, flavour emulsions and flavour paste (for use in carbonated and non-carbonated beverages);
- (ii) Sausages and sausage meat containing raw meat, cereals and condiments.
- (iii) Fruit pulp or juice (not dried) for conversions into jam or crystallized glazed or cured fruit or other product;
- (iv) Corn Flour and such like starches;
- (v) Corn syrup;
- (vi) Canned Rasogolla (the cans shall be internally) lacquered with sulphur dioxide resistant lacquer;
- (vii) Gelatine;
- (viii) Beer;
- (ix) Cider;
- (x) Alcoholic Wines;
- (xi) Non-alcoholic wines;
- (xii) Ready-to-Serve beverage;
- (xiii) Brewed ginger beer;
- (xiv) Coffee Extract;
- (xv) Danish tinned caviar;
- (xvi) Dried ginger;

- (xvii) Flour confectionery;
- (xviii) Smoked fish (in wrappers);
- (xix) Dry mixes of Rasgollas;
- (xx) Preserved Chapaties;
- (xxi) Fat Spread;
- (xxii) Prunes;
- (xxiii) Baked food confections and baked foods;
- (xxiv) Flour for baked food;
- (xxv) Packed Paneer;
- (xxvi) Cakes and Pastries; and
- (xxvii) Prepackaged Coconut Water, Canned Rasogulla.

#### Colouring Matter

1) Unauthorized addition of colouring matter prohibited - The addition of colouring matter to any article of food except as specifically permitted by these regulations is prohibited.

2) Natural colouring matters which may be used - Except as otherwise provided in these Regulations and Appendices, the following natural colouring principles whether isolated from natural colours or produced synthetically may be used in or upon any article of food.

- (a) Carotene & Carotenoids including
  - (i) Beta-carotene;
  - (ii) Beta-apo 8'-carotenal;
  - (iii) Methyl ester of Beta-apo 8' carotenoic acid,
  - (iv) Ethyl ester of Beta-apo 8' carotenoic acid,
  - (v) Canthaxanthin;
- (b) Chlorophyll;
- (c) Riboflavin (Lactoflavin).
- (d) Caramel.
- (e) Annatto
- (f) Saffron
- (g) Curcumin or turmeric

Explanation - In the preparation of the solution of annatto colour in oil, any edible vegetable oil listed in Chapter 2 to these regulations may be used either singly or in combination and the name of the oil or oils used shall be mentioned on the label as provided in Regulation 2.4.2(10) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

3) Addition of inorganic colouring matters and pigments prohibited - Inorganic colouring matters and pigments shall not be added to any article of food unless otherwise provided in these Regulations and Appendices

4) Synthetic food colours which may be used

No Synthetic food colours or a mixture thereof except the following shall be used in food.

<i>Sl No.</i>	<i>Colour</i>	<i>Common name</i>	<i>Colour index (1956)</i>	<i>Chemical</i>	<i>class</i>
1.	Red	Ponceau 4R	16255	Azo	
		Carmoisine	14720	Azo	
		Erythrosine	45430	Xanthene	
2.	Yellow	Tartrazine	19140	Pyrazolone	
		Sunset Yellow FCF	15985	Azo	
3.	Blue	Indigo Carmine	73015	Indigoid	
		Brilliant Blue FCF	42090	Triarylmethane	
4.	Green	Fast Green FCF	42053	Triarylmethane	

5) Use of Lake Colours as colourant in foods

Aluminium Lake of Sunset Yellow FCF may be used in powdered dry beverages mix (powdered soft drink concentrate) upto a maximum limit of 0.04 percent by weight. The maximum limit of colour content in final beverage for consumption shall not exceed 8.3 ppm and that of aluminium content shall not exceed 4.4 ppm of the final beverage for consumption:

Provided that the powdered dry beverages mix (powdered soft drink concentrate) label shall give clear instruction for reconstitution of product for making final beverage

(6) Use of permitted synthetic food colours prohibited - Use of permitted synthetic food colours in or upon any food other than those enumerated below is prohibited :-

- (i) Ice-cream, milk lollies, frozen desserts, flavoured milk, yoghurt, ice-cream mix-powder;
- (ii) Biscuits including biscuit wafer, pastries, cakes, confectionery, thread candies, sweets, savouries (dalmoth, mongia, phululab, sago papad, dal biji only);
- (iii) Peas, strawberries and cherries in hermetically sealed containers, preserved or processed papaya, canned tomato juice, fruit syrup, fruit squash, fruit crushes, fruit cordial, jellies, jam, marmalade, candied crystallised or glazed fruits;
- (iv) Non-alcoholic carbonated and non-carbonated ready to serve synthetic beverages including synthetic syrups, sharbats, fruit bar, fruit beverages, fruit drinks, synthetic soft-drink concentrates;
- (v) Custard powder;
- (vi) Jelly crystal and ice-candy;
- (vii) Flavour emulsion and flavour paste for use in carbonated or non-carbonated beverages only under label declaration as provided in regulation 2.4.5 (35) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

7) Maximum limit of permitted synthetic food colours - The maximum limit of permitted synthetic food colours or mixture thereof which may be added to any food article enumerated in regulation 3.1.2(6) and Appendix A of these Regulations shall not exceed 100 parts per million of the final food or beverage for consumption, except in case of food articles mentioned in clause (iii) of regulation 3.1.2 (6) where the maximum limit of permitted synthetic food colours shall not exceed 200 parts per million of the final food or beverage for consumption.

8) Colours to be pure - The colours specified in these Regulations, when used in the preparation of any article of food shall be pure and free from any harmful impurities.

Artificial Sweeteners

1) Use and sale of artificial Sweeteners

Artificial sweeteners mentioned in column 2 of the table below, may be used only in the food articles mentioned in column 3 and in quantities not exceeding the limits mentioned in column 4 and as per provision contained in these

regulations and Appendices and shall bear the label declarations as provided in the regulation 2.4.5 (24, 25, 26, 27, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Sl. No.	Name of Artificial Sweetener	Article of food	Maximum limit of Artificial		
1	2	3	4		
I.	Saccharin Sodium	Carbonated Water	100 ppm		
		Soft Drink Concentrate	*100 ppm		
		Supari	4000 ppm		
		Pan Masala	8000 ppm		
		Pan Flavouring Material	8.0 percent		
		Synthetic Syrup for dispenser	450 ppm		
		Sweets (Carbohydrates based and Milk products based) : Halwa, Mysore Pak, Boondi Ladoo, Jalebi, Khoya Burfi, Peda, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name.	500 ppm		
		Chocolate (White, Milk, Plain, Composite And Filled)	500 ppm		
		Sugar based/ Sugar free confectionery	3000 ppm		
		Chewing gum /Bubble gum	3000 ppm		
		II.	Aspartame (methylester)	Carbonated Water	700 ppm
				Soft Drink concentrate	*700 ppm
				Biscuits, Bread, Cakes and Pasteries	2200 ppm
				Sweets (Carbohydrates based and Milk products based) : Halwa, Mysore Pak, Boondi Ladoo, Jalebi, Khoya Burfi, Peda, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name	200 ppm
Jam, Jellies, Marmalades	1000 ppm				
Chocolate (White, Milk, Plain, Composite And Filled)	2000 ppm				
Sugar based/ Sugar free confectionery	10000 ppm				
Chewing gum/ Bubble gum	10000 ppm				
Synthetic Syrup for dispenser	3000 ppm				
Custard powder mix	1000 ppm				
Vegetarian jelly crystals	3000 ppm				
Fruit Nectar	600 ppm				
Vegetable Nectar	600 ppm				
Ice Cream, Frozen Dessert and Pudding	1000 ppm				
Flavoured Milk	600 ppm				
Ready to Serve Tea and Coffee based Beverages	600 ppm				
Yoghurt	600 ppm				
Ready to eat Cereals	1000 ppm				
Non-Carbonated water based beverages (non-alcoholic)	600 ppm				
III.	Acesulfame Potassium	Carbonated water	300 ppm		
		Soft Drink concentrate	*300 ppm		
		Biscuits, Bread, Cakes and Pasteries	1000 ppm		
		Sweets (Carbohydrates based and Milk products based) : Halwa, Mysore Pak, Boondi Ladoo, Jalabi, Khoya Burfi, Peda, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name	500 ppm		

1	2	3	4
		Chocolate (White, Milk, Plain, Composite and Filled)	500 ppm
		Sugar based/ Sugar free confectionery	3500 ppm
		Chewing gum/ Bubble gum	5000 ppm
		Synthetic Syrup for dispenser	1500 ppm
		Ready to serve tea and coffee based Beverages	600 ppm
		Ice lollies / ice candy	800 ppm
		cereal based beverages	500 ppm
		Fruit Nectars	300ppm
		Concentrate for fruit nectars	300 ppm (in final Beverage for consumption)
		Non carbonated water based beverages (non alcoholic)	300 ppm
IV.	Sucralose	Carbonated water	300 ppm
		Soft drink concentrate	*300 ppm
		Biscuits, breads, cakes and Pastries	750 ppm
		Sweets (Carbohydrates based and Milk products based) : Halwa, Mysore Pak, Boondi Ladoo, Jalebi, Khoya Burfi, Peda, Gulab Jamun, Rasogolla and similar milk product based sweets sold by any name	750 ppm
		Yoghurts	300 ppm
		Sweetened butter milk	300 ppm
		Ice Cream	400 ppm
		Jam, Jellies and Marmalades	450 ppm
		Frozen fruit	150 ppm
		Chutney	800 ppm
		Confectionery	1500 ppm
		Chewing gum	1250 ppm
		Cookies	750 ppm
		Doughnuts /scones /muffins	800 ppm
		Cake mixes	700 ppm
		Ready to serve tea and coffee beverages	600 ppm
		Ice lollies/Ice candy	800 ppm
		Vegetable juice	250 ppm
		Vegetable nectar	250 ppm
		Concentrates for vegetable juice	1250 ppm
		Concentrate for vegetable nectar	1250 ppm
		Lozenges	1500 ppm
		Non-carbonated water based beverages (non-alcoholic)	300 ppm
		Jelly Crystals	*300 ppm
		Custard powder/ ready to eat custard dessert	*260 ppm
		Chocolate	800 ppm
		Dried ice cream mixes	**400 PPM
		Frozen Dessert	400 PPM
		Milk lollies and milk ices	400 PPM
V.	Neotame	Carbonated water	33 ppm
		Soft drink concentrate	*33 ppm

*Explanation I* : Pan flavouring material refers to the flavouring agents permitted for human consumption to be used for pan. It shall be labelled as—

"PAN FLAVOURING MATERIAL"

*\*Explanation II* : Maximum limit of artificial sweetener in the product shall be as in reconstituted beverage or food or in final beverage or food for consumption, as the case may be. The product label shall give clear instruction for reconstitution of products for making final beverage or food for consumption as the case may be.

Provided where the artificial sweetener(s) is/are used in carbonated water / sweetened aerated water / fruit beverage / carbonated fruit beverage / fruit nectar, the requirement of minimum total soluble solids shall not apply

Provided further that Saccharin Sodium or Aspartame (Methyl ester) or Acesulfame Potassium or Sucralose or Neotame may be sold individually as Table Top Sweetener and may contain the following carrier or filler articles with label declaration as provided in Regulation 2.4.5 (24, 25, 26, 27, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. namely:—

- (i) Dextrose
- (ii) Lactose
- (iii) Maltodextrin
- (iv) Mannitol
- (v) Sucrose
- (vi) Isomalt
- (vii) Citric Acid
- (viii) Calcium silicate
- (ix) Carboxymethyl Cellulose
- (x) Cream of Tartar, IP
- (xi) Cross Carmellose sodium
- (xii) Colloidal silicone dioxide
- (xiii) Glycine
- (xiv) L-leucine
- (xv) Magnesium stearate IP
- (xvi) Purified Talc
- (xvii) Poly vinyl pyrrolidone
- (xviii) Providone
- (xix) Sodium hydrogen carbonate
- (xx) Starch
- (xxi) Tartaric acid
- (xxii) Erythritol.

Provided further also that where sucralose is marketed as Table Top Sweetener, the concentration of sucralose shall not exceed six mg per tablet or hundred mg of granule.

*\*\* Explanation III*: Maximum limit of artificial sweetener in Dried Ice cream Mixes shall be as in reconstituted ice-cream for consumption and the Dried Ice-cream Mixes label shall give clear instruction for reconstitution of products for making final ice cream"

2) No mixture of artificial sweeteners shall be added to any article of food or in the manufacture of table top sweeteners.

Provided that in case of carbonated water, softdrink concentrate and synthetic syrup for dispenser, wherein use of aspartame and acesulfame potassium have been allowed in the alternative, as per Table under Regulation

(1), these artificial sweeteners may be used in combination with one or more alternative if the quantity of each artificial sweetener so used does not exceed the maximum limit specified for that artificial sweetener in column (4) of



the said Table as may be worked out on the basis of proportion in which such artificial sweeteners are combined. The products containing mixture of artificial sweeteners shall bear the label as provided in regulation 2.4.5 (28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided that in carbonated water, the combination of Sucralose and Acesulfame K may be used on ratio not to exceed proportionate levels of the permissible levels allowed for these individual artificial sweeteners in carbonated water under label declaration in Regulation 2.4.5 (29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Provided further that mixture of Aspartame (methylester) and Acesulfame K (in ratio 2:1) may be marketed as table top sweetener and may contain the carrier or filler articles as mentioned in the proviso given under the table in Regulation 3.1.3 (1) and under label declaration as provided in regulation 2.4.5 (24, 25, 26, 28 & 29) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Illustration:- In column (3) of the said Table, in carbonated water, Aspartame (Methyl Ester) or Acesulfame Potassium may be added in the proportion of 700 ppm or 300 ppm respectively. If both artificial sweeteners are used in combination and the proportion of aspartame (Methyl Ester) is 350 ppm, the proportion of Acesulfame Potassium shall not exceed the proportion of 150 ppm;

3) No person shall sell table top sweetener except under label declaration as provided in these Regulations.

Provided that aspartame may be marked as a table top sweetener in tablet or granular form in moisture proof packages and the concentration of aspartame shall not exceed 18 mg per 100 mg of tablet or granules.

4) Use of Polyols in Foods:

No polyols shall be added to any article of food except those mentioned in the table below, in quantities not exceeding the limits shown against them as per provision contained in Appendix A of these Regulations and shall bear the label declaration as per regulation 2.4.5 (46) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011.

Sl. No	Name of Polyols	Article of Food	Maximum limit
1.	Isomalt	(i) Traditional Indian sweets (carbohydrate based and milk based), halwa, mysore paag, boondi laddoo, jalebi, khoya burfi, peda, gulab jamun, rasgulla, and similar milk based sweets sold by any name (ii) Instant sweetmeat mixes (e.g. pongal mix, gulab jamun mix, jalebi mix) (iii) Bakery products (iv) Jams, jellies and Marmalades (v) Edible Ice (vi) Ice cream, frozen dessert, sweetened yoghurt	GMP
2.	Erythritol	Dairy drinks (chocolate and flavoured milk), Carbonated Beverages, Non-Carbonated Water based Beverages (non-alcoholic), Ice Cream, Yoghurt, Puddings, Non Dairy Toppings, Bakery Mixes, Cakes, cookies & pastries, Ready to eat breakfast cereals, soft candies, chocolate and hard candies	GMP
3.	Maltitol / Maltitol syrup	Bakery products, Ice Cream, Frozen Desserts, Jams, Jellies and Marmalades	GMP

5) Use of Polydextrose in Foods

Polydextrose may be used in following food articles as per GMP levels and proper label declaration as provided in regulation 2.4.5 (47) of FSS (Packaging & Labeling) Reg. 2011.

Ice Cream, Frozen Desserts, Cakes, Biscuits, Yoghurt, Whip topping, Sugar boiled Confectionery, Lozenges, Jam, fruit jelly, Traditional Indian sweets (carbohydrate based and milk based), halwa, mysore pak, boondi laddoo, jalebi, khoya Burfi, peda, gulab jamun, rasgulla, and similar milk product based sweets sold by any name.

: Preservatives - "Preservative" means a substance which when added to food, is capable of inhibiting, retarding or arresting the process of fermentation, acidification or other decomposition of food.

1) Classification of Preservatives:

Preservatives shall be divided into following classes :

a. Class I preservative shall be :-

- (i) Common salt.
- (ii) Sugar.
- (iii) Dextrose.
- (iv) Glucose Syrup.
- (v) Spices.
- (vi) Vinegar or acetic acid.
- (vii) Honey
- (viii) Edible vegetable oils

Addition of Class I preservatives in any food is not restricted, unless otherwise provided in the regulations including Appendix A.

Provided that the article of food to which a Class I preservative has been added conforms to the specifications laid down in Chapter 2 of these regulations.

b. Class II preservatives shall be :-

- (i) Benzoic acid including salts thereof,
- (ii) Sulphurous acid including salts thereof,
- (iii) Nitrates or Nitrites of Sodium or Potassium in respect of food like ham, pickled meat,
- (iv) Sorbic acid including its sodium, potassium and calcium salts, propionates of calcium or sodium, lactic acid, and acid calcium phosphate.
- (v) Nisin
- (vi) Sodium and calcium propionate.
- (vii) Methyl or propylParahydroxy-Benzoate.
- (viii) Propionic acid, including esters or salt thereof,
- (ix) Sodium diacetate, and
- (x) Sodium, potassium and calcium salts of lactic acid.

2) Use of more than one Class II preservative prohibited.

- (i) No person shall use in or upon a food more than one Class II preservative:

Provided that where in column (2) of the table given in the regulation 3.1.4 (3) the use of more than one preservative has been allowed in the alternative, those preservatives may, notwithstanding anything contained in regulation 3.1.4 (3) of these Regulations, be used in combination with one or more alternatives, provided the quantity of each preservative so used does not exceed such number of parts out of those specified for that preservative in column (3) of the aforesaid table as may be worked out on the basis of the proportion in which such preservatives are combined.

Illustration.-In the group of foods specified in Item 6 of the table given in regulation 3.1.4 (3) of these Regulations, sulphur dioxide or Benzoic acid can be added in the proportion of 40 parts per million or 200 parts per million respectively. If both preservatives are used in combination and the proportion of sulphur dioxide is 20 parts per million, the proportion of Benzoic acid shall not exceed the proportion of 100 parts per million.

3) Use of Class II preservatives restricted.

The use of Class II preservatives shall be restricted to the following group of foods in concentration not exceeding the proportions given below against each.

<i>Sl. No.</i>	<i>Article of Food</i>	<i>Preservative</i>	<i>Parts per million</i>
(1)	(2)	(3)	(4)
1.	Sausages and sausage meat containing raw meat , cereals and condiments	Sulphur dioxide	450
2.	Fruit, fruit pulp, juice (not dried) for conversion into jam or crystallized glace or cured fruit or other products :		
	a) Cherries	-do-	2,000
	b) Strawberries and raspberries	-do-	2,000
	c) Other fruits	-do-	1,000
3.	Fruit juice concentrate	-do-	1,500
4.	Dried Fruits		
	a) Apricots, peaches, apples, pears and other fruits	-do-	2000
	b) Raisins and Sultanas	-do-	750
5.	Other non alcoholic wines, squashes, crushes, fruit syrups, cordials, fruit juices and barley water to be used after dilution	Sulphur dioxide or Benzoic acid	350  600
6.	Jam , marmalade, preserve canned cherry and fruit jelly	Sulphur dioxide  Or Benzoic acid	40   200
7.	Crystallized glace or cured fruit (including candid peel)	Sulphur dioxide	150
8.	Fruit and fruit pulp not otherwise specified in the schedule	Sulphur dioxide	350
9.	Plantation white sugar , cube sugar, dextrose, gur, jaggery, misri	Sulphur dioxide	70
10.	Khandsari (Sulphur) and Bura	-do-	150
11.	Refined sugar	-do-	40
11.	Corn flour and such like starches	-do-	100
12.	Corn syrup	-do-	450
13.	Canned Rasgolla (The cans shall be internally lacquered with sulphur dioxide resistant laquer)	-do-	100
14.	Gelatine	-do-	1000
15.	Beer	Sulphur dioxide	70
16.	Cider	-do-	200
17.	Alcoholic Wines	-do-	450
18.	Ready to serve beverages	Sulphur dioxide or Benzoic Acid	70 120
19.	Brewed ginger beer	Benzoic Acid	120
20.	Coffee extract	-do-	450
21.	Pickles and chutneys made from fruits or vegetables	Benzoic Acid or Sulphur dioxide	250 100
22.	Tomato and other sauces	Benzoic Acid	750

(1)	(2)	(3)	(4)
23.	Pickled meat and bacon	Sodium and/or Potassium Nitrite expressed as Sodium Nitrite	200
24.	Corned Beef	Sodium and/or Potassium Nitrite expressed as Sodium Nitrite	100
25.	Meat Food Products	Sodium and /or Potassium Nitrite expressed as Sodium Nitrite	200
26.	Danish tinned caviar	Benzoic acid	50
27.	Dehydrated vegetables	Sulphur dioxide	2,000
28.	Tomato puree and paste	Benzoic acid	750
29.	Syrups and sharbats	Sulphur dioxide	350
		or	
		Benzoic acid	600
30.	Dried ginger	Sulphur dioxide	2,000
31.	Cheese or processed cheese	Sorbic acid including its sodium, potassium and calcium salt (calculated as sorbic acid )	3,000
		Nisin	12.5
32.	Flour confectionery	Sorbic acid including its sodium, potassium and calcium salt (calculated as sorbic acid )	1,500
33.	Smoked fish (in wrappers)	Sorbic acid	Only wrappers may be impregnated with sorbic acid
34.	Dry mixes of rasgollas	Sulphur dioxide	100
35.	a ) Soups (other than canned )	Sulphur dioxide	150
	b) Dried Soups	Sulphur dioxide	1,500
	c) Dehydrated soup mix when packed in containers other than cans	Sulphur dioxide	1,500
36.	Fruits, vegetables , flakes, powder, figs	Sulphur dioxide	600
37.	Flour for baked food	Sodium diacetates or propionates or methyl propyl hydroxy benzoate	2,500 3,200 500
38.	Preserved chappatis	Sorbic acid	1,500
39.	Paneer or channa	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid)	2,000
		Or	

(1)	(2)	(3)	(4)
		Propionic acid and its sodium or potassium salts (calculated as propionic acid)	2,000
40.	Fat spread	Sorbic acid and its sodium potassium and calcium salts (calculated as sorbic acid) Or Benzoic acid and its sodium or potassium salts (calculated as benzoic acid) or both	1,000  1,000 1,000
41.	Jams, jellies, marmalades, preserve, crystallized glazed or candid fruits including candid peels fruit bars	Sorbic acid and its sodium potassium or calcium salts (calculated as sorbic acid)	500
42.	Fruit juice concentrates with preservatives for conversion in juices, nectars for ready to serve beverages in bottles/ pouches selling through dispensers	-do-	100
43.	Fruit juices (tin , bottles or pouches )	-do-	200
44.	Nectars, ready to serve beverages in bottles/pouches selling through dispensers	-do-	50
45.	Prunes	Potassium Sorbate (calculated as sorbic acid)	1000

#### 4) Use of Class II preservatives in mixed foods

In a mixture of two or more foods or groups of foods mentioned against each item in the Table under regulation 3.1.4 (3) of these Regulations the use of Class II preservative or preservatives shall be restricted to the limit up to which the use of such preservative or preservatives is permitted for the foods or groups of foods contained in such mixture.

Illustration.-In the food specified in item 23 of the table given in regulation 3.1.4 (3) sulphur dioxide can be added to dehydrated vegetables in the proportion of 2,000 parts per million. If this food is mixed with the food specified in item 24 given in the said table, that is to say tomato puree and paste, where benzoic acid is permitted to an extent of 250 p.p.m., then in the mixture containing equal parts of these two foods, the proportion of Sulphur dioxide and Benzoic acid, shall be 1,000 p.p.m. and 125 p.p.m. respectively.

#### 5) Restriction on use of nitrate and nitrite.

No nitrate or nitrite shall be added to any infant food.

#### 6) Use of Natamycin for surface treatment of cheese (hard).

Natamycin may be used for surface treatment of cheese (hard) under label declaration as specified in Regulation (33) of packaging and labeling regulations., subject to the following conditions, namely :—

- (i) Maximum level of application of Natamycin shall not exceed 2mg/dm<sup>3</sup>
- (ii) The penetration depth of Natamycin in cheese (hard) shall not exceed 2mm.
- (iii) The maximum residue level of Natamycin in the finished cheese (hard) shall not exceed 1mg/dm<sup>3</sup>

#### : Anti-oxidants,

1) "Anti-oxidant' means a substance which when added to food retards or prevents oxidative deterioration of food and does not include sugar, cereal, oils, flours, herbs and spices;

2) Restriction on use of anti-oxidants.

No antioxidant other than lecithin, ascorbic acid and tocopherol shall be added to any food unless otherwise provided in Chapter 2 and Appendix A of these Regulations

Provided that the following anti-oxidants, not exceeding in concentration mentioned against each, may be added to edible oils and fats except ghee and butter, namely :—

1	Ethyl Gallate		
2	Propyl gallate	or mixture thereof	0.01 percent
3	Octyl gallate		
4	Dodecyl gallate		
5	Ascorbyl palmitate		0.02 percent
6	Butylated hydroxyanisole (BHA)		0.02 percent
7	Citric Acid		0.01 percent
8	Tartaric acid		
9	Gallic acid		
10	Resin Guaiace		0.05 percent
11	Tertiary Butyl Hydro Quinone (TBHQ)		0.02 percent

Provided that dry mixes of Rassgollas and vadas may contain Butylated hydroxyanisole (BHA) not exceeding 0.02 per cent calculated on the basis of fat content:

Provided further that anti-oxidants permitted in the 3.1.5 (2) of these Regulations may be used in permitted flavouring agents in concentration not exceeding 0.01 per cent.

Provided further that wherever Butylated hydroxyanisole (BHA) is used in conjunction with the anti-oxidants mentioned at item Nos. 1 to 4 of the preceding proviso, the quantity of the mixture shall not exceed the limit of 0.02 per cent:

Provided further that Ghee and Butter may contain Butylated hydroxyanisole (BHA) in a concentration not exceeding 0.02 per cent.

Provided further that fat spread may contain Butylated hydroxyanisole (BHA) or Tertiary butyl hydro quinone (TBHQ) in a concentration not exceeding 0.02 per cent by weight on fat basis.

Provided further that ready-to-eat dry breakfast cereals may contain Butylated Hydroxanisole (BHA) not exceeding 0.005 percent (50ppm).

Provided further that in ready to drink infant milk substitute, lecithin and ascorbyl palmitate may be used upto maximum limit of 0.5 gm./100ml. and 1mg./ 100ml. respectively.

Provided further that chewing gum/ bubble gum may contain Butylated hydroxyanisole (BHA) not exceeding 250 ppm.

3) Use of anti-oxidants in Vitamin D Preparation: Vitamin D preparation may contain anti-oxidants prescribed in Regulation 3.1.5 (2) of these Regulations not exceeding 0.08 percent.

: Emulsifying and Stabilising agents

1) Emulsifying agents' and "stabilising agents" means substances which when added to food, are capable of facilitating a uniform dispersion of oils and fats in aqueous media or vice versa, and/or stabilising such emulsions and include the agents specified below and in Chapter 2 and Appendix A of these regulations:

Agar, alginic acid, calcium and sodium alginates, carrageen, edible gums (such as guar, karaya, arabic, carobean, furcellaran, tragacanth, gum ghatti), dextrin, sorbitol, pectin, sodium and calcium pectate, sodium citrate, sodium phosphates, sodium tartrate, calcium lactate, lecithin, albumen, gelatin, quillaia, modified starches, hydrolysed proteins, monoglycerides or diglycerides of fatty acids, synthetic lecithin, propyleneglycol stearate, propyleneglycol alginate, methyl ethyl cellulose, methyl cellulose, sodium carboxy-methyl cellulose, stearyl tartaric acid, esters of monoglycerides and diglycerides of fatty acids monostearin sodium sulphoacetate, sorbitan esters of fatty acids or in combination [poly-oxy-ethylene sorbitan, monostearate] sodium stearyl-2-lactylate and calcium stearyl-2- lactylate Polyglycerol Esters of fatty acids and polyglycerol Ester of interesterified Ricinoleic acid and Glycerol esters of wood rosins (Ester Gum)

2) Restriction on use of emulsifying and stabilizing agents - No emulsifying or stabilising agents shall be used in any food, except where the use of emulsifying or stabilising agent is specifically permitted :

Provided that the following emulsifying or stabilising agents shall not be used in milk and cream, namely:

Monoglycerides or diglycerides of fatty acids, synthetic lecithin, propyl-ene glycol stearate, propyleneglycol alginate, methyl ethyl cellulose, methylcellulose, sodium carboxymethyl cellulose, stearyl tartaric acid, esters of monoglycerides and diglycerides of fatty acids, monostearin sodium sulphoacetate, sorbitan esters of fatty acids or in combination

Provided further that Polyglycerol esters of fatty acids and Polyglycerol ester of interesterified Ricinoleic acid may be used in bakery products and in chocolate to the extent of 0.2 per cent by weight.

Provided that Diacetyl Tartaric acid esters of Mono and Diglycerides may be used in Bread and Cakes.

3) Use of starch phosphate - Starch phosphate, a gum arabic substitute, may be used in syrup, ice-cream powder, salad dressing and pudding to a maximum extent of 0.5 per cent.

4) Use of modified starches - Modified food starches (derivative starches) may be used in confectionery, flavours, dairy products (where use of emulsifier/stabiliser is allowed in Appendix A and Chapter 2. glazes, icings, gravies, sauces, soups, coatings upto a maximum concentration of 0.5 per cent by weight.

Provided that modified food starches (derivative starches) may be used in snacks, frozen potato products, baked foods, and salad dressing/mayonnaise, upto a maximum concentration of 5 percent by weight.

5) Use of emulsifying and stabilising agents in flavouring agents - The emulsifying and stabilising agents may be added to flavouring agents.

6) Use of emulsifying and stabilising agents in fruit products - The following emulsifying and stabilising agents may be added to Fruit Products:

- a. Pectin
- b. Sodium alginate
- c. Calciumalginate
- d. Alginic acid
- e. Propylene glycol alginate.

7) Use of emulsifying and stabilising agents in frozen desserts - The emulsifying and stabilizing agents as defined under the Regulation 3.1.6 (1), may be added to frozen desserts.

8) Use of Hydroxypropyl Methyl Cellulose in various foods

Hydroxypropyl Methyl Cellulose may be used in the following food products, not exceeding the maximum levels mentioned in column 3 of the table given below

Sl No	Article of food	Maximum level
(i)	Non dairy whip topping	2.0%
(ii)	Snacks, savouries, luncheon meat and poultry products, instant mixes such as idli mix, dosa mix, upma mix, pongal mix, puliyogore mix, gulab jamun mix, jalebi mix, vada mix, etc, salad dressing/mayonnaise, mixes for gravies, ice cream, frozen desserts, puddings and custards	1.0%
(iii)	Mixes for dairy based drinks	0.5%

9) Use of Xanthan gum.-Xanthan gum may be used in the following products, namely :—

Non dairy whip toppings	maximum 0.5% by weight
Bakery mixes	maximum 0.5% by weight

10) use of acid treated starch in sugar confectionery: Acid treated starch may be used in sugar confectionery on GMP basis

## : Anticaking Agents

## 1) Restriction on use of anticaking agents.

No anticaking agents shall be used in any food except where the use of anticaking agents is specifically permitted.

Provided that table salt, onion powder, garlic powder, fruit powder and soup powder may contain the following anticaking agents in quantities not exceeding 2.0 per cent either singly or in combination namely :—

- a. carbonates of calcium and magnesium.
- b. phosphates of calcium and magnesium .
- c. silicates of calcium, magnesium, aluminium or sodium or silicon dioxide;
- d. myristates, palmitates or stearates of aluminium ammonium, calcium, potassium or sodium.

Provided that that calcium potassium or sodium ferrocyanide may be used as crystal modifiers and anti-caking agent in common salt, iodised salt and iron fortified salt in quantity not exceeding 10 mg/kg singly or in combination expressed as ferrocyanide.

## : Antifoaming agents in edible oils and fats.

1) Dimethyl Polysiloxane, food grade, may be used as an antifoaming agent in edible oils and fats for deep fat frying upto a maximum limit of 10 parts per million.

Provided that mono and diglycerides of fatty acids of edible oil may be used as antifoaming agent in jam, jellies and marmalade

Explanation-For the purpose of this Regulation,"Anti foaming agent" means substance which retards deteriorative changes and foaming height during heating.

## : Use of release agents in confectionery.

1) Spreadasil silicon spray (Dimethyl Polysiloxane) if used, as release agent in confectionery, shall not exceed 10 ppm of the finished product.

## : FLAVOURING AGENTS AND RELATED SUBSTANCES

## 1) Flavouring agents:

Flavouring agents include flavour substances, flavour extracts or flavour preparations, which are capable of imparting flavouring properties, namely taste or odour or both to food. Flavouring agents may be of following three types :—

(i) Natural Flavours and Natural Flavouring substances means flavour preparations and single substance respectively, acceptable for human consumption, obtained exclusively by physical processes from vegetables, for human consumption

(ii) Nature-Identical Flavouring Substances means substances chemically isolated from aromatic raw materials or obtained synthetically; they are chemically identical to substances present in natural products intended for human consumption, either processed or not.

(iii) Artificial Flavouring Substances means those substances which have not been identified in natural products intended for human consumption either processed or not;

## 2) Use of anti-oxidants, emulsifying and stabilising agents and food preservatives in flavour.

The flavouring agents may contain permitted anti-oxidants, emulsifying and stabilising agents and food preservatives.

3) Use of Anticaking agent in flavours: Synthetic Amorphous Silicon Dioxide may be used in powder flavouring substances to a maximum level of 2 percent

## 4) Restriction on use of flavouring agents :—

The use of the following flavouring agents are prohibited in any article of food, namely :—

- (i) Coumarin and dihydrocoumarin;



- (ii) Tonkabean (Dipteryl adorat);
  - (iii)  $\beta$ -asarone and cinamyl anthracilate".
  - (iv) Estragole
  - (v) Ethyl Methyl Ketone
  - (vi) Ethyl-3-Phenylglycidate
  - (vii) Eugenyl methyl ether
  - (viii) Methyl  $\beta$  naphthyl Ketone
  - (ix) P.Propylanisole
  - (x) Saffrole and Isosaffrole
  - (xi) Thujone and Isothujone  $\alpha$  &  $\beta$  thujone.
- 5) Solvent in flavour.

Diethylene Glycol and Monoethyl ether shall not be used as solvent in flavours.

: Use of Flavour Enhancers

1) Monosodium Glutamate -

Monosodium Glutamate may be added to foods as per the provisions contained in Appendix A, subject to Good Manufacturing Practices (GMP) level and under proper label declaration as provided in Regulation 2.4.5 (18) of Food Safety and Standards (Packaging and Labeling) Regulations, 2011. It shall not be added to any food for use by infant below twelve months and in the following foods:—

List of foods where Monosodium Glutamate is not allowed

- (i) Milk and Milk Products including Buttermilk.
- (ii) Fermented and renneted milk products (plain) excluding dairy based drink.
- (iii) Pasteurized cream.
- (iv) Sterilised, UHT, whipping or whipped and reduced fat creams.
- (v) Fats and Oils, Foodgrains, Pulses, Oil seeds and grounded/ powdered foodgrains.
- (vi) Butter and concentrated butter.
- (vii) Fresh fruit.
- (viii) Surface treated fruit.
- (ix) Peeled or cut fruit.
- (x) Fresh vegetables, Surface treated fruit, Peeled or cut fruits.
- (xi) Frozen vegetables.
- (xii) Whole, broken or flaked grains, including rice.
- (xiii) Flours of cereals, pulses and starches.
- (xiv) Pastas and noodles (only dried products).
- (xv) Fresh meat, poultry and game, whole pieces or cuts or comminuted.
- (xvi) Fresh fish and fish products, including mollusks, crustaceans and echinoderms.
- (xvii) Processed fish and fish products, including mollusks, crustaceans and echinoderms.
- (xviii) Fresh eggs, Liquid egg products, Frozen egg products.

- (xix) White and semi-white sugar (sucrose and saccharose, fructose, glucose (dextrose), xylose, sugar solutions and syrups, also (partially) inverted sugars, including molasses, treacle and sugar toppings.
- (xx) Other sugars and syrups (e.g. brown sugar and maple syrup).
- (xxi) Honey
- (xxii) Salt
- (xxiii) Herbs, spices and condiments, seasoning (including salt substitutes) except seasoning for Noodles and Pastas, meat tenderizers, onion salt, garlic salt, oriental seasoning mix, topping to sprinkle on rice, fermented soyabean paste, Yeast.
- (xxiv) Infant food and Infant milk substitute including infant formulae and follow-on formulate.
- (xxv) Foods for young children (weaning foods).
- (xxvi) Natural Minerals water and Packaged Drinking water.
- (xxvii) Concentrates (liquid and solid) for fruit juices.
- (xxviii) Canned or bottled (pasteurized) fruit nectar.
- (xxix) Concentrates (liquid and solid) for fruit juices.
- (xxx) Canned or Bottled (pasteurized) fruit nectar.
- (xxxi) Coffee and coffee substitutes, tea, herbal infusions, and other cereal beverages excluding cocoa.
- (xxxii) Wines.
- (xxxiii) Margarine
- (xxxiv) Fat Spread
- (xxxv) Fruits and Vegetables products except those where Monosodium Glutamate is permitted under

Appendix A of these Regulations.

- (xxxvi) Carbonated Water
- (xxxvii) Baking Powder
- (xxxviii) Arrowroot
- (xxxix) Sago
- (xl) Plantation Sugar, Jaggery and Bura. (xli)
- Ice-Candies.
- (xlii) Ice cream and Frozen desserts. (xliii)
- Cocoa Butter
- (xliv) Saccharine
- (xlv) Malted Milk Food and Milk based foods (xlvi)
- Bread
- (xlvii) Vinegar
- (xlviii) Sugar Confectionery, Toffee, Lozenges.
- (xlix) Chocolate
- (l) Pan Masala
- (li) Alcoholic Beverages.

: SEQUESTERING AND BUFFERING AGENTS (ACIDS, BASES, AND SALTS)

- (i) "Sequestering agents" means substances which prevent adverse effect of metals catalysing the oxidative break-down of foods forming chelates; thus inhibiting decolourisation, off taste and rancidity;
- (ii) "Buffering agents" means materials used to counter acidic and alkaline changes during storage or processing steps, thus improving the flavour and increasing the stability of foods;

## 1) Restrictions on the use of sequestering and buffering agents.

Unless otherwise provided in these regulations the sequestering and buffering agents specified in column (1) of the Table below, may be used in the groups of food specified in the corresponding entry in column (2) of the said Table, in concentration not exceeding the proportions specified in the corresponding entry in column (3) of the said Table :

TABLE

Sl. No.	Name of sequestering And buffering agents	Groups of food	Maximum level of use (parts per Million) (ppm) (mg./kg.)
(1)	(2)	(3)	(4)
1.	Acetic Acid	(i) Acidulant, buffering and neutralizing agents in beverages soft drinks (ii) in canned baby foods	Limited by G.M.P. 5,000
2.	Adipic acid	Salt substitute and dietary food	250
3.	Calcium Gluconate	In confections	2,500
4.	Calcium Carbonate	As a neutralizer in number of foods	10,000
5.	Calcium oxide	As a neutralizer in specified dairy product	2,500
6.	Citric acid malic acid	Carbonated beverage and as an acidulant in miscellaneous foods	Limited by G.M.P.
7.	DL Lactic Acid (food grade)	As acidulant in miscellaneous foods	Limited by G.M.P.
8.	L(+) Lactic Acid (food grade)	As acidulant in miscellaneous foods	Limited by GMP
9.	Phosphoric acid	Beverages, soft drinks	600
10.	Polyphosphate containing less than 6 Phosphate moieties	(a) Processed cheese, bread (b) Milk Preparations (c) Cake Mixes (d) Protein foods	40,000 4,000 10,000 4,000
11.	L (+) Tartaric acid	Acidulants	600
12.	Calcium Disodium, Ethylene, Diamine tetra acetate	(i) Emulsions containing refined vegetable oils, eggs, vinegar, salt, sugar and spices; (ii) Salad dressing; (iii) Sandwich spread or fat Spread	50
13.	Fumaric acid	As acidulant in Miscellaneous foods	3000ppm

NOTE :- DL Lactic acid and L(+) Tartaric acid shall not be added to any food meant for children below 12 months (The lactic acid shall also conform to the specification laid down by the Indian Standards Institution.)

: Use of Glycerol Esters of Wood Resins (Ester Gum)—

The maximum limit of glycerol esters of wood resins(ester gum) when used in flavour emulsions, soft drink concentrate and carbonated water shall not exceed 100 ppm. of the final beverage for consumption.

: Use of Sucrose Acetate Isobutyrate - The maximum concentration of Sucrose Acetate Isobutyrate when used in non-alcoholic beverages as a clouding agent shall not exceed 300 ppm;

: Use of Lactulose Syrup in foods:

- 1) Lactulose syrup may be used in special milk based infant food formulations, which is to be taken under medical advice upto a maximum level of 0.5 per cent of final food subject to label declaration.
- 2) Lactulose syrup may be used in bakery products upto 0.5 per cent maximum by weight.

: Use of Dimethyl Dicarbonate:

Dimethyl Dicarbonate may be used in fruit drinks, ready to drink tea beverages, isotonic/sports drinks and flavoured water upto 250 mg/litre subject to a maximum methanol content in final product as 200 mg/litre

: Other substances to be used in Specified limits

The use of substances specified in column (2) in the food mentioned in column (3) of the Table given below shall not exceed the limit specified in column (4) of the said table, namely :—

TABLE

S.No. Substances		Food	Maximum level of use (ppm) mg/kg
1	2	3	4
1.	Ammonium Carbonate	Baked food confections	5,000
2.	Ammonium bicarbonate	-do-	GMP
3.	Baking powder	Baked foods	GMP
4.	Ammonium Phosphate Monobasic	Bread	2,500
5.	Ammonium persulphate	-do-	2,500
6.	Calcium Phosphate	-do-	2,500
7.	Calcium Carbonate	-do-	5,000
8.	Potassium Bromate and /or Potassium Iodate	-do-	50
9.	Ammonium Chloride	-do-	500
10.	Fungal Alpha-amylase	-do-	100
11.	Sodium Stearoyl-2 Lactylate or Calcium Stearoyl-2 Lactylate (Singly or in combination)	-do-	5,000
12.	L-Cystein Mono Hydrochloride	-do-	90
13.	Benzoyl Peroxide	Flour for bakery	40
14.	Potassium bromate	-do-	20
15.	Ascorbic acid	-do-	200
16.	Gluconodelta Lactone	Cured meat or meat products	5,000
17.	Chlorine	Flour for bakery	2,000
18.	Ascorbic acid/Iso Ascorbic acid and its salts singly or in combination	Corned beef, Luncheon Meat, Cooked Ham, Chopped Meat, Canned Chicken, Canned Mutton and Goat Meat.	500
19.	Phosphates (Naturally present and added) expressed as P2O5	Luncheon Meat, Cooked Ham, Chopped Meat.	8000

3.1.18: Carry Over Of Food Additives

For the purpose of the standards specified in chapter 2 of these regulation the "Carry Over" principle applies to the presence of additives such as colours, flavouring agents, anti-oxidants anti-caking agents, emulsifying and stabilising agents, and preservatives in food, as a result of the use of raw material or other ingredients in which these additives were used. The presence of contaminants is not covered by this purpose.

The presence of an additive in food through the application of the carry over principle is admissible in general unless otherwise specifically prohibited in the regulations provided the total additive including the carry over through the raw material or other ingredients does not exceed the maximum amount so permitted.

: Standards of Additives

3.2.1 Food Colours: Standards of various Food Colours with characteristics are specified in the table below: 1

Tartrazine	
Common Name	Tartrazine
Synonyms	FD and C Yellow No.5, E.E.C. Serial No.E 102, L-Gebb 2, C.I. Food Yellow 4.
Colour of the 0.1 Per cent (M/V) solution in distilled water.	
	Yellow
Colour Index Number (1975)	No 19140
Class	Monoazo.
Chemical Name	Trisodium salt of 5-hydroxy-1-p- sulphopheny1-4-(p-sulphophenylazo) pyrazol-3-carboxylicacid.
Empirical formula	$C_{16} H_9 N_4 O_9 S_2 Na_3$
Molecular Weight	534.37
Solubility	Soluble in water. Sparingly soluble in Ethanol.
General Requirements	
The material shall conform to the requirements prescribed in Table below:—	

TABLE

<i>Sl. No. Characteristic</i>	<i>Requirement</i>
1. Total dye content, corrected for Sample dried at $105 \pm 1^\circ\text{C}$ for 2 hours, per cent by mass, Min.	87
2. Loss on drying at $135^\circ\text{C}$ and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max.	13
3. Water insoluble matter, percent by mass, Max.	0.2
4. Combined ether extracts, percent by mass,max	0.2
5. Subsidiary dyes, percent by mass, Max.	1.0
6. Dye intermediates, percent by mass, Max.	0.5
7. Lead, mg/kg, Max.	10
8. Arsenic, mg/kg, Max.	3
9. Heavy metals, mg/kg, Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, and cyanides.;

## 2. SUNSET YELLOW

Common Name	Sunset Yellow
Synonyms	FD and C Yellow No.6, Janus Orange S, C.I. Food Yellow 3, -Orange 2, Janune soil, EEC Serial No.E.10
Colour of the 0.1 Percent (M/V) solution in distilled water	Orange
Colour Index Number (1975)	No 15985
Class	Monoazo
Chemical Name	Disodium salt of 1.(4-sulphophenylazo) 2-naphthol-6-sulphonic acid
Empirical formula	$C_{20}H_6O_5I_4Na_2$
Molecular Weight	452.37
Solubility	Soluble in water. Sparingly soluble in Ethanol
General Requirements	The material shall conform to the requirements prescribed in Table below:—

TABLE

## Requirements for Sunset Yellow, FCF

<i>Sl. No.</i>	<i>Requirements for Sunset Yellow, FCF Characteristic</i>	<i>Requirement</i>
1.	Total dye content, corrected for Sample dried at $105\pm 1^\circ\text{C}$ for 2 hours, per cent by mass, Min.	87
2.	Loss on drying at $135^\circ\text{C}$ , percent by mass and Chlorides and Sulphates expressed as sodium salt, percent by mass, Max	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass. Max.	0.2
5.	Subsidiary dyes, (lower sulphonated dyes including traces of orange II) percent by mass, Max.	3.0
6.	Dye intermediates, percent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg, Max.	3
9.	Heavy metals, mg/kg, Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, and cyanides;

## 3. ERYTHROSINE

Common Name	Erythrosine
Synonyms	FD and C Red No.3 C.I. Food Red 14, LB-Rot-I
Colour of the 0.1 Percent (M/V) solution in distilled water	Red
Colour Index Number (1975)	No 45430
Class	Xanthene
Chemical Name	Disodium or dipotassium salt of 2',4', 5', 7', tetraiodo-fluorescein

Empirical formula	$C_{20}H_6O_5I_4Na_2 \cdot H_2O$
Molecular Weight	879.87 (Disodium Salt)
Solubility	Soluble in water. Sparingly soluble in Ethanol
General Requirements	

The material shall conform to the requirements prescribed in Table below:—

TABLE

<i>Sl. No. Requirements for Sunset Yellow, FCF Characteristic</i>	<i>Requirement</i>
1. Total dye content, corrected for Sample dried at 105 $\pm$ 1 $^{\circ}$ C for 2 hours, per cent by mass, Min.	87
2. Loss on drying at 135 $^{\circ}$ C percent by mass and Chlorides and Sulphates expressed as sodium salt percent by mass, Max.	13
3. Water insoluble matter, percent by mass, Max.	0.2
4. Ether extractable matter,(alkaline), percent by mass. Max.	0.2
5. Inorganic Iodide, percent by mass as sodium iodide, Max.	0.1
6. Subsidiary colouring matters except flourescein, percent by mass, Max.	4
7. Fluorescein, mg/kg, Max.	20
8. Organic compounds other than colouring matter	0.2
(a) Tri-iodoresorcinol, percent by mass, Max.	0.2
(b) 2,(2,4-dihydroxy-3,5-di-iodobenzoyl) benzoic acid, percent by mass, Max.	0.2
9. Lead, mg/kg, Max.	10
10. Arsenic, mg/kg, Max.	3
11. Zinc, mg/kg, Max.	50
12. Heavy metals, mg/kg, Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, and cyanides.

#### 4. INDIGOCARMINE

Common Name	Indigo carmine
Synonyms	Indigotine, FD and C Blue No.2, CI Food Blue 1, EEC Serial No. E132 L-Blue 2
Colour of the 0.1 Percent (M/V) solution in distilled water	Blue
Colour Index Number (1975)	No 73015
Class	Indigoid
Chemical Name	Disodium Salt of indigotine-5, 5'-Disulphonic acid
Empirical formula	$C_{16}H_8N_2O_8S_2Na_2$
Molecular Weight	466.36
Solubility	Soluble in water. Sparingly soluble in Ethanol

#### General Requirements

The material shall conform to the requirements prescribed in Table below:—

TABLE Requirement for Indigo Carmine

<i>Sl. No. Characteristic</i>	<i>Requirement</i>
1. Total dye content, corrected for Sample dried at $105 \pm 1^\circ\text{C}$ for 2 hours, per cent by mass, Min.	85
2. Loss on drying at $135^\circ\text{C}$ , percent by mass and Chlorides and Sulphates expressed as sodium salt, 15 percent by mass, Max.	15
3. Water insoluble matter, percent by mass, Max.	0.2
4. Combined ether extracts, percent by mass, Max.	0.2
5. Subsidiary dyes, percent by mass, Max.	1.0
6. Isatin Sulphonic acid, percent by mass, Max.	0.5
7. Lead, mg/kg, Max.	10
8. Arsenic, mg/kg, Max.	3
9. Heavy metals, mg/kg, Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, and cyanides.

#### 5. $\beta$ -CAROTENE.

$\beta$ -Carotene is obtained as dark violet hexagonal prisms when crystallised from benzene methanol solution; or as red rhombic, almost quadrangular plates, from petroleum ether.

Synonyms	C.I. natural yellow 26
Colour Index Number (1956)	No.75130
Class	Carotenoids
Chemical Name	all trans $\beta$ -Carotene
Empirical formula	$\text{C}_{40} \text{H}_{56}$
Molecular Weight	536.89
Melting Point	$183^\circ\text{C} \pm 1^\circ\text{C}$

Solubility.- Soluble in carbon disulphide, benzene and chloroform, moderately soluble in normal hexane, cyclohexane, ether, petroleum ether and oils; practically insoluble in methanol ; insoluble in water.

Spectrophotometric Requirement.-The wavelengths of absorption maxima of all trans  $\beta$ -Carotene in cyclohexane (0.2 mg per 100 ml. approximately) and in-1cm cell shall be 456 m $\mu$  to 484 m $\mu$  region. There shall be no cis-peak in the 330 m $\mu$  to 355 m $\mu$  region.

A solution of  $\beta$ -carotene in chloroform on addition of antimony trichloride solution shall give a dark blue colour having maximum absorption at a wavelength of 590 m $\mu$ .

Colour Reaction- When 2ml. of concentrated sulphuric acid is added to 2ml. of 0.2 per cent solution of  $\beta$ -Carotene in chloroform, the acid layer shall turn blue.

The material shall have a minimum purity of 96.0 per cent.

Maximum limit of metallic impurities shall be:—

Arsenic (as As)	3 ppm
Lead (as Pb)	10 ppm.
Heavy metal	40 ppm.

And shall also meet the following requirements:—

(i) Subsidiary colouring matter, percent by weight, Max	3
(ii) Sulphated ash, percent of total colouring matters, Max	0.1



**6-CHLOROPHYLL:**

Chlorophyll, the green pigment of plants, is extracted and widely used as a colouring matter for various food items.

Synonyms	C.I. Natural Green 3; Lebensmittel Green No.1
Colour Index Number (1956)	No.75810
Colour Index Number (1924)	No. 12499
Color	Green
Class	Phorbin (dihydrophorbin)
Chemical Name	Chlorophyll a - magnesium complex of 1,3,5,8-tetramethyl 4-ethyl-2-vinyl-9-keto-10 carbomethoxy phorbinphytyl-7-propionate. Chlorophyll b magnesium complex 1,5,8 trimethyl-3-formyl-4-ethyl-2-vinyl-9-keto-10 carbomethoxyphorbinphytyl-7-propionate
Empirical formula	Chlorophyll a - $C_{55}H_{72}O_5N_4Mg$ Chlorophyll b- $C_{55}H_{70}O_6N_4Mg$
Molecular Weight	Chlorophyll a- 893.54 Chlorophyll b - 907.52

General- The material shall be an intensely dark green, aqueous, ethanolic, or oily solution of chlorophyll degradation products. It shall be soluble in ethanol, ether, chloroform and benzene. It shall be insoluble in water.

Identification test- A solution of chlorophyll in ethanol shall be blue with deep red fluorescence.

Brown-phase Reaction-When green ether or petroleum ether solution of chlorophyll is treated with a small quantity of a 10 per cent solution of potassium hydroxide in methanol, the colour shall become brown quickly returning to green.

Note.- This test is applicable only when chlorophyll has not been treated with alkalis. Maximum limits for metallic impurities shall be:—

Arsenic (as As)	3 ppm
Lead (as Pb)	10 ppm
Copper (as Cu)	30 ppm
Zinc (as Zn)	50 ppm

The material shall also conform to the following requirements:—

**CHLOROPHYLL - MAGNESIUM COMPLEX**

<i>Sl. No. Characteristic</i>	<i>Requirement</i>
1 Total combined phaeophytines and their magnesium complexes, percent by weight, max.	10
2 Residual solvents, mg/kg, Max. Acetone, methanol, ethanol, propan-2-ol, hexane	50
Dichloromethane	10

**7 - CAMEL**

Caramel shall be prepared from the food grade carbohydrates or their combinations in the presence of food grade acids, alkalis or salts. It shall be of four types, namely:—

Type-I- Plain Caramel-It shall be prepared by heating carbohydrates with or without acids or alkalis, or their salts. No. ammonium or sulphite compounds are used.

Type-II-Caustic sulphite caramel- It shall be prepared by heating carbohydrates with or without acids or alkalis or their salt in the presence of sulphite compounds; no ammonium compounds are used.

Type - III - Ammonia Process Caramel- It shall be prepared by heating carbohydrates with or without acids or alkalis or their salts in the presence of ammonium compounds; no sulphites are used.

Type-IV- Ammonia Sulphite Caramel- It shall be prepared by heating carbohydrates with or without acids or alkalis or their salts in the presence of both sulphite and ammonium compounds.

**RAW MATERIALS**

1. Carbohydrates - Caramel shall be prepared from the following carbohydrates or their mixtures:—

Sucrose, glucose, fructose, invert sugar, lactose, malt syrup, molasses, starch hydrolysates and fractions thereof and/or polymer thereof.

2. Acids and alkalis- The acids used are sulphuric acid, phosphoric acid, acetic acid, or citric acid and the alkalis used are sodium, potassium or calcium hydroxide or mixture thereof.

Where the ammonium compounds are used, they are one or more of the following:— Ammonium hydroxide

Ammonium Carbonate and Bicarbonate Ammonium

phosphate

Ammonium sulphate

Ammonium sulphite, Bisulphite, Metasulphite

Where the sulphite compounds are used, they are one or more of the following:—

Sulphurous acid, Potassium, Sodium or ammonium Sulphite or Bisulphite.

It shall be a dark brown to black liquid or solid materials having the characteristic odour of burnt sugar and a pleasant, bitter taste. Its solution, when spread in a thin layer on a glass plate should appear homogeneous, transparent and have reddish-brown colour. It shall be miscible with water. It shall be free from any other extraneous colouring matter. It may contain permitted emulsifying and stabilising agents.

It shall conform to the requirements prescribed in Table 1 below. All requirements shall be on solids basis, except metallic impurities.

**TABLE 1 - ROUTINE TEST REQUIREMENTS FOR CAMEL**

<i>Sl. Characteristic No.</i>	<i>Type I Plain</i>	<i>Type II Caustic Sulphite</i>	<i>Type III Ammonia Process</i>	<i>Type IV Sulphite Ammonia</i>
1. Solid content, per cent by mass	62-77	65-72	53-83	40-75
2. Colour intensity,	0.01-0.12	0.06-0.10	0.08-0.36	0.10-0.60
3. Ammonical nitrogen per cent by mass, max.	0.01	0.01	0.4	0.5
4. 4-Methylimidazole	-	-	Max.300 mg/kg & Max.200 mg/kg on equivalent colour basis	Max.1000 mg/kg & Max.250 mg/kg on equivalent colour basis
5. Lead (as Pb), mg/kg, Max.	5	5	5	5
6. Arsenic(as AS)mg/kg.	3	3	3	3

Note: Requirement of ammoniacal nitrogen is based on a product colour having a minimum colour intensity prescribed at Sl. No. (2) proportionately higher values of ammoniacal nitrogen apply for products of higher colour intensity.

**Type Test**

The material shall also conform to the requirements prescribed in Table 2 below. All requirements shall be on solid basis except metallic impurities.

TABLE 2 - TYPE TEST REQUIREMENTS FOR CAMEL

Sl. Characteristic No.	Type I Plain	Type II Caustic Sulphite	Type III Ammonia Process	Type IV Sulphite Ammonia
1. Total sulphur Per cent by mass.	Max.03	1.3-2.5	Max.0.3	1.4-10.0
2. Sulphur dioxide (as SO <sub>2</sub> )	--	Max. 0.2%	--	Max.0.5%
3. Total nitrogen, Per cent by mass	Max.0.1	Max.0.2	1.3-6.8	0.5-7.5
4. Heavy metals mg/kg (Max.)	25	25	25	25
5. 2-Acetyl-4-tetrahydroxybutylimidazole (THI)--		--	Max.40 mg/kg & Max. 25 mg/kg on an equivalent colour basis	—
6. Mercury (as Hg)mg/kg, Max.	0.1	0.1	0.1	0.1
7. Copper (as Cu)mg/kg, Max.	20	20	20	20

The material shall be filled in amber coloured glass or high density polythylene containers or any other well closed suitable containers with as little air space as possible. The containers shall be such as to preclude contamination of the contents with metals or other impurities.

#### 8. ANNATTO

Class	Carotenoids
Code Number	CI(1975)No. 75120', CI (1975) Natural Orange 4 EEC No.E-160 b
Chemical Name	Annatto extract in oil contains several coloured components, the major single one being bixin which may be present in both Cis and Trans forms. Thermal degradation products of bixin may also be present
Solubility	Water soluble annatto contains norbixin, the hydrolysis product of bixin, in the form of sodium or potassium salt, as the major colouring principle. Both cis and trans forms may be present
Chemical Formula	Bixin C <sub>25</sub> H <sub>30</sub> O <sub>4</sub> Norbixin C <sub>24</sub> H <sub>28</sub> O <sub>4</sub>
Molecular Weight	Bixin 394.50 Norbixin 380.48

The material shall be of the following two types:

- (a) Solution in oil for use in butter and other food products, and
- (b) Solution in water for use in cheese and other food products.

#### General

The material shall be derived only from the plant *Bixa orellana* L. and shall not contain any extraneous colouring matter. It shall be processed, packed, stored and distributed under hygienic conditions in licensed premises.

(1) Solution of Annatto Colour in Oil for Use in Butter and Other Food Products:—

Annatto extract in oil, as solution or suspension, is prepared by extraction of the outer coating of seeds with vegetable oils. In the preparation of the solution of annatto colour in oil, only the edible vegetable oils shall be used, either singly or in a mixture.

The solution of annatto colour in oils shall be clear and shall remain so on storage in suitable containers at 15°C except for a slight deposit of stearine or shall be in the form of a suspension. The suspension on dilution with hot oil to bring the bixin content to 0.24 per cent shall be a clear solution.

#### Colour

The colour of solution in amyl acetate at a dilution of 1:1000 (m/v) when measured in a Lovibond Tintometer with a 1 cm Cell Spectrophotometrically/Calorimetrically shall be not less than the following:

Yellow units	5.0
Red units	0.4

or be not less than the colour of the following inorganic solution at a liquid depth of one centimeter which may be employed for matching the stated dilution in a plunger type colorimeter using incident light closely approximating the normal daylight:

Potassium Bichromate	0.320 g
Cobalt ammonium sulphate (CoSO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 6H <sub>2</sub> O)	2.02 g
Sulphuric acid, Sp-gr 1.84	2ml
Distilled water	To make solution to one litre

These reagents shall be of the analytical reagent grade. Although the solution retains its tinctorial value for a considerable time, after prolonged storage, its optical clarity shall be examined before use, to ensure that no alteration has taken place.

Note 1 - Diluted solution of annatto colour in amyl acetate is not stable in colour quality, particularly if exposed to light, and measurement shall be carried out on the diluted solution without undue delay.

(ii) Solution of Annatto Colour in Water for use in Cheese and Other Food Products:

Water soluble annatto colour is prepared by extraction of the outer coating of the seeds with aqueous alkali (sodium or potassium hydroxide). In the preparation of the solution, potable water shall be used. A little quantity (0.5 to 3 per cent) of alkali may be added.

The solution shall be clear and shall remain so on storage in suitable containers at a temperature of 15°C. Colour

The colour of the solution in 0.1 N sodium hydroxide or potassium hydroxide at a dilution of 1:1000 (m/v) measured in a 1-cm shall be the same as that specified in (i) above.

The material shall conform to the requirements prescribed in Table below:

TABLE  
Requirement for Annatto

<i>Sl. No. Characteristic</i>	<i>Requirement</i>
1. Carotenoid	
(a) Annatto extract in oil, expressed as bixin, per cent by mass, Min.	0.24
(b) Water-soluble annatto, expressed as norbixin, percent by mass, Min.	0.24
2. Arsenic, mg/kg, Max.	3
3. Lead, mg/kg, Max.	10
4. Copper, mg/kg, Max.	30
5. Heavy metal, mg/kg, Max.	40

#### 9-RIBOFLAVIN

Riboflavin is a yellow to orange-yellow crystalline powder. Melting point about 280°C with decomposition.

Solubility-slightly soluble in water, more soluble in saline solution and in a 10 per cent (w/v) solution of urea, sparingly soluble in alcohol, practically insoluble in chloroform and in solvent ether and soluble in dilute solution of alkali hydroxides.

Synonyms	Vitamin B2, Lactoflavin and Lactroflavine
Color	Yellow to orange-yellow
Class	Isoalloxazine
Chemical Name	6,7-dimethyl-9-( $\beta$ -D-ribofuryl)-isoalloxazine
Empirical formula	$C_{17}H_{20}N_4O_6$
Molecular Weight	376.38

Identification.-A solution of 1 mg of Riboflavin in 100 ml water is pale greenish yellow in transmitted light, and has an intense yellowish green fluorescence which disappears on the addition of sodium dithionite and mineral acids or alkalis.

Spectrophotometry-Absorption maxima of aqueous solution shall be at 220 to 225, 266, 371 and 444 m $\mu$ .

Specific Rotation-It shall be determined in a 0.5 per cent w/v solution in a mixture of 1.5 ml of 0.1 N alcoholic solution of potassium hydroxide (free from carbonate) and sufficient freshly boiled and cooled water to produce 10 ml. The specific rotation, when calculated with reference to the substance dried to constant weight in the dark at 105°C, shall be, -122°C.

The material shall have minimum purity of 97.0 per cent. Maximum limit of metallic impurities shall be:—

Arsenic (as As)	5 ppm
Lead (as Pb)	20 ppm.

#### 10 - PONCEAU 4R

Common Name	Ponceau 4R
Synonyms	CI Food Red 7, L-Rot No. 4, Coccine Nouvelle, Cochineal Red A; EEC Serial No. E 124
Colour of the 0.1 Percent (m/v) solution distilled water	Red in
Colour Index Number (1975)	No. 16255
Class	Monoazo
Chemical Name	Trisodium salt of 1-(4-sulpho-1-naphthylazo) naphthol-6, 8-disulphonic acid
Empirical formula	$C_{20}H_{11}N_2O_{10}S_3 Na_2$
Molecular Weight	604.5
Solubility	Soluble in water. Sparingly soluble in Ethanol

The material shall conform to the requirements prescribed in Table below:—

TABLE  
Requirements for Ponceau 4R

Sl. No.	Characteristic	Requirement
1.	Total dye content, corrected for Sample dried at 105±1°C for 2 hours, per cent by mass, Min.	85
2.	Loss on drying at 135°C, percent by mass, Max. and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max	18
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass. Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Dye intermediates, per cent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg, Max.	3
9.	Heavy metals, mg/kg, Max.	40

It shall be free from mercury, selenium and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, and cyanides.;

#### 11-CARMOISINE

Common Name	Carmoisine
Synonyms	Azorubine, C.I. Food Red 3, EEC. Serial No.E 122
Colour of the 0.1 Percent (M/V) solution in distilled water	Red
Colour Index Number (1956)	No.14720
Class	Monoazo
Chemical Name	Disodium salt of 2-(4-sulpho-1-naphthylazo)-1-hydroxy-naphthalene-4-sulphonic acid
Empirical formula	$C_{20}H_{12}N_2O_7S_2Na_2$
Molecular Weight	502.44

General Requirements: The material shall be free from mercury, selenium and chromium in any form, aromatic amines, aromatic nitro compounds, aromatic hydrocarbons and cyanides.

Carmoisine shall also comply with requirements prescribed in Table below:—

TABLE

#### Requirements for Carmoisine

<i>Sl. No.</i>	<i>Characteristic</i>	<i>Requirement</i>
1.	Total dye content, corrected for Sample dried at $105 \pm 1^\circ\text{C}$ for 2 hours, per cent by mass, Min.	87
2.	Loss on drying at $135^\circ\text{C}$ , percent by mass, Max. and Chlorides and Sulphates expressed as sodium salt, per cent by mass, Max.	13
3.	Water insoluble matter, percent by mass, Max.	0.2
4.	Combined ether extracts, percent by mass. Max.	0.2
5.	Subsidiary dyes, percent by mass, Max.	1.0
6.	Dye intermediates, per cent by mass, Max.	0.5
7.	Lead, mg/kg, Max.	10
8.	Arsenic, mg/kg, Max.	3
9.	Heavy metals, mg/kg, Max.	40

#### 12-SYNTHETIC FOOD COLOUR - PREPARATION AND MIXTURES.

##### Colour Preparation

A Preparation containing one or more of the permitted synthetic food colours conforming to the prescribed standard alongwith diluents and/or filler materials and meant to be used for imparting colour to food. It may contain permitted preservatives and stabilizers.

The colour preparation would be either in the form of a liquid or powder. Powder preparations shall be reasonably free from lumps and any visible extraneous/foreign matter. Liquid preparations shall be free from sediments.

Only the following diluents or filler materials shall be permitted to be used in colour preparations conforming to the prescribed standards:—

1. Potable water
2. Edible common salt
3. Sugar
4. Dextrose Monohydrate

5. Liquid glucose
6. Sodium sulphate
7. Tartaric acid
8. Glycerine
9. Propylene glycol
10. Acetic acid, dilute
11. Sorbitol
12. Citric acid
13. Sodium carbonate and sodium hydrogen carbonate
14. Lactose
15. Ammonium, sodium and potassium alginates
16. Dextrins
17. Ethyl acetate
18. Starches
19. Diethyl ether
20. Ethanol
21. Glycerol mono, di and tri acetate
22. Edible oils and fats
23. Isopropyl alcohol
24. Bees wax
25. Sodium and ammonium hydroxide
26. Lactic acid
27. Carragenan and gum arabic
28. Gelatin
29. Pectin Colour

#### Mixtures

A mixture of two or more permitted synthetic food colour conforming to prescribed standards without diluents and filler material and meant to be used for imparting colour to food.

It may contain permitted preservatives and stabilizers.

General Requirements-For Colour Preparation & Colour Mixture. The total Synthetic dye content, per cent by mass (m/v) in the colour preparation or in the mixture shall be declared on the label of the container. In powder preparations the declared value shall be on moisture free basis and in case of liquid preparations on as in basis. The total dye content shall be within the tolerance limits given below on the declared value:

- |                        |                    |
|------------------------|--------------------|
| (a) Liquid preparation | +15 per cent       |
|                        | -5 per cent        |
| (b) Solid preparations | $\pm 7.5$ per cent |

The limits of impurities shall be as prescribed in Table below:—

TABLE

#### Limits for Impurities

1. Water insoluble matter, per cent by mass, Max. (on dry basis), Max.	1.0
2. Lead, (as Pb), mg/kg, Max.	10
3. Arsenic, (as As) mg/kg, Max.	3.0
4. Heavy metals, mg/kg, Max.	40

It shall be free from mercury, copper and chromium in any form; aromatic amines, aromatic nitro compounds, aromatic hydrocarbons, polycyclic aromatic hydrocarbon, 2-naphthyl aminobenzidine, amino-4-diphenyl (xenyamine) or their derivatives and cyanides.

The total coal tar dye content percent by mass (m/v) in colour preparation or in mixture shall be declared on the label of the container. In powder preparation, the declared value shall be on moisture free basis and in case of liquid preparation on 'as is basis' and the total dye content shall within  $\pm 15$  percent of the declared value. Colour preparation and colour mixture shall also comply with the following requirements namely: -

<i>Sl. No. Characteristics</i>	<i>Requirements</i>
1 Water insoluble matter, percent by mass	Not more than 1.0
2 Arsenic as (As), parts per million	Not more than 3
3 Lead as (Pb) parts per million	Not more than 10

### 13 BRILLIANT BLUE FCF

Brilliant Blue FCF is hygroscopic in nature and its shade changes with different pH. Suitable precautions should, therefore, be taken in packing the colour.

Colour Brilliant Blue FCF is described below, namely:—

Common Name	Brilliant Blue FCF
Synonyms	C.I. Food Blue FD and C Blue No.1 Blue brilliant FCF
Colour	Blue
Colour Index Number (1975)	No.42900
Class	Triarymethane
Chemical Name	Disodium salt of alpha 4-(N- ethylbeta sulfobenzylamino)-phenyl] alpha [4-(N-ethyl-3-Sulfonatobenzylimino)cyclohexa- 2, 5-dienylidene] toluene-2-sulfonate
Empirical formula	$C_{17}H_{14}N_2Na_2O_9S_2$
Molecular Weight	792.86

General requirements: The material shall conform to the requirement prescribed in Table below, namely:—

TABLE FOR BRILLIANT BLUE FCF

<i>Sl. No. Characteristics</i>	<i>Requirements</i>
(i) Total dye content, corrected for Sample dried at $105 \pm 1^\circ\text{C}$ for 2 hours, percent by Mass, Minimum	85
(ii) Loss on drying at $135^\circ\text{C}$ , and Chlorides and Sulphates expressed as sodium salt, per cent by Mass, Maximum	15
(iii) Water insoluble matter, percent by Mass, Maximum	0.2
(iv) Combined ether extracts, percent by Mass, Maximum	0.2
(v) Subsidiary dyes, percent by Mass, Maximum	3
(vi) Dye intermediates, percent by Mass, Max.	
(a) O, sulpo-benzaldehyde, Maximum	1.5
(b) N-N' ethyl-benzyl-aniline-3-sulphonic acid, Maximum	0.3
(c) Leuco base, percent by Mass, Maximum	5
(vii) Heavy metals, (as Pb), mg/kg, Maximum	40
Lead, mg/kg, Maximum	10
Arsenic, mg/kg, Maximum	3
Chromium, mg/kg, Maximum	50



Note:- The material shall be free from aromatic amines, aromatic nitro compounds, aromatic hydrocarbons and cyanides.

14. Fast Green FCF:

Fast Green FCF is hygroscopic in nature and its shade changes with different pH. Suitable precautions should, therefore, be taken in packing the colour.

Fast Green FCF is described below, namely:—

Common Name	Fast Green FCF
Synonyms	C.I. Food Green 3, FD and C
Green No.3, Vert Solide FCF	
Class	Triary methane
Colour	Green
Colour Index	(1975) No.42053
Chemical Name	Disodium salt of 4-[4-(N-ethyl-p-sulfobenzylamino)-phenyl- (4-hydroxy-2-sulphonumphenyl)-methylene]-(N-ethyl-N-p-sulphobenzyl2,5-cyclohexadienimine).
Empirical Formula	$C_{37}H_{34}O_{10}N_2S_2Na_2$
Molecular Weight	808.86

Requirements The material shall conform to the requirement prescribed in Table below, namely:—

TABLE FOR FAST GREEN FCF

<i>Sl. No.</i>	<i>Characteristic</i>	<i>Requirement</i>
(i)	Total dye content, corrected for Sample dried at $105 \pm 1^\circ\text{C}$ for 2 hours, percent by mass, Minimum	85
(ii)	Loss on drying at $135^\circ\text{C}$ , and, percent by Mass, Maximum and chlorides and Sulphates expressed as sodium salt, percent by mass, Maximum	13
(iii)	Water insoluble matter, percent by Mass, Maximum	0.2
(iv)	Combined ether extracts, percent by Mass. Max	0.2
(v)	Subsidiary dyes, percent by mass, Maximum	1.0
(vi)	Organic compound other than colouring matter uncombined intermediates and products of side reactions	
	(a) Sum of 2-, 3-, 4-formyl benzene sulphonic acid, sodium salts, percent by Mass, Maximum	0.5
	(b) Sum of 3- and 4-[ethyl (4-sulphophenyl) amino methyl benzene sulphonic acid, disodium salts, Percent by Mass, Maximum	0.3
	(c) 2-formyl-5-hydroxybenzene sulphonic acid sodium salt, percent by Mass, Maximum	0.5
	(d) Leuco base, percent by Mass, Maximum	5.0
	(e) Unsulphonated primary aromatic amines (calculated as aniline), percent by Mass, Maximum	0.01
(vii)	Lead, mg/kg, Maximum	10
(viii)	Arsenic, mg/kg, Maximum	3
(ix)	Chromium, mg/kg, Maximum	50
(x)	Mercury, mg/kg, Maximum	Absent
(xi)	Heavy metals, mg/kg, Maximum	40

Note:- The material shall be free from aromatic nitro compounds, aromatic hydrocarbons and cyanides

15. Aluminium Lake of Sunset Yellow FCF Food Yellow No.5 Aluminium Lake is a fine orange yellow water soluble, odourless powder. It is prepared by precipitating Sunset Yellow FCF (conforming to specification under 10.02 of Appendix C of these Regulations) on to a substratum of Alumina.

Chemical Name - Sunset Yellow FCF Aluminium Lake -6, hydroxy-5 (4-sulfophenylazo)-2 Naphthalenesulphonic acid, Aluminium Lake.

Synonym - CI Pigment Yellow, 104, FD and C Yellow No. 6, Aluminium Lake (USA), Food Yellow No. 5 Aluminium Lake (Japan).

(1) Sunset yellow dye used in preparation of lake colour shall conform to specifications laid down under table 2 of these Regulations.

(2) Pure dye content of Aluminium Lake weight by weight	not less than 17 percent
(3) Substratum of Aluminium oxide	not more than 83 percent.
(4) Aluminium content in the lake weight by weight	not more than 44 percent
(5) Sodium chlorides and sulphates (as sodium salts)	not more than 2.0 percent
(6) Inorganic matter (HCl insoluble)	not more than 0.5 percent
(7) Lead (as Pb)	not more than 10 ppm
(8) Arsenic (as As)	not more than 3 ppm

Alumina used in colour shall conform to following, namely:—

(a) Identity: Alumina (dried as aluminium hydroxide) is a white, odourless, tasteless, amorphous powder consisting essentially of Aluminium hydroxide ( $Al_2O_3 \times H_2O$ ).

(b) Specifications: Alumina (dried aluminium hydroxide) shall conform to the following specifications, namely:-

- |                                   |   |
|-----------------------------------|---|
| (i) Acidity or alkalinity         | Agitate 1 gm with 25ml of water and filter. The filtrate shall be neutral to litmus paper |
| (ii) Lead (as Pb)                 | not more than 10 parts per million  |
| (iii) Arsenic (as As)             | not more than 1 parts per million   |
| (iv) Mercury (as Hg)              | not more than 1 parts per million   |
| (v) Aluminium oxide ( $Al_2O_3$ ) | not less than 50 percent  |

Solubility: Lakes are insoluble in most solvents. They are also insoluble in water in pH range from 3.5-9.0 but outside this range and lake substrate tends to dissolve releasing the captive dye.

**APEDA ACT  
(AS ON DATE INCLUDING  
AMMENDMENTS)**

**CHAPTER 1  
Preliminary**

1.

(1) This Act may be called the Agricultural and Processed Food Products Export Development Authority (Amendment Act, 2009).

(2) It shall deemed to have come into force on the 13<sup>th</sup> October 2008

2. In the Agricultural and Processed Food Products Export Development Authority Act, 1985 (hereinafter referred to as the principal Act)

2. In this Act, unless the context otherwise requires,-

- (a) "Authority" means the Agricultural and Processed Food Products Export Development Authority established under section 4;
- (b) "Chairman" means the Chairman of the Authority;
- (c) "export" means taking out of India by land, sea or air;
- (d) "exporter" means a person registered as an exporter of Scheduled products under section 12;
- (e) "member" means a member of the Authority and includes the Chairman;
- (f) "prescribed" means prescribed by rules made under this Act;
- (g) "processing" in relation to Scheduled products includes the process of preservation of such products such as canning, freezing, drying, salting, smoking, peeling or filleting and any other method of processing which the Authority may, by notification in the Official Gazette, specify in this behalf;
- (h) "regulations" means regulations made under this Act;
- (i) "Scheduled products" means any of the agricultural or processed food products included in the Schedule.

3. The Central Government may, having regard to the objects to this Act, and if it considers necessary or expedient so to do, by notification in the Official Gazette, add to, or, as the case may be, omit from, the First Schedule or the Second Schedule any agricultural or processed food product and on such addition, or as the case may be, omission, such product shall be, or shall cease to be, a Scheduled product or Special Products as the case may be".

**CHAPTER II  
AGRICULTURAL AND PROCESSED FOOD PRODUCTS EXPORT  
DEVELOPMENT AUTHORITY**

4.

- (1) With effect from such date as the Central Government may, by notification in the Official Gazette, appoint in this behalf, there shall be established for the purposes of this Act, an Authority to be called the Agricultural and Processed Food Products Export Development Authority.
- (2) The Authority shall be a body corporate by the name aforesaid, having perpetual succession and a common seal, with power to acquire, hold and dispose of property, both movable and immovable, and to contract, and shall by the said name sue and be sued.
- (3) The head office of the Authority shall be at Delhi and the Authority may, with the previous approval of the Central Government, establish offices or agencies at other

places in or outside India.

(4) The Authority shall consist of the following members namely:-

- (a) a Chairman, to be appointed by the Central Government;
- (b) the Agricultural Marketing Adviser to the Government of India, *ex officio*;
- (c) one member to be appointed by the Central Government to represent the Planning Commission;
- (d) three members of Parliament of whom two shall be elected by the House of the People and one by the council of States;
- (e) eight members to be appointed by the Central Government to represent, respectively, the Ministries of the Central Government dealing with-
  - (i) agriculture and rural development;
  - (ii) commerce;
  - (iii) finance;
  - (iv) industry;
  - (v) food;
  - (vi) civil supplies;
  - (vii) civil aviation;
  - (viii) shipping and transport;
- (f) appointment under this clause shall be made on the recommendation of the Government of the State, or as the case may be, the Union territory concerned;
- (g) seven members to be appointed by the Central Government to represent -**
  - (i) the Indian Council of Agricultural Research;
  - (ii) the National Horticulture Board;
  - (iii) the National Agricultural Co-operative Marketing Federation;
  - (iv) the Central Food Technological Research Institute;
  - (v) the Indian Institute of Packaging;
  - (vi) the Spices export Promotion Council; and
  - (vii) the Cashewnut Export Promotion Council;
- (h) twelve members to be appointed by the Central Government to represent,-**
  - (i) fruit and vegetable products industries;
  - (ii) meat, poultry and dairy products industries;
  - (iii) other Scheduled products or Special products industries;
  - (iv) packaging industry;

Provided that the number of members appointed to represent any of the groups of industries specified in sub-clause (i) to (iii) or the industry specified in sub-clause (iv) shall in no case be less than two;
- (i) two members to be appointed by the Central Government from amongst specialists and scientists in the field of agriculture, economics and marketing of Scheduled products.**

(5) The term of office of the members, other than the member referred to in clause (b) of sub-section (4) and the manner of filling vacancies among, and the

procedure to be followed in the discharge of their functions by, the members shall be such as may be prescribed.

- (6) Any officer of the Central Government, not being a member of the Authority, when deputed by that Government in this behalf, shall have the right to attend meetings of the Authority and take part in the proceedings thereof but shall not be entitled to vote.
  - (7) No act or proceeding of the Authority or any committee appointed by it under section 9 shall be invalidated merely by reason of –
    - (a) any vacancy in, or any defect in the constitution of, the Authority or such committee; or
    - (b) any defect in the appointment of a person acting as a member of the Authority or such committee; or
    - (c) any irregularity in the procedure of the Authority or such committee not affecting the merits of the case.
  - (8) The Authority shall meet at such times and places and shall observe such rules of procedure in regard to the transaction of business at its meetings (including the quorum at its meetings) as may be provided by the regulations.
5. (1) The Chairman shall be entitled to such salary and allowances and shall be subject to such conditions of service in respect of leave, pension, provident fund and other matters as may from time to time be fixed by the Central Government.
- (2) The other members of the authority shall receive such allowances as may be fixed by the Central Government.
- (3) A member, other than the *ex officio* member, may resign his office by giving notice thereof in writing to the Central Government and on such resignation being accepted, he shall be deemed to have vacated his office.
6. The Chairman shall be the chief executive of the Authority and shall exercise such powers and perform such duties as may be prescribed.
7. (1) The Central Government shall appoint a Secretary to the Authority who shall exercise such powers and perform such duties as may be prescribed or as may be delegated to him by the Chairman.
- (2) The Secretary shall be entitled to such salary and allowances and shall be subject to such conditions of service in respect of leave, pension, provident fund and such other matters as may, from time to time, be fixed by the Central Government.
- (3) Subject to such control and restrictions as may be prescribed, the Authority may appoint such other officers and employees, as may be necessary, for the efficient performance of its functions and the method of appointment, the scale of pay and allowances and other conditions of service of such other officers and employees of the Authority shall be such as may be provided by the Authority by regulations.
- (4) The Chairman, the Secretary and other officers and employees of the Authority shall not undertake any work unconnected with their duties under this Act except with the permission of the Central Government.
8. (1) On the establishment of the Authority, it shall be lawful for the Central Government to transfer to the Authority, by order, and with effect from such date or dates as may be specified in the order, any officer or other employee holding office as such in the Processed Foods Export Promotion Council (hereafter in this section referred to as the Council) immediately before the date on which the Authority is established:

Provided that the scale of pay of the post in the Authority to which such officer or other employee is transferred shall not be lower than the scale of pay of the post he was holding immediately before such transfer and the other terms and conditions of service (including pension, leave, provident fund and medical benefits) of the post to which he is transferred shall not be less favourable than the terms and conditions of service in relation to the post held by him immediately before such transfer.

- (2) An order under sub-section (1) may be made so as to have retrospective effect from a date not earlier than the date of the commencement of this Act.
- (3) Before any order is issued under sub-section (1), all officers and employees of the Council shall be given an option to express, in such form as may be prescribed, and within such time as may be specified in that behalf by the Central Government, their willingness or otherwise to become employees of the Authority and such option once exercised shall be final:

Provided that no order under sub-section (1) shall be made in relation to any officer or other employee of the Council who has intimated his intension of not becoming an employee of the Authority within the time specified in that behalf:

Provided further that such of the officers and employees of the Council who do not express, within the time specified in that behalf, their intention of becoming the employees of the Authority, shall be dealt with in the same manner and in accordance with the same laws and standing orders as would have applied immediately before the commencement of this Act to the employees of the Council in the event of the reduction of the strength of the officers and employees of the Council.

- (4) An officer or other employees transferred by an order made under sub-section (1) shall, on and from the date of transfer, cease to be an employee of the Council and become an officer or other employee of the Authority with such designation as the Authority may determine and shall, subject to the provisions of the proviso to sub-section (1), be governed by the regulations made by the Authority under this Act in respect of remuneration and other conditions of service (including pension, leave, provident fund and medical benefits) and shall continue to be an officer or other employee of the Authority unless and until his employment is duly terminated by the Authority:

Provided that till such time as the regulations referred to above governing the conditions of service of its officers or other employees are framed by the Authority, the relevant laws and standing orders applicable to the officers and employees of the Council shall continue to be applicable to them.

- (5) If a question arises whether the terms and conditions of service prescribed in the regulations framed by the Authority in respect of any, matter, including remuneration, pension, leave, provident fund and medical benefits, are less favourable than those attached to the post held by an officer or other employee immediately before his transfer to the Authority, the decision of the Central Government in the matter shall be final.

9. (1) The Authority may appoint such committees as may be necessary for the efficient discharge of its duties and performance of its functions under this Act.
- (2) The Authority shall have the power to co-opt as members of any committee appointed under sub-section (1) such number of persons, who are not members

of the Authority, as it may think fit and the persons so co-opted shall have the right to attend the meetings of the committee and take part in its proceedings but shall not have the right to vote.

- (3) The persons co-opted as members of a committee under sub-section (2) shall be entitled to receive such allowances for attending meetings of the committee as may be fixed by the Central Government.
- 10.** (1) It shall be the duty of the Authority to undertake, by such measures as it thinks fit, the development and promotion, under the control of the Central Government, of export of Scheduled products.
- (2) Without prejudice to the generality of the provisions of sub-section (1), the measures referred to therein may provide for -
- (a) the development of industries relating to the Scheduled products for export by way of providing financial assistance or otherwise for undertaking surveys and feasibility studies, participation in the equity capital through joint ventures and other reliefs and subsidy schemes;
  - (b) the registration of persons as exporters of the Scheduled products on payment of such fees as may be prescribed;
  - (c) the fixing of standards and specifications for the Scheduled products for the purposes of export;
  - (d) the carrying out of inspection of meat and meat products in any slaughterhouse, processing, plant, storage premises, conveyances or other places where such products are kept or handled for the purpose of ensuring the quality of such products;
  - (e) the improving of packaging of the Scheduled products;
  - (f) the improving of the marketing of the Scheduled products outside India;
  - (g) the promotion of export oriented production and development of the Scheduled products;
  - (h) the collection of statistics from the owners of factories or establishments engaged in the production, processing, packaging, marketing or export of the Scheduled products or from such other persons as may be prescribed on any matter relating to the Scheduled products; and the publication of the statistics so collected, or of any portions thereof or extracts therefrom;
  - (i) the training in various aspects of the industries connected with the Scheduled products;
  - (j) such other matters as may be prescribed.

**10A.** Without prejudice to any law for the time being in force, it shall be the duty of the Authority to undertake, by such measures as may be prescribed by the Central government for registration and protection of the Intellectual Property rights in respect of Special Products in India or Outside India.

*Explanation.-* For the purpose of this section “Intellectual Property” means any right to intangible property, namely, trade marks, designs, patents, geographical indications or any other similar intangible property, under any law for the time being in force”.

- 11.** (1) If the Central Government is of the opinion that the Authority is unable to perform, or has persistently made default in the performance of, the duty imposed on it by or under this Act or has exceeded or abused its powers, or has willfully or without sufficient cause, failed to comply with the any directions issued by the Central Government under section 20, the Central Government may, by notification in the Official Gazette, supersede the Authority for such period as may be specified in the notification:

Provided that before issuing a notification under this sub-section, the Central Government shall give reasonable time to the Authority to show cause why it should not be superseded and shall consider the explanation and objections, if any, of the Authority.

- (2) Upon the publication of a notification under sub-section (1) superseding the Authority -

(a) all the members of the Authority shall, notwithstanding that their term of office has not expired as from the date of super-session, vacate their offices as such members;

(b) all the powers and duties which may, by or under the provision of this Act, be exercised or performed by or on behalf of the Authority shall, during the period of super-session, be exercised and performed by such person or persons as the Central Government may direct;

(c) all property vested in the Authority shall, during the period of super-session, vest in the Central Government.

- (3) On the expiration of the period of supersession specified in the notification issued under sub-section (1), the Central Government may -

(a) extend the period of supersession for such further period as it may consider necessary; or

(b) reconstitute the Authority in the manner provided in section 4.

### **CHAPTER III REGISTRATION**

- 12.** (1) Every person exporting any one or more of the Scheduled products shall, before the expiration of one month from the date on which he undertakes such export or before the expiration of three months from the date of coming into force of this section, whichever is later, apply to Authority to be registered as an exporter of the Scheduled product or Scheduled products:

Provided that the Authority may, for sufficient reason, extend the time-limit for registration by such period as it thinks fit.

(2) Registration once made shall continue to be in force until it is cancelled by the Authority.

- 13.** The form of application for registration under section 12 and for the cancellation of such registration, the fee payable on such applications, the particulars to be included in such application, the procedure to be followed in granting and cancelling registration and the registers to be kept by the Authority shall be such as may be prescribed.

- 14.** (1) Every exporter, referred to in sub-section (1) of section 12, shall furnish to the Authority at the prescribed time and in the prescribed manner such returns as may be prescribed.

(2) The Authority may authorize a member or any of its officers to inspect any processing plant or any other establishment of the exporter at any time to verify the accuracy of any return made under this section.



**CHAPTER IV  
FINANCE, ACCOUNTS  
AND AUDIT**

- 15.** The Central government may, after due appropriation made by Parliament by law in this behalf, pay to the Authority by way of grants or loans such sums of money as the Central Government may think fit for being utilized for the purposes of this Act.
- 16.** (1) There shall be formed a Fund to be called the Agricultural and Processed Food Products Export Development Fund and there shall be credited thereto
- (a) any sums of money which the Central Government may, after due appropriation made by Parliament by law in this behalf provide from and out of the proceeds of the cess credited under section 4 of the Agricultural and Processed Food Products Export Cess Act, 1985, after deducting therefrom the expenses of collection of the cess and the amount, if any, refunded;
  - (b) all fees levied and collected in respect of registration and other matters under this Act or the rules made thereunder;
  - (c) any grants or loans that may be made by the Central Government for the purposes of this Act under section 15; and
  - (d) any grants or loans that may be made by any State Government, voluntary organization or other institution for the purposes of this Act:
- Provided that no such grant, loan or donation shall be credited to the Fund except with the prior approval of the Central Government.
- (2) The Fund shall be applied for -
- (a) meeting the cost of the measures referred to in section 10
  - (b) meeting the salaries, allowances and other remuneration of the members, officers and other employees, as the case may be, of the Authority;
  - (c) meeting the other administrative expenses of the Authority and any other expenses authorized by or under this Act; and
  - (d) repayment of any loan.
- 17.** Subject to such rules as may be made in this behalf, the Authority shall have power to borrow on the security of the Agricultural and Processed Food Products Export Development Fund or any other asset for carrying out the purposes of this Act.
- 18.** (1) The Authority shall maintain proper accounts and other relevant records and prepare an annual statement of accounts, in such form as may be prescribed by the Central Government in consultation with the Comptroller and Auditor-General of India.
- (2) The accounts of the Authority shall be audited by the Comptroller and Auditor-General of India at such intervals as may be specified by him and any expenditure incurred in connection with such audit shall be payable by the authority to the Comptroller and Auditor-General.
- (3) The Comptroller and Auditor-General of India and any person appointed by him in connection with the audit of the accounts of the Authority shall have the same rights and privileges and the authority in connection with such audit as the Comptroller and Auditor-General generally has in connection with the audit of Government accounts and, in particular, shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect any of the offices of the Authority.
- (4) The accounts of the Authority as certified by the Comptroller and Auditor-General of India or any other person appointed by him in this behalf together with the audit

report thereon shall be forwarded annually to the Central Government and that Government shall cause the same to be laid before each House of Parliament.

**CHAPTER V**  
**CONTROL BY THE CENTRAL**  
**GOVERNMENT**

- 19.** (1) The Central Government may, by order published in the Official Gazette, make provision for prohibiting, restricting or otherwise controlling the import or export of the Scheduled products, either generally or in specified classes of cases.
- (2) All Scheduled products to which any order under sub-section (1) applies, shall be deemed to be goods of which the export has been prohibited under section 11 of the Customs Act, 1962, and all the provisions of that Act shall have effect accordingly.
- (3) If any person contravenes any order made under sub-section (1), he shall, without prejudice to any confiscation or penalty to which he may be liable under the provisions of the Customs Act, 1962 as applied by sub-section (2), be punishable with imprisonment for a term which may extend to one year, or with fine, or with both.
- 20.** The Authority shall carry out such directions as may be issued to it from time to time by the Central Government for the efficient administration of this Act.
- 21.** (1) The Authority shall furnish to the Central Government at such time and in such form and manner as may be prescribed or as the central Government may direct, such returns and statements and such particulars in regard to any proposed or existing programme for the promotion and development of the export of the Scheduled products, as the Central Government may, from time to time, require.
- (2) Without prejudice to the provisions of sub-section (1), the Authority shall, as soon as possible, after the end of each financial year, submit to the Central Government a report in such form and before such date, as may be prescribed, giving a true and full account of its activities, policy and programmes during the previous financial year.
- (3) A copy of the report received under sub-section (2) shall be laid, as soon as may be, after it is received, before each House of Parliament.

**CHAPTER VI**  
**MISCELLANEOUS**

- 22.** Any person who, being required by or under this Act to furnish any return, fails to furnish such return or furnishes a return containing any particular which is false and which he knows to be false or does not believe to be true shall be punishable with fine which may extend to five hundred rupees.
- 23. Any person who -**
- (a) obstructs any member authorized by the Chairman in writing or any officer or other employees of the Authority authorized in this behalf by the Central Government or by the Authority, in the exercise of any power conferred, or in the discharge of any duty imposed on him by or under this Act; or
- (b) having control over or custody of any account book or other record fails to produce such book or record when required to do so by or under this Act,
- shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

- 24.** Whoever contravenes or attempts to contravene or abets the contravention of the provisions of this Act or of any rules made thereunder other than the provisions, the punishment for the contravention where of has been provided for in sections 19, 22 and 23 shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both and in the case of a continuing contravention with an additional fine which may extend to fifty rupees for every day during which such contravention continues after conviction for the first such contravention.
- 25.** (1) Where an offence under this Act has been committed by a company, Offences by every person who at the time the offence was committed was in charge of, companies and was responsible to, the company for the conduct of the business of the company as well as the company shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

*Explanation* – For the purposes of this section –

- (a) “Company” means any body corporate and includes a firm or other association of individuals; and
- (b) “Director”, in relation to a firm, means a partner in the firm.
- 26.** No court inferior to that of a Metropolitan Magistrate or a Magistrate of the first class shall try any offence punishable under this Act.
- 27.** No prosecution for any offence punishable under this Act shall be instituted except with the previous sanction of the Central Government.
- 28.** No suit, prosecution or other legal proceedings shall lie against the central Government, or the authority or any committee appointed by it, or any member of the authority or such committee, or any officer or other employee of the central Government or of the authority or any other person authorized by the Central Government or the authority, for anything which is in good faith done or intended to be done under this Act or the rules made thereunder.
- 29.** The Central Government may, by order published in the Official Gazette, direct that any power exercisable by it under this Act (not being the power to make rules under section 32) may also be exercised in such cases and subject to such conditions, if any, as may be specified in the order, by such officer or authority as may be specified therein.
- 30.** (1) If the Central Government is satisfied that circumstances have arisen rendering it necessary that certain of the restrictions imposed by this Act should cease to be imposed or if it considers necessary or expedient so to do in the public interest, it may, by notification in the Official Gazette, suspend or relax to such extent and either indefinitely or for such period as may be specified in the notification, the operation of all or any of the provisions of this Act.
- (2) Where the operation of any provision of this Act has under sub-section (1) been suspended or relaxed indefinitely, such suspension or relaxation may, at any time while this Act remains in force, be removed by the central Government by notification in the Official Gazette.

31. The provisions of this Act shall be in addition to and not in derogation of the provisions of any other law for the time being in force.
32. (1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the purposes of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-
- (a) the term of office of the members [other than the member referred to in clause (b) of sub-section (4) of section 4], the manner of filling vacancies among, and the procedure to be followed in the discharge of their functions by the members, under sub-section (5) of section 4;
  - (b) the powers which may be exercised and the duties which may be performed by the Chairman as the chief executive of the authority under section 6;
  - (c) the powers which may be exercised and the duties which shall be performed by the Secretary of the Authority under sub-section (1) of section 7;
  - (d) the control and restrictions subject to which other officers and employees may be appointed by the Authority under sub-section (3) of section 7;
  - (e) the form in which and the time within which option may be given by the officers and employees of the Processed Foods Export Promotion Council under sub-section (3) of section 8;
  - (f) payment of fees for the registration of exporters of Scheduled products under clause (b) of sub-section (2) of section 10;
  - (g) persons other than the owners from whom the collection of statistics in respect of any matter relating to Scheduled products may be made under clause (h) of sub-section (2) of section 10;
  - (h) the additional matters in respect of which the Authority may undertake measures in the discharge of its functions under clause (j) of sub-section (2) of section 10;
    - (h {a}) the measures for registration and protection of intellectual property rights under section 10A;”
  - (i) the form and the manner of making application for registration and for cancellation of registration, the fee payable on such application and the procedure to be followed in granting and cancelling registration and the conditions governing such registration, under section 13;
  - (j) the time at which and the manner in which an exporter shall furnish returns to the Authority under sub-section (1) of section 14;
  - (k) the form in which the accounts of the Authority shall be maintained under sub-section (1) of section 18;
  - (l) the form and manner in which and the time at which the Authority shall furnish returns and statements to the Central Government under sub-section (1) of section 21;
  - (m) the form in which and the date before which the Authority shall furnish to the Central Government the report of its activities and programme under sub-section(2) of section 21
  - (n) any other matter which is to be or may be prescribed under this Act.

33. (1) The authority may, with the previous sanction of the central Government, by notification in the Official Gazette, make regulations not inconsistent with the provisions of this Act and the rules made thereunder, to provide for all matters for which provision is necessary or expedient for the purposes of giving effect to the provisions of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing powers, such regulations may provide for all or any of the following matters, namely :-
- (a) the times and places at which meetings of the authority or any committee thereof, shall be held and the procedure to be followed thereat and the number of members which shall form a quorum at a meeting under sub-section (8) of section 4;
  - (b) the method of appointment, the conditions of service and the scale of pay and allowances of any of the officers and other employees of the Authority under sub-section (3) of section 7;
  - (c) generally for the efficient conduct of the affairs of the Authority.
- (3) The Central Government may, by notification in the Official Gazette, modify or rescind any regulations sanctioned by it and, the regulation so modified or rescinded shall have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or rescission shall be without prejudice to the validity of anything done under the regulation before its modification or rescission.
34. Every rule and every regulation made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive session aforesaid, both Houses agree in making any modification in the rule or regulation, as the case may be, or both Houses agree that the rule or regulation, as the case may be, should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of any thing previously done under that rule or regulation.
35. All things done, or, omitted to be done, and all actions or measures taken, or, not taken, during the period beginning on or after the 13<sup>th</sup> day of October, 2008 and ending immediately before the date of commencement of the Agricultural and Processed Food products Export Development Authority (amendment) Act 2009, shall, in so far as they are in conformity with the provisions of this Act, as amended by the Agricultural and Processed Food products Export Development Authority (amendment) Act 2009, be deemed to have been done, or, omitted to be done, or taken, or, not taken, under the provisions of this Act, as amended by the Agricultural and Processed Food products Export Development Authority (amendment) Act 2009, as if such provisions were in force at the time such things were done or omitted to be done and actions or measures taken or not **taken during the said period.**"

-----

**FIRST SCHEDULE**

[*See section 2(i)*]

1. Fruits, vegetables and their products,
2. Meat and meat products,
3. Poultry and poultry products,
4. Dairy products,
5. Confectionary, biscuits and bakery products,
6. Honey, jaggery and sugar products,
7. Cocoa and its products, chocolates of all kinds,
8. Alcoholic and non-alcoholic beverages,
9. Cereals and Cereal products,
10. Groundnuts, peanuts and walnuts,
11. Pickles, chutneys and papads,
12. Guar Gum,
13. Floriculture and floriculture products,
14. Herbal and medicinal plants.

**THE SECOND SCHEDULE**

[*See section 2(j)*]

“Basmati Rice”

## ENVIRONMENT PROTECTION ACT 1986

- 6. Rules to regulate environmental pollution.**—(1) The Central Government may, by notification in the Official Gazette, make rules in respect of all or any of the matters referred to in section 3. (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:— (a) the standards of quality of air, water or soil for various areas and purposes; (b) the maximum allowable limits of concentration of various environmental pollutants (including noise) for different areas; (c) the procedures and safeguards for the handling of hazardous substances; (d) the prohibition and restrictions on the handling of hazardous substances in different areas; (e) the prohibition and restrictions on the location of industries and the carrying on of processes and operations in different areas; (f) the procedures and safeguards for the prevention of accidents which may cause environmental pollution and for providing for remedial measures for such accidents.
- 25. Power to make rules.**—(1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the purposes of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—
- (a) the standards in excess of which environmental pollutants shall not be discharged or emitted under section 7;
  - (b) the procedure in accordance with and the safeguards in compliance with which hazardous substances shall be handled or cause to be handled under section 8;
  - (c) the authorities or agencies to which intimation of the fact of occurrence or apprehension of occurrence of the discharge of any environmental pollutant in excess of the prescribed standards shall be given and to whom all assistance shall be bound to be rendered under sub-section (1) of section 9
  - (d) the manner in which samples of air, water, soil or other substance for the purpose of analysis shall be taken under sub-section (1) of section 11;
  - (e) the form in which notice of intention to have a sample analysed shall be served under clause (a) of sub-section (3) of section 11;
  - (f) the functions of the environmental laboratories, the procedure for the submission to such laboratories of samples of air, water, soil and other substances for analysis or test; the form of laboratory report; the fees payable for such report and other matters to enable such laboratories to carry out their functions under sub-section (2) of section 12;
  - (g) the qualifications of Government Analyst appointed or recognised for the purpose of analysis of samples of air, water, soil or other substances under section 13;
  - (h) the manner in which notice of the offence and of the intention to make a complaint to the Central Government shall be given under clause (b) of section 19;
  - (i) the authority or officer to whom any reports, returns, statistics accounts and other information shall be furnished under section 20;
  - (j) any other matter which is required to be, or may be, prescribed.

Sr. No.	Industry	Parameter	Standards
1	2	3	4
	Glass Industries (for all categories)	<b>EFFLUENTS:</b>	
		pH	6.5 – 8.5
		Total Suspended Solids	100 mg/l
		Oil & Grease	10 mg/l
49.	<b>LIME KILN</b>	Stack Height	
	Capacity :		
	Upto 5 T/day	Stack Height	A hood should be provided with a stack of 30 meter height from ground level (including kiln height).
	Above 5T/day	Stack height	$H=14(Q)^{0.3}$ where Q is emission rate of SO <sub>2</sub> in kg/hr and H=Stack Height in meters.
	More than 5T/day and up to 40 T/Day	Particulate matter	500 mg/Nm <sup>3</sup>
	Above 40T/day	Particulate matter	150 mg/Nm <sup>3</sup>
50.	<b>*SLAUGHTER HOUSE, MEAT &amp; SEA FOOD INDUSTRY</b>	<b>EFFLUENTS</b>	Concentration in mg/l
	Category		
	A.Slaughter House		
	(a) Above 70 TLWK/day	BOD <sup>1</sup> [3 days at 27°C]	100
		Suspended Solids	100
		Oil and Grease	10
	(b) 70 TLWK/day below	BOD <sup>1</sup> [3 days at 27°C]	500
	B.Meat Processing		
	(a) Frozen Meat	BOD <sup>1</sup> [3 days at 27°C]	30
		Suspended Solids	50
		Oil & Grease	10
	(b) Raw Meat from own Slaughter House.	BOD <sup>1</sup> [3 days at 27°C]	30
		Suspended Solids	50
		Oil & Grease	10
	(c) Raw Meat from other sources		Disposal via Screen and Septic Tank.
	C.Sea Food Industry	BOD <sup>1</sup> [3 days at 27°C]	30
		Suspended Solids	50
		Oil and Grease	10

\* The emission standards from Boiler House shall conform to the standards already prescribed under E(P) Act, 1986 vide notification No.G.S.R.742(E), dated 30.8.90.

<sup>1</sup> Substituted by Rule 2 of the Environment (Protection) Amendment Rules, 1996 notified by G.S.R.176(E), dated 2.4.1996 may be read as BOD (3 days at 27°C) wherever BOD 5 days 20°C occurred.





### **Draft Notification for Slaughterhouse Units**

The revised draft notification for Slaughterhouse / Meat processing units was forwarded by Central Pollution Control Board (CPCB) in May, 2015. The draft standards were presented before the Hon'ble MEF&CC in June, 2015. The draft notification was placed on the website of MoEF&CC for 30 days in October, 2015 for public consultation. The comments received on the draft notification were forwarded to CPCB for compilation and assessment and modify the draft notification in line with the comments received. CPCB had submitted the comments and draft notification in December, 2015. The draft notification was placed before the 10<sup>th</sup> Expert Committee meeting on 05.04.2016 for discussion and approval. The draft notification was approved by Hon'ble MEFCC on 28.08.2016. After approval, the file was sent for legal vetting to Ministry of Law & Justice. The notification has been legally vetted by MoL&J and the corrected version is again sent for Hindi version to Official Language Wing, MoL&J.

After receipt, the English and Hindi versions would be sent for notification to Government of India Press, Mayapuri.

**[To be published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i)]**  
**GOVERNMENT OF INDIA**  
**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**NOTIFICATION**  
**New Delhi, the....., 2016**

G.S.R.------(E).- In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:-

1. Short title and Commencement.-

- (1) These rules may be called the Environment (Protection) Sixth Amendment Rules, 2016.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule-I, for serial number 50 and the entries relating thereto, the following serial number and entries shall be substituted, namely:-

**STANDARDS FOR DISCHARGE OF EFFLUENTS FROM SLAUGHTERHOUSES,  
MEAT PROCESSING UNITS AND SEA FOOD INDUSTRY**

S.No.	Industry	Parameter	Standard
1	2	3	4
"50	A. Slaughterhouses or Meat Processing Units or Both*	Effluents	Maximum Concentration values are in mg/l except for pH
		pH	6.5 to 8.5
		Bio-chemical Oxygen Demand (BOD) [3 days at 27°C]	30
		Chemical Oxygen Demand (COD)	250
		Suspended Solids	50
		Oil and Grease	10
	B. Sea Food Industry*	Bio-chemical Oxygen Demand (BOD) [3 days at 27°C]	30
		Suspended Solids	50
		Oil and Grease	10

\*The emission standards from Boiler House of Slaughterhouses or Meat Processing Units or both and Sea Food Industry shall conform to the standards prescribed vide notification No. G.S.R. 742 (E), dated 30.08.1990 as amended from time to time under the Environment (Protection) Act, 1986.

**Note:**

- (i) For Slaughterhouses operating in local bodies/ municipalities, where the treated effluent is discharged into municipal sewers leading to full-fledged Sewage Treatment Plant, the BOD may be relaxed to 100mg/l.
- (ii) All Slaughterhouses/ meat processing units shall ensure safe and proper disposal of solid waste {Type I (Vegetable matter such as rumen, stomach and intestinal contents, dung, agriculture residues etc) and Type II (Animal matter such as inedible offal, tissues, meat trimmings, waste and condemned meat, bones etc.)} through suitable technology approved by SPCBs/PCCs. ”.

(Dr. Rashid Hasan)  
Adviser

Note- The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* number S.O. 844 (E), dated the 19<sup>th</sup> November, 1986 and subsequently amended *vide* the following notifications, namely:-

S.O. 433 (E), dated the 18<sup>th</sup> April 1987; G.S.R. 176(E), dated the 2<sup>nd</sup> April, 1996; G.S.R. 97 (E), dated the 18<sup>th</sup> February, 2009; G.S.R. 149 (E), dated the 4<sup>th</sup> March , 2009; G.S.R. 543(E), dated the 22<sup>nd</sup> July,2009; G.S.R. 739 (E), dated the 9<sup>th</sup> September, 2010; G.S.R. 809(E), dated, the 4<sup>th</sup> October, 2010, G.S.R. 215 (E), dated the 15<sup>th</sup> March, 2011; G.S.R. 221(E), dated the 18<sup>th</sup> March, 2011; G.S.R. 354 (E), dated the 2<sup>nd</sup> May, 2011; G.S.R. 424 (E), dated the 1<sup>st</sup> June, 2011; G.S.R. 446 (E), dated the 13<sup>th</sup> June, 2011; G.S.R. 152 (E), dated the 16<sup>th</sup> March, 2012; G.S.R. 266(E), dated the 30<sup>th</sup> March, 2012; and G.S.R. 277 (E), dated the 31<sup>st</sup> March, 2012; and G.S.R. 820(E), dated the 9<sup>th</sup> November, 2012; G.S.R. 176 (E), dated the 18<sup>th</sup> March, 2013; G.S.R. 535(E), dated the 7<sup>th</sup> August, 2013; G.S.R. 771(E), dated the 11<sup>th</sup> December, 2013; G.S.R. 2(E), dated the 2<sup>nd</sup> January, 2014; G.S.R. 229 (E), dated the 28<sup>th</sup> March, 2014; G.S.R. 232(E), dated the 31<sup>st</sup> March, 2014; G.S.R. 325(E), dated the 07<sup>th</sup> May, 2014, G.S.R. 612, (E), dated the 25<sup>th</sup> August 2014; G.S.R. 789(E), dated the 11<sup>th</sup> November 2014; S.O. 3305(E), dated the 7<sup>th</sup> December, 2015; S.O.4(E), dated 1<sup>st</sup> January 2016; G.S.R. 35(E), dated 14<sup>th</sup> January 2016, G.S.R. 281 (E), dated 7<sup>th</sup> March, 2016G.S.R. 496(E), dated 09<sup>th</sup> May, 2016 and lastly amended *vide* notification G.S.R.497(E), dated 10<sup>th</sup> May, 2016.

**Central Government Act**  
**The Water (Prevention and Control of Pollution) Act, 1974**  
**THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974**

1. Short title, application and commencement.—

(1) This Act may be called the Water (Prevention and Control of Pollution) Act, 1974.

(2) It applies in the first instance to the whole of the States of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and the Union territories; and it shall apply to such other State which adopts this Act by resolution passed in that behalf under clause (1) of article 252 of the Constitution.

(3) It shall come into force, at once in the States of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and in the Union territories, and in any other State which adopts this Act under clause (1) of article 252 of the Constitution on the date of such adoption and any reference in this Act to the commencement of this Act shall, in relation to any State or Union territory, mean the date on which this Act comes into force in such State or Union territory.

2. Definitions.— In this Act, unless the context otherwise requires,—

(a) “Board” means the Central Board or a State Board; 1[(b) “Central Board” means the Central Pollution Control Board constituted under section 3;]

(c) “member” means a member of a Board and includes the chairman thereof;

2[(d) “occupier”, in relation to any factory or premises, means the person who has control over the affairs of the factory or the premises, and includes, in relation to any substance, the person in possession of the substance;]

3[(dd) “outlet” includes any conduit pipe or channel, open or closed, carrying sewage or trade effluent or any other holding arrangement which causes, or is likely to cause, pollution;]

(e) “pollution” means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms;

(f) “prescribed” means prescribed by rules made under this Act by the Central Government or, as the case may be, the State Government;

(g) “sewage effluent” means effluent from any sewerage system or sewage disposal works and includes sullage from open drains; 3[(gg) “sewer” means any conduit pipe or channel, open or closed, carrying sewage or trade effluent;] 4[(h) “State Board” means a State Pollution Control Board constituted under section 4;]

(i) “State Government” in relation to a Union territory means the Administrator thereof appointed under article 239 of the Constitution;

(j) “stream” includes—

(i) river;

(ii) water course (whether flowing or for the time being dry);

(iii) inland water (whether natural or artificial);

(iv) sub-terranean waters;

(v) sea or tidal waters to such extent or, as the case may be, to such point as the State Government may, by notification in the Official Gazette, specify in this behalf;

(k) “trade effluent” includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any 5[industry, operation or process, or treatment and disposal system], other than domestic sewage.

### 3. Constitution of Central Board.—

(1) The Central Government shall, with effect from such date (being a date not later than six months of the commencement of this Act in the States of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and in the Union territories) as it may, by notification in the Official Gazette, appoint, constitute a Central Board to be called the 1[Central Pollution Control Board] to exercise the powers conferred on and perform the functions assigned to that Board under this Act.

(2) The Central Board shall consist of the following members, namely:—

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of 2[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) 3[such number of officials, not exceeding five,] to be nominated by the Central Government to represent that Government;

(c) such number of persons, not exceeding five to be nominated by the Central Government, from amongst the members of the State Boards, of whom not exceeding two shall be from those referred to in clause (c) of sub-section (2) of section 4;

(d) 4[such number of non-officials, not exceeding three,] to be nominated by the Central Government, to represent the interests of agriculture, fishery or industry or trade or any other interest which, in the opinion of the Central Government, ought to be represented;

(e) two persons to represent the companies or corporations owned, controlled or managed by the Central Government, to be nominated by that Government; 5[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(3) The Central Board shall be a body corporate with the name aforesaid having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and to contract, and may, by the aforesaid name, sue or be sued.

### 4. Constitution of State Boards.—

(1) The State Government shall, with effect from such date 1[\*\*\*] as it may, by notification in the Official Gazette, appoint, constitute a 2[State Pollution Control Board], under such name as may be specified in the notification, to exercise the powers conferred on and perform the functions assigned to that Board under this Act.

(2) A State Board shall consist of the following members, namely:—

(a) a 3[\*\*\*] chairman, being a person having special knowledge or practical experience in respect of 4[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the State Government: 5[Provided that the chairman may be either whole-time or part-time as the State Government may think fit;]

(b) 6[such number of officials, not exceeding five,] to be nominated by the State Government to represent that Government;

(c) 7[such number of persons, not exceeding five,] to be nominated by the State Government from amongst the members of the local authorities functioning within the State;

(d) 8[such number of non-officials, not exceeding three,] to be nominated by the State Government to represent the interests of agriculture, fishery or industry or trade or any other interest which, in the opinion of the State Government, ought to be represented;

(e) two persons to represent the companies or corporations owned, controlled or managed by the State Government, to be nominated by that Government; 9[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the State Government.]

(3) Every State Board shall be a body corporate with the name specified by the State Government in the notification under sub-section (1), having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and to contract, and may, by the said name, sue or be sued.

(4) Notwithstanding anything contained in this section, no State Board shall be constituted for a Union territory and in relation to a Union territory, the Central Board shall exercise the powers and perform the functions of a State Board for that Union territory: Provided that in relation to any Union territory the Central Board may delegate all or any of its powers and functions under this sub-section to such person or body of persons as the Central Government may specify.

5. Terms and conditions of service of members.—

(1) Save as otherwise provided by or under this Act, a member of a Board, other than a member-secretary, shall hold office for a term of three years from the date of his nomination: Provided that a member shall, notwithstanding the expiration of his term, continue to hold office until his successor enters upon his office.

1[(2) The term of office of a member of a Board nominated under clause (b) or clause (e) of sub-section (2) of section 3 or clause (b) or clause (e) of sub-section (2) of section 4 shall come to an end as soon as he ceases to hold the office under the Central Government or the State Government or, as the case may be, the company or corporation owned, controlled or managed by the Central Government or the State Government, by virtue of which he was nominated.]

(3) The Central Government or, as the case may be, the State Government may, if it thinks fit, remove any member of a Board before the expiry of his term of office, after giving him a reasonable opportunity of showing cause against the same.

(4) A member of a Board, other than the member-secretary, may at any time resign his office by writing under his hand addressed—

(a) in the case of the chairman, to the Central Government or, as the case may be, the State Government; and

(b) in any other case, to the chairman of the Board, and the seat of the chairman or such other member shall thereupon become vacant.

(5) A member of a Board, other than the member-secretary, shall be deemed to have vacated his seat if he is absent without reason, sufficient in the opinion of the Board, from three consecutive meetings of the Board, 2[or where he is nominated under clause (c) or clause (e) of sub-section (2) of section 3 or under clause (c) or clause (e) of sub-section (2) of section 4, if he ceases to be a member of the State Board or of the local authority or, as the case may be, of the company or corporation owned, controlled or managed by the Central Government or the State Government and such vacation of seat shall, in either case, take effect from such date as the Central Government or, as the case may be, the State Government may, by notification in the Official Gazette, specify.]

(6) A casual vacancy in a Board shall be filled by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term for which the member in whose place he was nominated.

(7) A member of a Board 3[shall be eligible for re-nomination.]

(8) The other terms and conditions of service of a member of a Board, other than the chairman and member-secretary, shall be such as may be prescribed.

(9) The other terms and conditions of service of the chairman shall be such as may be prescribed.

#### 6. Disqualifications.—

(1) No person shall be a member of Board, who—

(a) is, or at any time has been adjudged insolvent or has suspended payment of his debts or has compounded with his creditors, or

(b) is of unsound mind and stands so declared by a competent court, or

(c) is, or has been, convicted of an offence which, in the opinion of the Central Government or, as the case may be, of the State Government, involves moral turpitude, or

(d) is, or at any time has been, convicted of an offence under this Act, or

(e) has directly or indirectly by himself or by any partner, any share or interest in any firm or company carrying on the business of manufacture, sale or hire of machinery, plant, equipment, apparatus or fittings for the treatment of a sewage or trade effluents, or

(f) is a director or a secretary, manager or other salaried officer or employee of any company or firm having any contract with the Board, or with the Government constituting the Board, or with a local authority in the State, or with a company or corporation owned, controlled or managed by the Government, for the carrying out of sewerage schemes or for the installation of plants for the treatment of sewage or trade effluents, or

(g) has so abused, in the opinion of the Central Government or as the case may be, of the State Government, his position as a member, as to render his continuance on the Board detrimental to the interest of the general public.

(2) No order of removal shall be made by the Central Government or the State Government, as the case may be, under this section unless the member concerned has been given a reasonable opportunity of showing cause against the same.

(3) Notwithstanding anything contained in sub-sections (1) and (7) of section 5, a member who has been removed under this section shall not be eligible for renomination as a member.

7. Vacation of seats by members.—If a member of a Board becomes subject to any of the disqualifications specified in section 6, his seat shall become vacant.

8. Meetings of Boards.—A Board shall meet at least once in every three months and shall observe such rules of procedure in regard to the transaction of business at its meetings as may be prescribed: Provided that if, in the opinion of the chairman, any business of an urgent nature is to be transacted, he may convene a meeting of the Board at such time as he thinks fit for the aforesaid purpose.

#### 9. Constitution of committees.—

(1) A Board may constitute as many committees consisting wholly of members or wholly of other persons or partly of members and partly of other persons, and for such purpose or purposes as it may think fit.

(2) A committee constituted under this section shall meet at such time and at such place, and shall observe such rules of procedure in regard to the transaction of business at its meetings, as may be prescribed.



(3) The members of a committee (other than the members of the Board) shall be paid such fees and allowances, for attending its meetings and for attending to any other work of the Board as may be prescribed.

10. Temporary association of persons with Board for particular purposes.—

(1) A Board may associate with itself in such manner, and for such purposes, as may be prescribed any person whose assistance or advice it may desire to obtain in performing any of its functions under this Act.

(2) A person associated with the Board under sub-section (1) for any purpose shall have a right to take part in the discussions of the Board relevant to that purpose, but shall not have a right to vote at a meeting of the Board, and shall not be a member for any other purpose. 1[(3) A person associated with the Board under sub-section (1) for any purpose shall be paid such fees and allowances, for attending its meetings and for attending to any other work of the Board, as may be prescribed.]

11. Vacancy in Board not to invalidate acts or proceedings.—No act or proceeding of a Board or any committee thereof shall be called in question on the ground merely of the existence of any vacancy in, or any defect in the constitution of, the Board or such committee, as the case may be.

1[11A. Delegation of powers to Chairman.—The Chairman of a Board shall exercise such powers and perform such duties as may be prescribed or as may, from time to time, be delegated to him by the Board.]

12. Member-secretary and officers and other employees of Board.—

(1) The terms and conditions of service of the member-secretary shall be such as may be prescribed.

(2) The member-secretary shall exercise such powers and perform such duties as may be prescribed or as may, from time to time, be delegated to him by the Board or its chairman.

(3) Subject to such rules as may be made by the Central Government or, as the case may be, the State Government in this behalf, a Board may appoint such officers and employees as it considers necessary for the efficient performance of its functions 1[\*\*\*]. 2[(3A) The method of recruitment and the terms and conditions of service (including the scales of pay) of the officers (other than the member-secretary) and other employees of the Central Board or a State Board shall be such as may be determined by regulations made by the Central Board or, as the case may be, by the State Board: Provided that no regulation made under this sub-section shall take effect unless,—

(a) in the case of a regulation made by the Central Board, it is approved by the Central Government; and

(b) in the case of a regulation made by a State Board, it is approved by the State Government.] 3[(3B) The Board may, by general or special order, and subject to such conditions and limitations, if any, as may be specified in the order, delegate to any officer of the Board such of its powers and functions under this Act as it may deem necessary.]

(4) Subject to such conditions as may be prescribed, a Board may from time to time appoint any qualified person to be a consulting engineer to the Board and pay him such salaries and allowances and subject him to such other terms and conditions of service as it thinks fit.

13. Constitution of Joint Boards.—

(1) Notwithstanding anything contained in this Act, an agreement may be entered into—

(a) by two or more Governments of contiguous States, or

(b) by the Central Government (in respect of one or more Union territories) and one or more Governments of States contiguous to such Union territory or Union territories, to be in force for

such period and to be subject to renewal for such further period, if any, as may be specified in the agreement to provide for the constitution of a Joint Board,—

(i) in a case referred to in clause (a), for all the participating States, and

(ii) in a case referred to in clause (b), for the participating Union territory or Union territories and the State or States.

(2) An agreement under this section may—

(a) provide, in a case referred to in clause (a) of sub-section (1), for the apportionment between the participating States and in a case referred to in clause

(b) of that sub-section, for the apportionments between the Central Government and the participating State Government or State Governments, of the expenditure in connection with the Joint Board;

(b) determine, in a case referred to in clause (a) of sub-section (1), which of the participating State Governments and in a case referred to in clause (b) of that sub-section, whether the Central Government or the participating State Government (if there are more than one participating State, also which of the participating State Governments) shall exercise and perform the several powers and functions of the State Government under this Act and the references in this Act to the State Government shall be construed accordingly;

(c) provide for consultation, in a case referred to in clause (a) of sub-section (1), between the participating State Governments and in a case referred to in clause (b) of that sub-section, between the Central Government and the participating State Government or State Governments either generally or with reference to particular matters arising under this Act;

(d) make such incidental and ancillary provisions, not inconsistent with this Act, as may be deemed necessary or expedient for giving effect to the agreement.

(3) An agreement under this section shall be published, in a case referred to in clause (a) of sub-section (1), in the Official Gazette of the participating States and in a case referred to in clause (b) of that sub-section, in the Official Gazette of the participating Union territory or Union territories and participating State or States.

14. Composition of Joint Boards.—

(1) A Joint Board constituted in pursuance of an agreement entered into under clause

(a) of sub-section (1) of section 13 shall consist of the following members, namely:—

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of 1[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) two officials from each of the participating States to be nominated by the concerned participating State Government to represent that Government;

(c) one person to be nominated by each of the participating State Governments from amongst the members of the local authorities functioning within the State concerned;

(d) one non-official to be nominated by each of the participating State Governments to represent the interests of agriculture, fishery or industry or trade in the State concerned or any other interest which, in the opinion of the participating State Government, is to be represented;

(e) two persons to be nominated by the Central Government to represent the companies or corporations owned, controlled or managed by the participating State Governments; 2[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(2) A Joint Board constituted in pursuance of an agreement entered into under clause (b) of sub-section (1) of section 13 shall consist of the following members, namely:—

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of 3[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) two officials to be nominated by the Central Government from the participating Union territory or each of the participating Union territories, as the case may be, and two officials to be nominated, from the participating State or each of the participating States, as the case may be, by the concerned participating State Government;

(c) one person to be nominated by the Central Government from amongst the members of the local authorities functioning within the participating Union territory or each of the participating Union territories, as the case may be, and one person to be nominated, from amongst the members of the local authorities functioning within the participating State or each of the participating States, as the case may be, by the concerned participating State Government;

(d) one non-official to be nominated by Central Government and one person to be nominated by the participating State Government or State Governments to represent the interests of agriculture, fishery or industry or trade in the Union territory or in each of the Union territories or the State or in each of the States, as the case may be, or any other interest which in the opinion of the Central Government or, as the case may be, of the State Government is to be represented;

(e) two persons to be nominated by the Central Government to represent the companies or corporations owned, controlled or managed by the Central Government and situate in the participating Union territory or territories and two persons to be nominated by the Central Government to represent the companies or corporations owned, controlled or managed by the participating State Governments;

4[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(3) When a Joint Board is constituted in pursuance of an agreement under clause (b) of sub-section (1) of section 13, the provisions of sub-section (4) of section 4 shall cease to apply in relation to the Union territory for which the Joint Board is constituted.

(4) Subject to the provisions of sub-section (3), the provisions of sub-section (3) of section 4 and sections 5 to 12 (inclusive) shall apply in relation to the Joint Board and its member-secretary as they apply in relation to a State Board and its member-secretary.

(5) Any reference in this Act to the State Board shall, unless the context otherwise requires, be construed as including a Joint Board.

15. Special provision relating to giving of directions.—Notwithstanding anything contained in this Act where any Joint Board is constituted under section 13,—

(a) the Government of the State for which the Joint Board is constituted shall be competent to give any direction under this Act only in cases where such direction relates to a matter within the exclusive territorial jurisdiction of the State;

(b) the Central Government alone shall be competent to give any direction under this Act where such direction relates to a matter within the territorial jurisdiction of two or more States or pertaining to a Union territory.

16. Functions of Central Board.—

(1) Subject to the provisions of this Act, the main function of the Central Board shall be to promote cleanliness of streams and wells in different areas of the States.

(2) In particular and without prejudice to the generality of the foregoing function, the Central Board may perform all or any of the following functions, namely:—

- (a) advise the Central Government on any matter concerning the prevention and control of water pollution;
- (b) co-ordinate the activities of the State Boards and resolve disputes among them;
- (c) provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;
- (d) plan and organise the training of persons engaged or to be engaged in programmes for the prevention, control or abatement of water pollution on such terms and conditions as the Central Board may specify;
- (e) organise through mass media a comprehensive programme regarding the prevention and control of water pollution; 1[(ee) perform such of the functions of any State Board as may be specified in an order made under sub-section (2) of section 18;]
- (f) collect, compile and publish technical and statistical data relating to water pollution and the measures devised for its effective prevention and control and prepare manuals, codes or guides relating to treatment and disposal of sewage and trade effluents and disseminate information connected therewith;
- (g) lay down, modify or annul, in consultation with the State Government concerned, the standards for a stream or well: Provided that different standards may be laid down for the same stream or well or for different streams or wells, having regard to the quality of water, flow characteristics of the stream or well and the nature of the use of the water in such stream or well or streams or wells;
- (h) plan and cause to be executed a nation-wide programme for the prevention, control or abatement of water pollution;
- (i) perform such other functions as may be prescribed.

(3) The Board may establish or recognize a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents.

#### 17. Functions of State Board.—

(1) Subject to the provisions of this Act, the functions of a State Board shall be—

- (a) to plan a comprehensive programme for the prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof;
- (b) to advise the State Government on any matter concerning the prevention, control or abatement of water pollution;
- (c) to collect and disseminate information relating to water pollution and the prevention, control or abatement thereof;
- (d) to encourage, conduct and participate investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;
- (e) to collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of water pollution and to organise mass education programmes relating thereto;

(f) to inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent as required by this Act;

(g) to lay down, modify or annul effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an inter-State stream) resulting from the discharge of effluents and to classify waters of the State;

(h) to evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the peculiar conditions of soils, climate and water resources of different regions and more especially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree of dilution;

(i) to evolve methods of utilisation of sewage and suitable trade effluents in agriculture;

(j) to evolve efficient methods of disposal of sewage and trade effluents on land, as are necessary on account of the predominant conditions of scant stream flows that do not provide for major part of the year the minimum degree of dilution;

(k) to lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents;

(l) to make, vary or revoke any order—

(i) for the prevention, control or abatement of discharges of waste into streams or wells;

(ii) requiring any person concerned to construct new systems for the disposal of sewage and trade effluents or to modify, alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent, control or abate water pollution;

(m) to lay down effluent standards to be complied with by persons while causing discharge of sewage or sullage or both and to lay down, modify or annul effluent standards for the sewage and trade effluents;

(n) to advise the State Government with respect to the location of any industry the carrying on of which is likely to pollute a stream or well;

(o) to perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by the Central Board or the State Government.

(2) The Board may establish or recognise a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents.

18. Powers to give directions.—

1[(1) ] In the performance of its functions under this Act—

(a) the Central Board shall be bound by such directions in writing as the Central Government may give to it; and

(b) every State Board shall be bound by such directions in writing as the Central Board or the State Government may give to it: Provided that where a direction given by the State Government is inconsistent with the direction given by the Central Board, the matter shall be referred to the Central Government for its decision.

2[(2) Where the Central Government is of the opinion that any State Board has defaulted in complying with any directions given by the Central Board under sub-section (1) and as a result of such default a grave emergency has arisen and it is necessary or expedient so to do in the

public interest, it may, by order, direct the Central Board to perform any of the functions of the State Board in relation to such area for such period and for such purposes, as may be specified in the order.

(3) Where the Central Board performs any of the functions of the State Board in pursuance of a direction under sub-section (2), the expenses, if any, incurred by the Central Board with respect to the performance of such functions may, if the State Board is empowered to recover such expenses, be recovered by the Central Board with interest (at such reasonable rate as the Central Government may, by order, fix) from the date when a demand for such expenses is made until it is paid from the person or persons concerned as arrears of land revenue or of public demand.

(4) For the removal of doubts, it is hereby declared that any directions to perform the functions of any State Board given under sub-section (2) in respect of any area would not preclude the State Board from performing such functions in any other area in the State or any of its other functions in that area.]

#### 19. Power of State Government to restrict the application of the Act to certain areas.—

(1) Notwithstanding anything contained in this Act, if the State Government, after consultation with, or on the recommendation of, the State Board, is of opinion that the provisions of this Act need not apply to entire State, it may, by notification in the Official Gazette, restrict the application of this Act to such area or areas as may be declared therein as water pollution, prevention and control area or areas and thereupon the provisions of this Act shall apply only to such area or areas.

(2) Each water pollution, prevention and control area may be declared either by reference to a map or by reference to the line of any watershed or the boundary of any district or partly by one method and partly by another.

(3) The State Government may, by notification in the Official Gazette,—

(a) alter any water pollution, prevention and control area whether by way of extension or reduction; or

(b) define a new water pollution, prevention and control area in which may be merged one or more water pollution, prevention and control areas, or any part or parts thereof.

#### 20. Power to obtain information.—

(1) For the purpose of enabling a State Board to perform the functions conferred on it by or under this Act, the State Board or any officer empowered by it in that behalf, may make surveys of any area and gauge and keep records of the flow or volume and other characteristics of any stream or well in such area, and may take steps for the measurement and recording of the rainfall in such area or any part thereof and for the installation and maintenance for those purposes of gauges or other apparatus and works connected therewith, and carry out stream surveys and may take such other steps as may be necessary in order to obtain any information required for the purposes aforesaid.

(2) A State Board may give directions requiring any person who in its opinion is abstracting water from any such stream or well in the area in quantities which are substantial in relation to the flow or volume of that stream or well or is discharging sewage or trade effluent into any such stream or well, to give such information as to the abstraction or the discharge at such times and in such form as may be specified in the directions.

(3) Without prejudice to the provisions of sub-section (2), a State Board may, with a view to preventing or controlling pollution of water, give directions requiring any person in charge of any establishment where any [industry, operation or process, or treatment and disposal system] is carried on, to furnish to it information regarding the construction, installation or operation of such establishment or of any disposal system or of any extension or addition thereto in such establishment and such other particulars as may be prescribed.

#### 21. Power to take samples of effluents and procedure to be followed in connection therewith.—

(1) A State Board or any officer empowered by it in this behalf shall have power to take for the purpose of analysis samples of water from any stream or well or samples of any sewage or trade effluent which is passing from any plant or vessel or from or over any place into any such stream or well.

(2) The result of any analysis of a sample of any sewage or trade effluent taken under sub-section (1) shall not be admissible in evidence in any legal proceeding unless the provisions of sub-sections (3), (4) and (5) are complied with.

(3) Subject to the provisions of sub-sections (4) and (5), when a sample (composite or otherwise as may be warranted by the process used) of any sewage or trade effluent is taken for analysis under sub-section (1), the person taking the sample shall—

(a) serve on the person in charge of, or having control over, the plant or vessel or in occupation of the place (which person is hereinafter referred to as the occupier) or any agent of such occupier, a notice, then and there in such form as may be prescribed of his intention to have it so analysed;

(b) in the presence of the occupier or his agent, divide the sample into two parts;

(c) cause each part to be placed in a container which shall be marked and sealed and shall also be signed both by the person taking the sample and the occupier or his agent;

(d) send one container forthwith,—

(i) in a case where such sample is taken from any area situated in a Union territory, to the laboratory established or recognised by the Central Board under section 16; and

(ii) in any other case, to the laboratory established or recognised by the State Board under section 17;

(e) on the request of the occupier or his agent, send the second container,—

(i) in a case where such sample is taken from any area situated in a Union territory, to the laboratory established or specified under sub-section (1) of section 51; and

(ii) in any other case, to the laboratory established or specified under sub-section (1) of section 52. 1[(4) When a sample of any sewage or trade affluent is taken for analysis under sub-section (1) and the person taking the sample serves on the occupier or his agent, a notice under clause (a) of sub-section (3) and the occupier or his agent wilfully absents himself, then,—

(a) the sample so taken shall be placed in a container which shall be marked and sealed and shall also be signed by the person taking the sample and the same shall be sent forthwith by such person for analysis to the laboratory referred to in sub-clause (i) or sub-clause (ii), as the case may be, of clause (e) of sub-section (3) and such person shall inform the Government analyst appointed under sub-section (1) or sub-section (2), as the case may be, of section 53, in writing about the wilful absence of the occupier or his agent; and

(b) the cost incurred in getting such sample analysed shall be payable by the occupier or his agent and in case of default of such payment, the same shall be recoverable from the occupier or his agent, as the case may be, as an arrear of land revenue or of public demand: Provided that no such recovery shall be made unless the occupier or, as the case may be, his agent has been given a reasonable opportunity of being heard in the matter.]

(5) When a sample of any sewage or trade effluent is taken for analysis under sub-section (1) and the person taking the sample serves on the occupier or his agent a notice under clause (a) of sub-section (3) and the occupier or his agent who is present at the time of taking the sample does not make a request for dividing the sample into two parts as provided in clause (b) of sub-section (3), then, the sample so taken shall be placed in a container which shall be marked and sealed and shall also be signed by the person taking the sample and the same shall be sent forthwith by such

person for analysis to the laboratory referred to in sub-clause (i) or sub-clause (ii), as the case may be, of clause (d) of sub-section (3).

## 22. Reports of the result of analysis on samples taken under section 21.—

(1) Where a sample of any sewage or trade effluent has been sent for analysis to the laboratory established or recognised by the Central Board or, as the case may be, the State Board, the concerned Board analyst appointed under sub-section (3) of section 53 shall analyse the sample and submit a report in the prescribed form of the result of such analysis in triplicate to the Central Board or the State Board as the case may be.

(2) On receipt of the report under sub-section (1), one copy of the report shall be sent by the Central Board or the State Board, as the case may be, to the occupier or his agent referred to in section 21, another copy shall be preserved for production before the court in case any legal proceedings are taken against him and the other copy shall be kept by the concerned Board.

(3) Where a sample has been sent for analysis under clause (e) of sub-section (3) or sub-section (4) of section 21 to any laboratory mentioned therein, the Government analyst referred to in that sub-section shall analyse the sample and submit a report in the prescribed form of the result of the analysis in triplicate to the Central Board or, as the case may be, the State Board which shall comply with the provisions of sub-section (2).

(4) If there is any inconsistency or discrepancy between, or variation in the results of, the analysis carried out by the laboratory established or recognised by the Central Board or the State Board, as the case may be, and that of the laboratory established or specified under section 51 or section 52, as the case may be, the report of the latter shall prevail.

(5) Any cost incurred in getting any sample analysed at the request of the occupier or his agent shall be payable by such occupier or his agent and in case of default the same shall be recoverable from him as arrears of land revenue or of public demand.

## 23. Power of entry and inspection.—

(1) Subject to the provisions of this section, any person empowered by a State Board in this behalf shall have a right at any time to enter, with such assistance as he considers necessary, any place—

(a) for the purpose of performing any of the functions of the Board entrusted to him;

(b) for the purpose of determining whether and if so in what manner, any such functions are to be performed or whether any provisions of this Act or the rules made thereunder or any notice, order, direction or authorisation served, made, given, or granted under this Act is being or has been complied with;

(c) for the purpose of examining any plant, record, register, document or any other material object or for conducting a search of any place in which he has reason to believe that an offence under this Act or the rules made thereunder has been or is being or is about to be committed and for seizing any such plant, record, register, document or other material object, if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder: Provided that the right to enter under this sub-section for the inspection of a well shall be exercised only at reasonable hours in a case where such well is situated in any premises used for residential purposes and the water thereof is used exclusively for domestic purposes.

(2) The provisions of 1[the Code of Criminal Procedure, 1973 (2 of 1974)], or, in relation to the State of Jammu and Kashmir, the provisions of any corresponding law in force in that State, shall, so far as may be, apply to any search or seizure under this section as they apply to any search or seizure made under the authority of a warrant issued under 2[section 94] of the said Code, or, as the case may be, under the corresponding provisions of the said law. Explanation.— For the purposes of this section, “place” includes vessel.

## 24. Prohibition on use of stream or well for disposal of polluting matter, etc.—



(1) Subject to the provisions of this section,—

(a) no person shall knowingly cause or permit any poisonous, noxious or polluting matter determined in accordance with such standards as may be laid down by the State Board to enter (whether directly or indirectly) into any 1[stream or well or sewer or on land]; or

(b) no person shall knowingly cause or permit to enter into any stream any other matter which may tend, either directly or in combination with similar matters, to impede the proper flow of the water of the stream in a manner leading or likely to lead to a substantial aggravation of pollution due to other causes or of its consequences.

(2) A person shall not be guilty of an offence under sub-section (1), by reason only of having done or caused to be done any of the following acts, namely:—

(a) constructing, improving or maintaining in or across or on the bank or bed of any stream any building, bridge, weir, dam, sluice, dock, pier, drain or sewer or other permanent works which he has a right to construct, improve or maintain;

(b) depositing any materials on the bank or in the bed of any stream for the purpose of reclaiming land or for supporting, repairing or protecting the bank or bed of such stream provided such materials are not capable of polluting such stream;

(c) putting into any stream any sand or gravel or other natural deposit which has flowed from or been deposited by the current of such stream;

(d) causing or permitting, with the consent of the State Board, the deposit accumulated in a well, pond or reservoir to enter into any stream.

(3) The State Government may, after consultation with, or on the recommendation of, the State Board, exempt, by notification in the Official Gazette, any person from the operation of sub-section (1) subject to such conditions, if any, as may be specified in the notification and any condition so specified may by a like notification be altered, varied or amended.

25. Restrictions on new outlets and new discharges.—

1[(1) Subject to the provisions of this section, no person shall, without the previous consent of the State Board,—

(a) establish or take any steps to establish any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land (such discharge being hereafter in this section referred to as discharge of sewage); or

(b) bring into use any new or altered outlet for the discharge of sewage; or

(c) begin to make any new discharge of sewage: Provided that a person in the process of taking any steps to establish any industry, operation or process immediately before the commencement of the Water (Prevention and Control of Pollution) Amendment Act, 1988, for which no consent was necessary prior to such commencement, may continue to do so for a period of three months from such commencement or, if he has made an application for such consent, within the said period of three months, till the disposal of such application.

(2) An application for consent of the State Board under sub-section (1) shall be made in such form, contain such particulars and shall be accompanied by such fees as may be prescribed.]

(3) The State Board may make such inquiry as it may deem fit in respect of the application for consent referred to in sub-section (1) and in making any such inquiry shall follow such procedure as may be prescribed. 2[(4) The State Board may—

(a) grant its consent referred to in sub-section (1), subject to such conditions as it may impose, being—

(i) in cases referred to in clauses (a) and (b) of sub-section (1) of section 25, conditions as to the point of discharge of sewage or as to the use of that outlet or any other outlet for discharge of sewage;

(ii) in the case of a new discharge, conditions as to the nature and composition, temperature, volume or rate of discharge of the effluent from the land or premises from which the discharge or new discharge is to be made; and

(iii) that the consent will be valid only for such period as may be specified in the order, and any such conditions imposed shall be binding on any person establishing or taking any steps to establish any industry, operation or process, or treatment and disposal system of extension or addition thereto, or using the new or altered outlet, or discharging the effluent from the land or premises aforesaid; or

(b) refuse such consent for reasons to be recorded in writing.

(5) Where, without the consent of the State Board, any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, is established, or any steps for such establishment have been taken or a new or altered outlet is brought into use for the discharge of sewage or a new discharge of sewage is made, the State Board may serve on the person who has established or taken steps to establish any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, or using the outlet, or making the discharge, as the case may be, a notice imposing any such conditions as it might have imposed on an application for its consent in respect of such establishment, such outlet or discharge.

(6) Every State Board shall maintain a register containing particulars of the conditions imposed under this section and so much of the register as relates to any outlet, or to any effluent, from any land or premises shall be open to inspection at all reasonable hours by any person interested in, or affected by such outlet, land or premises, as the case may be, or by any person authorised by him in this behalf and the conditions so contained in such register shall be conclusive proof that the consent was granted subject to such conditions.]

(7) The consent referred to in sub-section (1) shall, unless given or refused earlier, be deemed to have been given unconditionally on the expiry of a period of four months of the making of an application in this behalf complete in all respects to the State Board.

(8) For the purposes of this section and sections 27 and 30,—

(a) the expression “new or altered outlet” means any outlet which is wholly or partly constructed on or after the commencement of this Act or which (whether so constructed or not) is substantially altered after such commencement;

(b) the expression “new discharge” means a discharge which is not, as respects the nature and composition, temperature, volume, and rate of discharge of the effluent substantially a continuation of a discharge made within the preceding twelve months (whether by the same or a different outlet), so however that a discharge which is in other respects a continuation of previous discharge made as aforesaid shall not be deemed to be a new discharge by reason of any reduction of the temperature or volume or rate of discharge of the effluent as compared with the previous discharge.

26. Provision regarding existing discharge of sewage or trade effluent.—Where immediately before the commencement of this Act any person was discharging any sewage or trade effluent into a 1[stream or well or sewer or on land], the provisions of section 25 shall, so far as may be, apply in relation to such person as they apply in relation to the person referred to in that section subject to the modification that the application for consent to be made under sub-section (2) of that section 2[shall be made on or before such date as may be specified by the State Government by notification in this behalf in the Official Gazette].

27. Refusal or withdrawal of consent by State Board.—

1[(1) A State Board shall not grant its consent under sub-section (4) of section 25 for the establishment of any industry, operation or process, or treatment and disposal system or extension or addition thereto, or to the bringing into use of a new or altered outlet unless the industry, operation or process, or treatment and disposal system or extension or addition thereto, or the outlet is so established as to comply with any conditions imposed by the Board to enable it to exercise its right to take samples of the effluent.]

2[(2) A State Board may from time to time review— 3[(a) any condition imposed under section 25 or section 26 and may serve on the person to whom a consent under section 25 or section 26 is granted a notice making any reasonable variation of or revoking any such condition;]

(b) the refusal of any consent referred to in sub-section (1) of section 25 or section 26 or the grant of such consent without any condition, and may make such orders as it deems fit.]

(3) Any condition imposed under section 25 or section 26 shall be subject to any variation made under sub-section (2) and shall continue in force until revoked under that sub-section.

#### 28. Appeals.—

(1) Any person aggrieved by an order made by the State Board under section 25, section 26 or section 27 may, within thirty days from the date on which the order is communicated to him, prefer an appeal to such authority (hereinafter referred to as the appellate authority) as the State Government may think fit to constitute: Provided that the appellate authority may entertain the appeal after the expiry of the said period of thirty days if such authority is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

1[(2) An appellate authority shall consist of a single person or three persons as the State Government may think fit, to be appointed by that Government.]

(3) The form and manner in which an appeal may be preferred under sub-section (1), the fees payable for such appeal and the procedure to be followed by the appellate authority shall be such as may be prescribed.

(4) On receipt of an appeal preferred under sub-section (1), the appellate authority shall, after giving the appellant and the State Board an opportunity of being heard, dispose of the appeal as expeditiously as possible.

(5) If the appellate authority determines that any condition imposed, or the variation of any condition, as the case may be, was unreasonable, then,—

(a) where the appeal is in respect of the unreasonableness of any condition imposed, such authority may direct either that the condition shall be treated as annulled or that there shall be substituted for it such condition as appears to it to be reasonable;

(b) where the appeal is in respect of the unreasonableness of any variation of a condition, such authority may direct either that the condition shall be treated as continuing in force unvaried or that it shall be varied in such manner as appears to it to be reasonable.

#### 29. Revision.—

(1) The State Government may at any time either of its own motion or on an application made to it in this behalf, call for the records of any case where an order has been made by the State Board under section 25, section 26 or section 27 for the purpose of satisfying itself as to the legality or propriety of any such order and may pass such order in relation thereto as it may think fit: Provided that the State Government shall not pass any order under this sub-section without affording the State Board and the person who may be affected by such order a reasonable opportunity of being heard in the matter.

(2) The State Government shall not revise any order made under section 25, section 26, or section 27 where an appeal against that order lies to the appellate authority, but has not been preferred or where an appeal has been preferred such appeal is pending before the appellate authority.

30. Power of State Board to carry out certain works.—

1[(1) Where under this Act, any conditions have been imposed on any person while granting consent under section 25 or section 26 and such conditions require such person to execute any work in connection therewith and such work has not been executed within such time as may be specified in this behalf, the State Board may serve on the person concerned a notice requiring him within such time (not being less than thirty days) as may be specified in the notice to execute the work specified therein.]

(2) If the person concerned fails to execute the work as required in the notice referred to in sub-section (1), then, after the expiration of the time specified in the said notice, the State Board may itself execute or cause to be executed such work.

(3) All expenses incurred by the State Board for the execution of the aforesaid work, together with interest, at such rate as the State Government may, by order, fix, from the date when a demand for the expenses is made until it is paid, may be recovered by that Board from the person concerned, as arrears of land revenue, or of public demand.

31. Furnishing of information to State Board and other agencies in certain cases.—

1[(1) If at any place where any industry, operation or process, or any treatment and disposal system or any extension or addition thereto is being carried on, due to accident or other unforeseen act or event, any poisonous, noxious or polluting matter is being discharged, or is likely to be discharged into a stream or well or sewer or on land and, as a result of such discharge, the water in any stream or well is being polluted, or is likely to be polluted, then the person in charge of such place shall forthwith intimate the occurrence of such accident, act or event to the State Board and such other authorities or agencies as may be prescribed.]

(2) Where any local authority operates any sewerage system or sewage works, the provisions of sub-section (1) shall apply to such local authority as they apply in relation to the person in charge of the place where any industry or trade is being carried on.

32. Emergency measures in case of pollution of stream or well.—

(1) Where it appears to the State Board that any poisonous, noxious or polluting matter is present in 1[any stream or well or on land by reason of the discharge of such matter in such stream or well or on such land] or has entered into that stream or well due to any accident or other unforeseen act or event, and if the Board is of opinion that it is necessary or expedient to take immediate action, it may for reasons to be recorded in writing, carry out such operations, as it may consider necessary for all or any of the following purposes, that is to say,—

(a) removing that matter from the 2[stream or well or on land] and disposing it of in such manner as the Board considers appropriate;

(b) remedying or mitigating any pollution caused by its presence in the stream or well;

(c) issuing orders immediately restraining or prohibiting the person concerned from discharging any poisonous, noxious or polluting matter 3[into the stream or well or on land] or from making insanitary use of the stream or well.

(2) The power conferred by sub-section (1) does not include the power to construct any works other than works of a temporary character which are removed on or before the completion of the operations.

33. Power of Board to make application to courts for restraining apprehended pollution of water in streams or wells.—

1[(1) Where it is apprehended by a Board that the water in any stream or well is likely to be polluted by reason of the disposal or likely disposal of any matter in such stream or well or in any sewer or on any land, or otherwise, the Board may make an application to a court, not

inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class, for restraining the person who is likely to cause such pollution from so causing.]

(2) On receipt of an application under sub-section (1) the court may make such order as it deems fit.

(3) Where under sub-section (2) the court makes an order restraining any person from polluting the water in any stream or well, it may in that order—

(i) direct the person who is likely to cause or has caused the pollution of the water in the stream or well, to desist from taking such action as is likely to cause pollution or, as the case may be, to remove from such stream or well, such matter, and

(ii) authorise the Board, if the direction under clause (i) (being a direction for the removal of any matter from such stream or well) is not complied with by the person to whom such direction is issued, to undertake the removal and disposal of the matter in such manner as may be specified by the court.

(4) All expenses incurred by the Board in removing any matter in pursuance of the authorisation under clause (ii) of sub-section (3) or in the disposal of any such matter may be defrayed out of any money obtained by the Board from such disposal and any balance outstanding shall be recoverable from the person concerned as arrears of land revenue or of public demand.

1[33A. Power to give directions.—Notwithstanding anything contained in any other law, but subject to the provisions of this Act, and to any directions that the Central Government may give in this behalf, a Board may, in the exercise of its powers and performance of its functions under this Act, issue any directions in writing to any person, officer or authority, and such person, officer or authority shall be bound to comply with such directions. Explanation.—For the avoidance of doubts, it is hereby declared that the power to issue directions under this section includes the power to direct—

(a) the closure, prohibition or regulation of any industry, operation or process; or

(b) the stoppage or regulation of supply of electricity, water or any other service.]

1 [ 33B Appeal to National Green Tribunal. —Any person aggrieved by,—

(a) an order or decision of the appellate authority under section 28, made on or after the commencement of the National Green Tribunal Act, 2010; or

(b) an order passed by the State Government under section 29, on or after the commencement of the National Green Tribunal Act, 2010; or

(c) directions issued under section 33A by a Board, on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act.]

34. Contributions by Central Government.—The Central Government may, after due appropriation made by Parliament by law in this behalf, make in each financial year such contributions to the Central Board as it may think necessary to enable the Board to perform its functions under this Act.

35. Contributions by State Government.—The State Government may, after due appropriation made by the Legislature of the State by law in this behalf, make in each financial year such contributions to the State Board as it may think necessary to enable that Board to perform its functions under this Act.

36. Fund of Central Board.—

(1) The Central Board shall have its own fund, and all sums which may, from time to time, be paid to it by the Central Government and all other receipts (by way of gifts, grants, donations,

benefactions 1[fees] or otherwise) of that Board shall be carried to the fund of the Board and all payments by the Board shall be made therefrom.

(2) The Central Board may expend such sums as it thinks fit for performing its functions under this Act, 2[and, where any law for the time being in force relating to the prevention, control or abatement of air pollution provides for the performance of any function under such law by the Central Board, also for performing its functions under such law] and such sums shall be treated as expenditure payable out of the fund of the Board.

#### 37. Fund of State Board.—

(1) The State Board shall have its own fund, and the sums which may, from time to time, be paid to it by the State Government and all other receipts (by way of gifts, grants, donations, benefactions 1[fees] or otherwise) of that Board shall be carried to the fund of the Board and all payments by the Board shall be made therefrom.

(2) The State Board may expend such sums as it thinks fit for performing its functions under this Act, 1[and, where any law for the time being in force relating to the prevention, control or abatement of air pollution provides for the performance of any function under such law by the State Board, also for performing its functions under such law] and such sums shall be treated as expenditure payable out of the fund of that Board.

1[37A. Borrowing powers of Board.—A Board may, with the consent of, or in accordance with, the terms of any general or special authority given to it by the Central Government or, as the case may be, the State Government, borrow money from any source by way of loans or issue of bonds, debentures or such other instruments, as it may deem fit, for the performance of all or any of its functions under this Act.]

38. Budget.— The Central Board or, as the case may be, the State Board shall, during each financial year, prepare, in such form and at such time as may be prescribed, a budget in respect of the financial year next ensuing showing the estimated receipt and expenditure, and copies thereof shall be forwarded to the Central Government or, as the case may be, the State Government.

#### 1[39. Annual report.—

(1) The Central Board shall, during each financial year, prepare, in such form as may be prescribed, an annual report giving full account of its activities under this Act during the previous financial year and copies thereof shall be forwarded to the Central Government within four months from the last date of the previous financial year and that Government shall cause every such report to be laid before both Houses of Parliament within nine months from the last date of the previous financial year.

(2) Every State Board shall, during each financial year, prepare, in such form as may be prescribed, an annual report giving full account of its activities under this Act during the previous financial year and copies thereof shall be forwarded to the State Government within four months from the last date of the previous financial year and that Government shall cause every such report to be laid before the State Legislature within a period of nine months from the last date of the previous financial year.]

#### 40. Accounts and audit.—

(1) Every Board shall maintain proper accounts and other relevant records and prepare an annual statement of accounts in such form as may be prescribed by the Central Government or, as the case may be, the State Government.

(2) The accounts of the Board shall be audited by an auditor duly qualified to act as an auditor of companies under section 226 of the Companies Act, 1956 (1 of 1956).

(3) The said auditor shall be appointed by the Central Government or, as the case may be, the State Government on the advice of the Comptroller and Auditor-General of India.

(4) Every auditor appointed to audit the accounts of the Board under this Act shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect any of the offices of the Board.

(5) Every such auditor shall send a copy of his report together with an audited copy of the accounts to the Central Government or, as case may be, the State Government.

(6) The Central Government shall, as soon as may be after the receipt of the audit report under sub-section (5), cause the same to be laid before both Houses of Parliament.

(7) The State Government shall, as soon as may be after the receipt of the audit report under sub-section (5), cause the same to be laid before the State Legislature.

1[41. Failure to comply with directions under sub-section (2) or sub-section (3) of section 20, or orders issued under clause (c) of sub-section

(1) of section 32 or directions issued under sub-section (2) of section 33 or section 33A.—(1) Whoever fails to comply with the direction given under sub-section (2) or sub-section (3) of section 20 within such time as may be specified in the direction shall, on conviction, be punishable with imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.

(2) Whoever fails to comply with any order issued under clause (c) of sub-section (1) of section 32 or any direction issued by a court under sub-section (2) of section 33 or any direction issued under section 33A shall, in respect of each such failure and on conviction, be punishable with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and with fine, and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.

(3) If the failure referred to in sub-section (2) continues beyond a period of one year after the date of conviction, the offender shall, on conviction, be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine.]

42. Penalty for certain acts.—

(1) Whoever—

(a) destroys, pulls down, removes, injures or defaces any pillar, post or stake fixed in the ground or any notice or other matter put up, inscribed or placed, by or under the authority of the Board, or

(b) obstructs any person acting under the orders or directions of the Board from exercising his powers and performing his functions under this Act, or

(c) damages any works or property belonging to the Board, or

(d) fails to furnish to any officer or other employee of the Board any information required by him for the purpose of this Act, or

(e) fails to intimate the occurrence of any accident or other unforeseen act or event under section 31 to the Board and other authorities or agencies as required by that section, or

(f) in giving any information which he is required to give under this Act, knowingly or wilfully makes a statement which is false in any material particular, or

(g) for the purpose of obtaining any consent under section 25 or section 26, knowingly or wilfully makes a statement which is false in any material particular, shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to 1[ten thousand rupees] or with both.

(2) Where for the grant of a consent in pursuance of the provisions of section 25 or section 26 the use of meter or gauge or other measure or monitoring device is required and such device is used for the purposes of those provisions, any person who knowingly or wilfully alters or interferes with that device so as to prevent it from monitoring or measuring correctly shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to 1[ten thousand rupees] or with both.

43. Penalty for contravention of provisions of section 24.—Whoever contravenes the provisions of section 24 shall be punishable with imprisonment for a term which shall not be less than 1[one year and six months] but which may extend to six years and with fine.

44. Penalty for contravention of section 25 or section 26.—Whoever contravenes the provisions of section 25 or section 26 shall be punishable with imprisonment for a term which shall not be less than 1[one year and six months] but which may extend to six years and with fine.

45. Enhanced penalty after previous conviction.—If any person who has been convicted of any offence under section 24 or section 25 or section 26 is again found guilty of an offence involving a contravention of the same provision, he shall, on the second and on every subsequent conviction, be punishable with imprisonment for a term which shall not be less than 1[two years] but which may extend to seven years and with fine: Provided that for the purpose of this section no cognizance shall be taken of any conviction made more than two years before the commission of the offence which is being punished.

1[45A. Penalty for contravention of certain provisions of the Act.—Whoever contravenes any of the provisions of this Act or fails to comply with any order or direction given under this Act, for which no penalty has been elsewhere provided in this Act, shall be punishable with imprisonment which may extend to three months or with fine which may extend to ten thousand rupees or with both, and in the case of a continuing contravention or failure, with an additional fine which may extend to five thousand rupees for every day during which such contravention or failure continues after conviction for the first such contravention or failure.]

46. Publication of names of offenders.—If any person convicted of an offence under this Act commits a like offence afterwards it shall be lawful for the court before which the second or subsequent conviction takes place to cause the offender's name and place of residence, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

47. Offences by companies.—

(1) Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of, and was responsible to the company for the conduct of, the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly: Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly. Explanation.—For the purposes of this section,—

(a) “company” means any body corporate, and includes a firm or other association of individuals; and

(b) “director” in relation to a firm means a partner in the firm.



48. Offences by Government Departments.—Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly: Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

49. Cognizance of offences.—

1[(1) No court shall take cognizance of any offence under this Act except on a complaint made by—

(a) a Board or any officer authorised in this behalf by it; or

(b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint, to the Board or officer authorised as aforesaid, and no court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class shall try any offence punishable under this Act.]

2[2] Where a complaint has been made under clause (b) of sub-section (1), the Board shall, on demand by such person, make available the relevant reports in its possession to that person: Provided that the Board may refuse to make any such report available to such person if the same is, in its opinion, against the public interest.]

3[(3)] Notwithstanding anything contained in section 4[29 of the Code of Criminal Procedure, 1973 (2 of 1974)], it shall be lawful for any 4[Judicial Magistrate of the first class or for any Metropolitan Magistrate] to pass a sentence of imprisonment for a term exceeding two years or of fine exceeding two thousand rupees on any person convicted of an offence punishable under this Act.

50. Members, officers and servants of Boards to be public servants.—All members, officers and servants of a Board when acting or purporting to act in pursuance of any of the provisions of this Act and the rules made thereunder shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code (45 of 1860).

51. Central Water Laboratory.—

(1) The Central Government may, by notification in the Official Gazette,—

(a) establish a Central Water Laboratory; or

(b) specify any laboratory or institute as a Central Water Laboratory, to carry out the functions entrusted to the Central Water Laboratory under this Act.

(2) The Central Government may, after consultation with the Central Board, make rules prescribing—

(a) the functions of the Central Water Laboratory;

(b) the procedure for the submission to the said laboratory of samples of water or of sewage or trade effluent for analysis or tests, the form of the laboratory's report thereunder and the fees payable in respect of such report;

(c) such other matters as may be necessary or expedient to enable that laboratory to carry out its functions.

52. State Water Laboratory.—

(1) The State Government may, by notification in the Official Gazette,—

(a) establish a State Water Laboratory; or

(b) specify any laboratory or institute as a State Water Laboratory, to carry out the functions entrusted to the State Water Laboratory under this Act.

(2) The State Government may, after consultation with the State Board, make rules prescribing—

(a) the functions of the State Water Laboratory;

(b) the procedure for the submission to the said laboratory of samples of water or of sewage or trade effluent for analysis or tests, the form of the laboratory's report thereon and the fees payable in respect of such report;

(c) such other matters as may be necessary or expedient to enable that laboratory to carry out its functions.

53. Analysts.—

(1) The Central Government may, by notification in the Official Gazette, appoint such persons as it thinks fit and having the prescribed qualifications to be Government analysts for the purpose of analysis of samples of water or of sewage or trade effluent sent for analysis to any laboratory established or specified under sub-section (1) of section 51.

(2) The State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit and having the prescribed qualifications to be Government analysts for the purpose of analysis of samples of water or of sewage or trade effluent sent for analysis to any laboratory established or specified under sub-section (1) of section 52.

(3) Without prejudice to the provisions of sub-section (3) of section 12, the Central Board or, as the case may be, the State Board may, by notification in the Official Gazette, and with the approval of the Central Government or the State Government, as the case may be, appoint such persons as it thinks fit and having the prescribed qualifications to be Board analysts for the purpose of analysis of samples of water or of sewage or trade effluent sent for analysis to any laboratory established or recognised under section 16, or, as the case may be, under section 17.

54. Reports of analysts.—Any document purporting to be a report signed by a Government analyst or, as the case may be, a Board analyst may be used as evidence of the facts stated therein in any proceeding under this Act.

55. Local authorities to assist.—All local authorities shall render such help and assistance and furnish such information to the Board as it may require for the discharge of its functions, and shall make available to the Board for inspection and examination such records, maps, plans and other documents as may be necessary for the discharge of its functions.

56. Compulsory acquisition of land for the State Board.—Any land required by a State Board for the efficient performance of its functions under this Act shall be deemed to be needed for a public purpose and such land shall be acquired for the State Board under the provisions of the Land Acquisition Act, 1894 (1 of 1894), or under any other corresponding law for the time being in force.

57. Returns and reports.—The Central Board shall furnish to the Central Government, and a State Board shall furnish to the State Government and to the Central Board such reports, returns, statistics, accounts and other information with respect to its fund or activities as that Government, or, as the case may be, the Central Board may, from time to time, require.

58. Bar of jurisdiction.—No civil court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which an appellate authority constituted under this Act is empowered by or under this Act to determine, and no injunction shall be granted by any court or other authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act.

59. Protection of action taken in good faith.—No suit or other legal proceedings shall lie against the Government or any officer of Government or any member or officer of a Board in respect of

anything which is in good faith done or intended to be done in pursuance of this Act or the rules made thereunder.

60. Overriding effect.—The provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act.

61. Power of Central Government to supersede the Central Board and Joint Boards.—

(1) If at any time the Central Government is of opinion—

(a) that the Central Board or any Joint Board has persistently made default in the performance of the functions imposed on it by or under this Act; or

(b) that circumstances exist which render it necessary in the public interest so to do, the Central Government may, by notification in the Official Gazette, supersede the Central Board or such Joint Board, as the case may be, for such period, not exceeding one year, as may be specified in the notification: Provided that before issuing a notification under this sub-section for the reasons mentioned in clause (a), the Central Government shall give a reasonable opportunity to the Central Board or such Joint Board, as the case may be, to show cause why it should not be superseded and shall consider the explanations and objections, if any, of the Central Board or such Joint Board, as the case may be.

(2) Upon the publication of a notification under sub-section (1) superseding the Central Board or any Joint Board,—

(a) all the members shall, as from the date of supersession vacate their offices as such;

(b) all the powers, functions and duties which may, by or under this Act, be exercised, performed or discharged by the Central Board or such Joint Board shall, until the Central Board or the Joint Board, as the case may be, is reconstituted under sub-section (3) be exercised, performed or discharged by such person or persons as to Central Government may direct;

(c) all property owned or controlled by the Central Board or such Joint Board shall, until the Central Board or the Joint Board, as the case may be, is reconstituted under sub-section (3) vest in the Central Government.

(3) On the expiration of the period of supersession specified in the notification issued under sub-section (1), the Central Government may—

(a) extend the period of supersession for such further term, not exceeding six months, as it may consider necessary; or

(b) reconstitute the Central Board or the Joint Board, as the case may be, by fresh nomination or appointment, as the case may be, and in such case any person who vacated his office under clause (a) of sub-section (2) shall not be deemed disqualified for nomination or appointment: Provided that the Central Government may at any time before the expiration of the period of supersession, whether originally specified under sub-section (1) or as extended under this sub-section, take action under clause (b) of this sub-section.

62. Power of State Government to supersede State Board.—

(1) If at any time the State Government is of opinion—

(a) that the State Board has persistently made default in the performance of the functions imposed on it by or under this Act; or

(b) that circumstances exist which render it necessary in the public interest so to do, the State Government may, by notification in the Official Gazette, supersede the State Board for such period, not exceeding one year, as may be specified in the notification: Provided that before issuing a notification under this sub-section for the reasons mentioned in clause (a), the State Government shall give a reasonable opportunity to the State Board to show cause why it should not be superseded and shall consider the explanations and objections, if any, of the State Board.

(2) Upon the publication of a notification under sub-section (1) superseding the State Board, the provisions of sub-sections (2) and (3) of section 61 shall apply in relation to the supersession of the State Board as they apply in relation to the supersession of the Central Board or a Joint Board by the Central Government.

63. Power of Central Government to make rules.—

(1) The Central Government may, simultaneously with the constitution of the Central Board, make rules in respect of the matters specified in sub-section (2): Provided that when the Central Board has been constituted, no such rule shall be made, varied, amended or repealed without consulting the Board.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) the terms and conditions of service of the members (other than the chairman and member-secretary) of the Central Board under sub-section (8) of section 5;

(b) the intervals and the time and place at which meetings of the Central Board or of any committee thereof constituted under this Act, shall be held and the procedure to be followed at such meetings, including the quorum necessary for the transaction of business under section 8, and under sub-section (2) of section 9;

(c) the fees and allowances to be paid to such members of a committee of the Central Board as are not members of the Board under sub-section (3) of section 9;

1[(d) the manner in which and the purposes for which persons may be associated with the Central Board under sub-section (1) of section 10 and the fees and allowances payable to such persons;]

(e) the terms and conditions of service of the chairman and the member-secretary of the Central Board under sub-section (9) of section 5 and under sub-section (1) of section 12;

(f) conditions subject to which a person may be appointed as a consulting engineer to the Central Board under sub-section (4) of section 12;

(g) the powers and duties to be exercised and performed by the chairman and the member-secretary of the Central Board;

2[\*\*\*]

(j) the form of the report of the Central Board analyst under sub-section (1) of section 22;

(k) the form of the report of the Government analyst under sub-section (3) of section 22; 3[(l) the form in which and the time within which the budget of the Central Board may be prepared and forwarded to the Central Government under section 38;

(ll) the form in which the annual report of the Central Board may be prepared under section 39;]

(m) the form in which the accounts of the Central Board may be maintained under section 40; 4[(mm) the manner in which notice of intention to make a complaint shall be given to the Central Board or officer authorised by it under section 49;]

(n) any other matter relating to the Central Board, including the powers and functions of that Board in relation to Union territories;

(o) any other matter which has to be, or may be, prescribed.

(3) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made, before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, 5[before the expiry of the session immediately following the session or the successive sessions

aforesaid], both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

64. Power of State Government to make rules.—

(1) The State Government may, simultaneously with the constitution of the State Board, make rules to carry out the purposes of this Act in respect of matters not falling within the purview of section 63: Provided that when the State Board has been constituted, no such rule shall be made, varied, amended or repealed without consulting that Board.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) the terms and conditions of service of the members (other than the chairman and the member-secretary) of the State Board under sub-section (8) of section 5;

(b) the time and place of meetings of the State Board or of any committee of that Board constituted under this Act and the procedure to be followed at such meeting, including the quorum necessary for the transaction of business under section 8 and under sub-section (2) of section 9;

(c) the fees and allowances to be paid to such members of a committee of the State Board as are not members of the Board under sub-section (3) of section 9;

(d) the manner in which and the purposes for which persons may be associated with the State Board under sub-section (1) of section 10 1[and the fees and allowances payable to such persons];

(e) the terms and conditions of service of the chairman and the member-secretary of the State Board under sub-section (9) of section 5 and under sub-section (1) of section 12;

(f) the conditions subject to which a person may be appointed as a consulting engineer to the State Board under sub-section (4) of section 12;

(g) the powers and duties to be exercised and discharged by the chairman and the member-secretary of the State Board;

(h) the form of the notice referred to in section 21;

(i) the form of the report of the State Board analyst under sub-section (1) of section 22;

(j) the form of the report of the Government analyst under sub-section (3) of section 22;

(k) the form of application for the consent of the State Board under sub-section (2) of section 25, and the particulars it may contain;

(l) the manner in which inquiry under sub-section (3) of section 25 may be made in respect of an application for obtaining consent of the State Board and the matters to be taken into account in granting or refusing such consent;

(m) the form and manner in which appeals may be filed, the fees payable in respect of such appeals and the procedure to be followed by the appellate authority in disposing of the appeals under sub-section (3) of section 28;

2[(n) the form in which and the time within which the budget of the State Board may be prepared and forwarded to the State Government under section 38;

(nn) the form in which the annual report of the State Board may be prepared under section 39;]

(o) the form in which the accounts of the State Board may be maintained under sub-section (1) of section 40;

3[(oo) the manner in which notice of intention to make a complaint shall be given to the State Board or officer authorised by it under section 49;]

(p) any other matter which has to be, or may be, prescribed.

1. Ins. by Act 19 of 2010, sec. 36 and Sch.

2. Ins. by Act 44 of 1978, sec. 16. tc" 2. Ins. by Act 44 of 1978, sec. 16."

3. Ins. by Act 44 of 1978, sec. 17. tc" 2. Ins. by Act 44 of 1978, sec. 17."

4. Ins. by Act 53 of 1988, sec. 19 (w.e.f. 29-9-1988). tc" 3. Ins. by Act 53 of 1988, sec. 19 (w.e.f. 29-9-1988)."

5. Subs. by Act 53 of 1988, sec. 20, for section 39 (w.e.f. 29-9-1988). tc" 4. Subs. by Act 53 of 1988, sec. 20, for section 39 (w.e.f. 29-9-1988)."

6. Subs. by Act 53 of 1988, sec. 21, for section 41 (w.e.f. 29-9-1988).

7. Subs. by Act 53 of 1988, sec. 22, for "one thousand rupees" (w.e.f. 29-9-1988). tc" 1. Subs. by Act 53 of 1988, sec. 22, for "one thousand rupees" (w.e.f. 29-9-1988)."

8. Subs. by Act 53 of 1988, sec. 23, for "six months" (w.e.f. 29-9-1988). tc" 1. Subs. by Act 53 of 1988, sec. 23, for "six months" (w.e.f. 29-9-1988)."

9. Subs. by Act 53 of 1988, sec. 23, for "six months" (w.e.f. 29-9-1988). tc" 1. Subs. by Act 53 of 1988, sec. 23, for "six months" (w.e.f. 29-9-1988)."

10. Subs. by Act 53 of 1988, sec. 24, for "one year" (w.e.f. 29-9-1988). tc" 2. Subs. by Act 53 of 1988, sec. 24, for "one year" (w.e.f. 29-9-1988)."

11. Ins. by Act 53 of 1988, sec. 25 (w.e.f. 29-9-1988). tc" 3. Ins. by Act 53 of 1988, sec. 25 (w.e.f. 29-9-1988)."

12. Subs. by Act 53 of 1988, sec. 26, for sub-section (1) (w.e.f. 29-9-1988).

13. Subs. by Act 44 of 1978, sec. 20, for clause (d). tc" 1. Subs. by Act 44 of 1978, sec. 20, for clause (d)."

14. Ins. by Act 44 of 1978, sec. 21.

## THE WATER (PREVENTION AND CONTROL OF POLLUTION) RULES, 1975

*[Dated the 27th February, 1975]*

G.S.R. 58(E).--In exercise of the powers conferred by section 63 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) the Central Government after consultation with Central Board for the Prevention and Control of Water Pollution, hereby makes the following rules, namely :-

### CHAPTER I

#### PRELIMINARY

1. (1) These rules may be called -the Water (prevention and Control of Pollution) Rules, 1975. Commence- ment.

(2) They. Shall come into force on the date of their publication of the Official Gazette.

2. In these rules unless the context otherwise requires:

(a)" Act" means the Water (Prevention and Control of Pollution) Act, 1974;

(b)"Chairman" means the Chairman of the Central Board;

(c) "Central Board Laboratory" means a laboratory established or recognized as such under sub-section (3) of section 16;

(d)"Central Water Laboratory" means a laboratory established or specified as such under sub-section (1) of section 51;

(e) "Form" means a form set out in Schedule I;

(f) "Member" means a member of the Central Board and includes the Chairman thereof;

(g) "Member-Secretary" means the Member-Secretary of the Central Board;

(h)"Section" means a section of the Act.

(i)"Schedule" means a schedule appended to these rules;

(j)"Year" means the financial year commencing on the first day of April.

## CHAPTER 2

### TERMS AND CONDITIONS OF SERVICE OF THE MEMBERS OF THE CENTRAL BOARD AND OF COMMITTEES OF CENTRAL BOARD

3. (1) The Chairman shall be paid a fixed monthly salary of Rs3000
- 2) (a) in addition to the salary specified in sub-rule (1), the chairman shall be entitled to city compensatory allowance and house rent allowance as admissible to a Central government servant in terms of Ministry of Finance (Department of Expenditure) O.M No. 2(3)-E. II (B)/64 , dated the 27th November, 1965

Provided that where the Chairman is allotted an accommodation by the Central Government, he shall not be entitled to house rent allowance and shall be required to pay ten per cent of the emoluments drawn by him as house rent or license fee.

3. in respect of journeys undertaken by the Chairman in connection with his duties as Chairman, he shall be entitled to traveling allowance and daily allowance at the rates permissible in the case of a government officer of equivalent rank under the Supplementary Rules of the Central Government:

4. The Central Board shall provide to the Chairman, medical facilities as admissible to an office of the Central Government drawing salary of Rs. 3000/- per mensem.

(3) Notwithstanding anything contained in sub-rules (1) and (2), where a Government servant is appointed as Chairman, the terms and conditions of his Service shall be such as may be specified by the Central Government from time to time.

4. (1) The Member-Secretary shall be paid a monthly pay in the scale of Salaries Rs.2250-125-2500.

(2) (a) in addition to the salary specified in sub-rule (1) the Member-Secretary shall be entitled to city compensatory allowance and house rent allowance as Member-admissible to a Central Government servant in terms of Ministry of Finance Secretary. (Department of Expenditure) O.M. No. 2(3)-E. II (b)/64 , dated the 27th November, 1965:

Provided that where the Member-Secretary is allotted an accommodation by the Central Government he shall not be entitled to house rent allowance and shall be required to pay ten per cent. of the emolument drawn by him as house rent or license fee.

2. in respect of journeys undertaken by the Member-Secretary in connection with his duties as Member-Secretary he shall be entitled to traveling allowance and daily allowance at the rates permissible in the case of a Government Officer of equivalent rank under the Supplementary Rules of the Central Government;

3. the Central Board shall provide to the Member-Secretary, medical facilities as admissible to an officer of the Central Government drawing salary in the scale of Rs. 2250--2500 per mensem.

(d) the other terms and conditions of service of the Member-Secretary including allowances payable to him, shall be, as far as may be, the same as are applicable to a Grade I Officer of corresponding status of the Central Government.

(3) Notwithstanding anything contained in sub-rules (1) and (2) where a Government servant is appointed as Member-Secretary, the terms and conditions of his service shall be such as may be specified by the Central Government from time to time.

5. (1) Non-official members of the Central Board resident in Delhi shall be paid an allowance of rupees seventy five per day for each day of the actual meetings of the Central Board.

(2) Non-official members of the Central Board, not resident in Delhi shall be paid an allowances of rupees seventy five per day (inclusive of daily allowance) for each day of the actual meetings of the Central Board and also traveling allowance at such rate as is admissible to a Grade I officer of the Central Government.



Provided that in case of a member of Parliament who is also a member of the Central Board, the said daily and traveling allowance will be admissible when the Parliament is not in session and on production of a certificate by the member that he has not drawn any such allowance for the same journey and halts from any other Government source,

6. A member of a committee of the Central Board shall be paid in respect of meeting of the committee traveling and daily allowance, if he is a non-official at the rates specified in rule 5. as If he were a member of the Central Board and a Government servant, at the rates, admissible under the relevant rules of the respective government under whom he is serving.

### **CHAPTER 3**

#### **POWERS AND DUTIES OF THE CHAIRMAN AND MEMBER SECRETARY AND APPOINTMENTS OF OFFICERS' AND EMPLOYEES**

7. (1) The Chairman shall have overall control over the day-to-day activities of the of the Central Board,

(2) (i) The Chairman may undertake tours within India for carrying out the functions of the Central Board:

Provided that he shall keep the Central Government (Secretary to the Menial)' of Works arid focusing) and the Central Board, infonned of his tours.

(ii) The Chairman may, with the prior approval 01 Government, visit any country outside India.

**3. \* \* \* \*1**

(4). In the matter of acceptance to tenders, the Chairman shall have full powers subject to the concurrence of the Central Board:

Provided that no such occurrence is required for acceptance of tenders upto an amount of rupees one thousand in each case.

(5) Subject to overall sanctioned budget provision, the Chairman shall have full powers to administratively approve and sanction all estimates, -

8. The Central Board may create such posts as it considers necessary for the efficient Performance of its functions an may abolish post, so created provided that for the creation of, and appointment to, posts, the maximum of the scale of which is above Rs. 1,600 per month, the Central Board shall obtain prior sanction of the Central Government.

7.The Member-Secretary shall be subordinate to the Chairman and shall, subject to the control of the Chairman, exercises the following powers, namely:

(1) The Member-Secretary shall be in charge of all the confidential papers of the Board and shall be responsible for preserving them.

(2) The Member-Secretary shall produce such papers whenever so directed by the Chairman or by the Central Board.

(3) The Member-Secretary shall make available to any member of the Central Board, for his perusal, any record of the Board.

(4) The Member-Secretary shall be entitled to call for the services of any officer or employee of the Central Board, and files, papers and documents for study from any

department of the Board, as also to carry out inspection of any department at any time including checking of accounts, vouchers, bills and others records and stores pertaining to the Board or regional offices there under.

(5) The Member-Secretary may withhold any payment:

Provided that as soon as may be and in any case not later than three month after such withholding of payment the matter shall be placed before the Central Board for its approval:

(6) The Member-Secretary shall make all arrangements for holding meetings of the Central Board and meetings of the Committees constituted by the Central Board.

(7) All orders or instructions to be issued by the Central Board shall be over the signature of the Member-Secretary or of any other officer authorized in wis behalf by the Chairman.

(8) The Member-Secretary shall authorize, sanction or pass all payments against allotments made or estimates sanctioned.

(9) The Member-Secretary shall write and maintain confidential reports of all Class I and Class II officers of the Central Board and shall get them countersigned by the Chairman.

(10) The Member-Secretary shall countersign the confidential relax>rats of all the Class III employees of the Central Board.

(11) (i) The Member-Secretary shall sanction the annual increments of the Class I and Class II officers of the Central Board:

Provided that the increment of Class I and Class II officers shan be withheld only with the approval of the Chairman.

(ii) The annual increment of other employees of the Central Board not referred to in clause (i) shall be sanctioned by officers authorized in this behalf by the Member - Secretary.

(12) The Member-Secretary shall have full powers for according technical sanction to all estimates.

(13) The Member-Secretary shall exercise such other powers and perform such other functions as may re delegated to him from time to time either by the Board or by the Chairman.

#### **CHAPTER 4**

##### **TEMPORARY ASSOCIATION OF PERSONS WITH CENTRAL BOARD**

10. (1) The Central Board may invite any persons, whose assistance or advice it considers useful to obtain in performing any of its functions, to participate in the deliberations of any of its meetings.

(2) If the person associated With the Board under sub-rule (1) happens to be a non-official, resident in Delhi, he shall be entitled to get an allowance of rupees seventy five per day for each day of actual meeting of the Central Board in which he is so associated.

(3) If such person is non-resident in Delhi, he shall be entitled to get an allowance of rupees seventy-five per day (inclusive of daily allowance) for each day of actual meeting of the Central Board in which he is so associated and also to trcivelling allowance at such rates as admissible to a Grade I Officer of the Central Government.

(4) Notwithstanding anything in sub-rule (2) and (3), if such person is a Government servant or an employee in a Government undertaking he shall be entitled to traveling and daily allowances only at the rates admissible under the relevant rules applicable to him.

## CHAPTER 5

### CONSULTING ENGINEER

11. For the purpose of assisting the Central Board in the performance or its functions, the Board may appoint a consulting engineer to the Board for a specified period not exceeding four months:

Provided that the Board may, with the prior approval of the Central Government extend the period of the appointment from time to time:

Provided further that if at the time of the initial appointment the Central Board had reason to believe that the services of the consulting engineer would be required for a period of more than four months, "the Central Board shall not make the appointment without the prior approval of the Central Government.

12. Notwithstanding the appointment of a consulting engineer for a specified period under rule 11, the Central Board shall have the right to terminate the services of the consulting engineer before the expiry of the specified period, if, in the opinion of the Board, the consulting engineer is not discharging his duties properly or to the satisfaction of the Board or such a course of action is necessary in the public interest.

Provided that the services of a consulting engineer shall not be terminated under this rule by the Central Board except after giving him a reasonable opportunity of showing cause against the proposed action.

13. The Central Board may pay the consulting engineer suitable emoluments or fees or fees depending on the nature of work, and the experience of the consulting engineer:

Provided that the Central Board shall not appoint any person as consulting engineer without the prior approval of the Central Government if the emoluments or fees payable to him exceeds rupees two thousand per month.

14. The consulting engineer may undertake tours within the country for the performance of the duties entrusted to him by the Central Board and in respect of such tours he shall be entitled to traveling and daily allowances as admissible to a Grade I officer of the Central Government. He shall, however, get the prior approval of the Member-Secretary to his tour programme.

15. The consulting engineer shall not disclose any information either given by the Central Board or obtained during the performance of the duties assigned to him either from the Central Board or otherwise, to any person other than the Central Board without the written permission of the Board.

16. The consulting engineer shall discharge such duties and perform such functions as are assigned to him, by the Central Board and it will be his duty to advise the Board on all technical matters referred to him by the Board.

## CHAPTER 6

### BUDGET OF THE CENTRAL BOARD

17. (1) The budget in respect of the year next ensuing showing the estimates receipts and expenditure of the Central Board shall be prepared in Forms I, II, III and IV and submitted to the Central Government.

(2) The estimated receipts and expenditure shall be accompanied by the revised budget estimates for the current year.

(3) The budget shall, as far as may be, based ,on the account heads specified in Schedule II.

18. (J) The budget estimates as compiled in accordance with rule 17 shall be placed by the Member-Secretary before the Central Board by the 5th October each year for approval

(2) After approval of the budget estimates by the Central Board, four copies of the final budget proposals incorporating therein such modifications as have been decided upon by the Central Board shall be submitted to the Central Government by the 15th October each year.

19. (1) The estimates of expenditure on fixed establishment as well as fixed monthly recurring charges on account of rent, allowances. etc., shall provide for the gross sanctioned pay without deductions of any kind.

(2) To the estimates referred to in sub-rule (1) shall be added a suitable provision for leave salary based on past experience with due regard to the intention of the members of the staff in regard to leave as far as the same can be ascertained.

(3) If experience indicates that the total estimate for fixed charges referred to in sub-rules (1) and (2) is not likely to be fully utilized, a suitable lump deduction shall be made from the total amount estimated.

20. No expenditure which is not covered by a provision in the sanctioned budget estimates, or which is likely to be in excess over the amount provided under any head, shall be incurred by the Central Board without provision being made by re-appropriation from some other head under which savings are firmly established and available.

21. The Central Board shall incur expenditure out of the funds received by it in accordance with the instructions laid down under the General Financial Rules of the Central Government and other instructions issued by that Government from time to time.

22. The fund of the Central Board shall be operated by the Member Secretary of the Central Board or in his absence by any officer of the Central Board who may, subject to the approval of the Central Government, be so empowered by the Central Board.

23. Nothing in this Chapter shall apply to a budget already finalized before the commencement of these rules.

## CHAPTER 7

### ANNUAL REPORT OF THE CENTRAL BOARD

24. The annual report in respect of the year last ended giving a true and full account of the activities of the Central Board during the previous financial year shall contain the particulars specified in the I [Schedule III].

## CHAPTER 8

### ACCOUNT OF THE CENTRAL BOARD

25. The annual statement of accounts of the Central Board shall be in Forms V to IX.

## CHAPTER 9

### REPORT OF CENTRAL BOARD ANALYST AND THE QUALIFICATIONS OF ANALYSTS

26. When a sample of any water, sewage or trade effluent has been sent for analysis to a laboratory established or recognized by the Central Board, the Central Board analyst appointed under sub-section (3) of section 53 shall analyse the sample and submit to the Central Board a report in triplicate in Form X of the result of such analysis.

26A. Persons possessing the following qualifications are eligible for appointment as Government analysts or as Board analysts under sub-section (1) or sub-section (3), as the case may be, of section 53, namely:

*Essential* :- (i) M.Sc. Degree in Chemistry or equivalent or Bachelor Degree in Chemical Engineering or Bio-chemical Engineering; and

(ii) 10 years' experience in analysis of water, sewage or industrial wastes in teaching, research or Government Laboratory.

*Desirable*:- (i) Doctorate Degree in- Chemistry or Bio-chemistry or Master's Degree in Chemical Engineering or Bio-chemical Engineering; (ii)

Evidence of published papers in the field.

## CHAPTER 10

### CENTRAL WATER LABORATORY

(27) The Central Water Laboratory shall cause to be analyzed any samples of water, sewage or trade effluent received by it from any officer authorized by the Central Board for the purpose, and the findings shall be recorded in triplicate in Form XI.

(28) The fees payable in respect of each report of the Central Water Laboratory on any analysis or test mentioned in column (2) of Schedule IV shall be at the rates specified in the corresponding entry in column (3) thereof.

## CHAPTER 11

### POWERS AND FUNCTIONS OF THE CENTRAL BOARD IN RELATION TO UNION

#### TERRITORIES

(29) The Central Board shall act as State as State Board for Union territories under sub-section (4) of section 4.

(30) The Central Board or any officer empowered by it in this behalf shall have power to take for the purpose of analysis samples of water from any stream or well or samples of sewage or trade effluent which is passing from any ,plant or vessel or from or over any pace Into any such stream or well in any Union territory .

(31) A notice under clause (a) of sub-section (3) of section 21 shall, in. case of a Union territory, be in Form XII.

(32) An application for obtaining the consent of the Central Board for establishing or taking any steps to establish any industry, operation or process or any treatment and disposal system or any extension or addition thereto, which is likely to discharge sewage or trade effluent into 11 stream or well or sewer or on land (such discharge being hereinafter in this Rule referred to as discharge of sewage); or for bringing into use any new or altered outlet for the discharge of sewage or beginning to make any new discharge of sewage under section 25 or for continuing an existing discharge of sewage under section 26 shall be made to the Central Board in Form XIII.

(33) (1) On receipt of an application. for consent under section 25 or section 26, the Central Board may depute any of its Officers, accompanied by as many assistants as may be necessary, to visit to the premises of the applicant; to which such application relates, for the purpose of verifying the correctness or otherwise consent. of the particulars furnished in the application or for obtaining such further particulars or information as such officer may consider necessary. Such officer may for that purpose inspect any place where water or sewage or trade effluent is discharged by the applicant, or treatment plants, purification works or disposal systems of the applicant and may require the applicant to furnish to him any plans, specifications and other data relating to such treatment plants, purification works or disposal systems or any part thereof, that he considers necessary.

(2) Such officer shall before visiting any premises of the applicant for the purpose of inspection under sub-rule (1) above, give notice to the applicant of his intention to do so in Form XIV. The applicant shall furnish to such officer all facilities that such officer-may legitimately require for the purpose.

(3) An officer of the Central Board may, before or after carrying out an inspection under sub-rule (1) above, require the applicant to furnish to him. orally or in writing such additional information or clarification, or to produce before him such documents, as he may consider necessary for the purpose of investigation of the application and may, for that purpose, summon the applicant or his authorized agent to the office of the Central Board.

34. (1) any direction issued under section 33A shall be in writing.

(2) The direction shall specify the nature of action to be taken and the lime within which it shall be complied with by the person, officer or the authority to whom such direction is given.

(3) The person, officer or authority to whom any direction is sought to be issued shall be served with a copy of the proposed direction and shall be given all opportunity of not less than fifteen days from the date of service of a notice to file with an officer designated in this behalf the objections, if any, to the issue of the proposed direction.

(4) Where the proposed direction is for tire stoppage or regulation of electricity or water or any other services affecting the carrying on an industry, operation or process and is sought to be issue to an officer or an authority, a copy of the proposed direction shall also be endorsed to the occupier of the industry, operation or process, as the case may be, and objections, if any, filed by the occupier with an officer designed in this behalf shall be dealt with in accordance with the procedures under sub-rules (3) and (5) of this rule:

Provided that no opportunity of being heard shall be given to the occupier, if he had already been heard earlier and the proposed direction referred to in sub-rule (3) above for the stoppage or regulation of electricity or water or any other service was the resultant decision of the Central Board after such earlier hearing.

(5) The Central Board shall within a period of 45 days from the date of receipt of objections, if any, or from the date upto which an opportunity is given to the person, officer or authority to file objections whichever is earlier, after considering the objections, if any, sought to be directed and for reasons to be recorded in writing, confirm, modify or decide not to issue the proposed direction.

(6) In a case where the Central Board is of the opinion that in view of the likelihood of the grave injury to the environment it is not expedient to provide an opportunity to file objections against the proposed direction, it may, for reasons to be recorded in writing, issue directions without providing such an opportunity

(7) Every notice or direction required to be issued under this rule shall be deemed to be duly served :-

a. Where the person to be served is a company, if the document is addressed in the name of the company and its registered office or at its principal office or place of business and is either-

(i) sent by registered post; or

(ii) delivered at its registered office or at the principal office or place or business;

(b) Where the person to be served is an officer serving Government, if the document is addressed to the person and a copy thereof is endorsed to his Head of the Department and also to the Secretary to the Government as the case may be, in charge of the Department in which for the time being the business relating to the Department in which the officer is employed is transacted and is- either :- .

(i) sent by registered post, or

(ii) is given or rendered to him;

(c) in any other case, if the document is addressed to the person to be served and-

(i) is given or tendered to him, or

(ii) if such persons cannot be found, is affixed on some conspicuous part of his last known place of residence or business or is given or tendered to some adult members of his family or is affixed on some conspicuous part or me land or building, if any, to which it relates, or

(iii) is sent by registered post to that person.

*Explanation :-* For the purpose of this sub-rule :-

(a) "company" means by body corporate and includes a firm or other association of individuals;

(b) "a servant" is not a member of the family.





**FORM III**  
**CENTRAL POLLUTION CONTROL BOARD**  
**NOMINAL ROLLS**  
*(See rule 17)*

Name and designation	Pay	Dearness Allowance	City Compensatory	House rent allowance	Over time allowance	Children educational	Leave travel concession	Other allowance	Total
1	2	3	4	5	6	7	8	9	10
<b>TOTAL</b>									

**FORM IV**  
**CENTRAL POLLUTION CONTROL BOARD**  
**ABSTRACT NOMINAL ROLLS**  
*(See rule 17)*

Actual sanctioned strength as on 1 <sup>st</sup> march, 19	Particulars of posts	Sanctioned Budget Grant 19 - 19		Revised estimates		Budget estimates 19 -19		Explanation for the difference between sanctioned budget Grant Revised estimates and Budget estimates
		No of posts included	Pay and allowance	No of posts included	Pay and allowance	No of posts included	Pay and allowance	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
	<b>I. Officers</b> <b>(a) Posts filled</b> <b>(b) Posts vacant</b>							
	<b>Total Officers</b>							
	<b>II. Establishment</b> <b>(a) Posts filled</b> <b>(b) Posts vacant</b>							
	<b>Total II Establishment</b>							
	<b>III Class IV</b> <b>(a) Posts filled</b> <b>(b) Posts vacant</b>							
	<b>Total III Class IV</b>							
	<b>GRAND TOTAL- I, II and III</b>							

**FORM V**  
**CENTRAL POLLUTION CONTROL BOARD**  
**Receipt and payment for the year ended**  
*(See rule 25)*

Previous year	Receipts	Previous year	Payment
(1)	(2)	(3)	(4)
Opening Balance--- i.Grants received... (a)from Govt..... (b)from other agencies.. II.Fees..... III.Fines and Forfeitures IV.Interest of investments V.Miscellaneous Receipt VI.Miscellaneous Advance VII.Deposits TOTAL		1. Capital Expenditure..... (i)Works..... (ii)Fixed ..... Assets..... (iii)Other Assets..... (a)Laboratory equipment (b)Vehicle ©Furniture and Fixtures (d)Scientific Instruments and (e)Tools and Plant	

		<p>2.RevenueExpenditure.....</p> <p>(A)Administrative.....</p> <p>(i)pay of Officer.....</p> <p>(ii)Pay of Establishment.....</p> <p>(iii)Allowance and Honoraria.....</p> <p>(iv)Leave salary and pension contributions.....</p> <p>(v)Contingent expenditure.....</p> <p>Deduct recoveries.....</p> <p>(B)(i)Board Laboratory</p> <p>(ii)Charges to be paid to the Central water Lab.</p> <p>©Running and maintenance of vehicles.....</p> <p>(D)Maintenance and Repairs</p> <p>(i)Building and land Drainage including rents if any.....</p> <p>(ii)Works.....</p> <p>(iii)Furniture and Fixtures.....</p> <p>(iv)Scientific Instruments and Office Appliance and repairs</p> <p>(v)Tools and Plants.....</p> <p>(vi)Temporary work including maintenance and repairs</p> <p>(E)Fees to Consultants and Specialists.....</p> <p>(F)Law charges.....</p> <p>(G)Miscellaneous.....</p> <p>(H)Fees for Audits.....</p>
		<p>3.Purchases.....</p> <p>4.Miscellaneous.....</p> <p>5.Advances.....</p> <p>6.Deposits.....</p> <p>Total.....</p>
<p><b>Accounts Officer</b></p>	<p><b>Member Secretary</b></p>	<p><b>Chairman</b></p>

**FORM VI**  
**CENTRAL POLLUTION CONTROL BOARD**  
**Annual Statement of Account**  
**Income and Expenditure account for the year ended 31<sup>st</sup> march,19**  
**(See rule 25)**

Previous year	Expenditure Details	Total of Sub- head	Total of major head	Previous year	Income details	Total of Sub-head	Total of major head
1	2	3	4	5	6	7	8
Rs.		Rs.	Rs.	Rs.		Rs.	Rs.
	<p>To</p> <p>REVENUE EXPENDITURE</p> <p>(A)Administrative:</p> <p>(i)Pay of Officers</p> <p>(ii)Pay of establishment</p> <p>(iii)Allowances &amp; Honaria</p> <p>(iv)Leave salary and Pension Contributions</p> <p>(v)Board's contributions to the staff</p> <p>Provident Fund</p> <p>(vi)Contingent expenditure</p> <p>Deduct</p> <p>Recoveries</p>				<p>By</p> <p>(i)GRANTS RECEIVED</p> <p>(a) From Govt.</p> <p>(b) From other agencies</p> <p><b>Total:</b></p> <p><b>Less:</b></p> <p>Amount utilized for Capital expenditure net grant available for Revenue expenditure.</p>		
	<p>(B)Running expenses of laboratories:</p> <p>i)main Laboratory</p> <p>ii)Payments to be made to Central water Laboratory</p> <p>© Running and Maintenance of Vehicle</p>				<p>(ii) Fees:-</p> <p>(iii) Service Rental charges</p> <p>(iv)Fines and Forfeitures</p> <p>(v)Interest on investments</p> <p>(vi)Miscellaneous Receipts</p> <p>(vii)Excess of Expenditure over income</p>		

(D)Maintenance and Repairs: (i)Building and land Drainage (ii)Works (iii)Furniture and Fixtures (iv)Scientific instruments and office appliances. (E)Temporary Works(Including maintenance and repairs) (F)Fees to consultant and specialist (G)law charges (H)Depreciation: (i)Buildings (ii)Laboratory equipments (iii)vehicles (iv)Furniture and Fixtures (v)Scientific Instruments and office appliance (vi)Tools and Plants (I)Miscellaneous: (i)Write off of closes (as per details in the statement attached) (ii)Other miscellaneous expenditure. (J)Fees and Audit (k)Excess of income over expenditure. TOTAL					
<b>Accounts Officer Member Secretary Chairman</b>					

**FORM VII**  
**CENTRAL POLLUTION CONTROL BOARD**  
**Annual Statement of Account**  
**Balance Sheet as at 31<sup>st</sup> march,19.....)**

(See rule 25)

Capital and liabilities				Property and Assets			
Previous year	Details	Total of sub-head	Total of major head	Previous year	Details	Total of sub-head	Total of major head
1	2	3	4	5	6	7	8
	i)Grants <sup>received</sup> from Govt. for capital expenditure. (a)Amount utilized upto 31 <sup>st</sup> March 19..... (b)Unutilized balance on 31 <sup>st</sup> March 19..... (ii)Grant from agencies for other capital expenditure (i) Amount utilized upto 31 <sup>st</sup> March 19..... (ii) Unutilized balance on 31 <sup>st</sup> March 19..... (iii)Value of land provided by Govt.(per contra) (A) capital Receipts- (B) (i)Deposits received for works from outside bodies- Expenditure- (C) Amounts due- (i)Purchasers (ii)Other (D) Excess of income over expenditure- (i)upto 31 <sup>st</sup> march 19.... (ii)Add for the year (iii)Deduct –Excess of expenditure over income. (E) Capital Fund				1. Works- (As per Form VIII) 2.Fixed Assets (As per Form IX) (a)value of land provided by Govt.(at cost) (b)Buildings- Balance as per last Balance sheet Additions during the year Total----- Less; Depreciation during the year Total----- 3.Other Assets-(As per Form IX) (a)Laboratory Equipment as per last balance sheet –additions during the year Total----- Less: Depreciation during the year Total: (b)Vehicles as per last balance sheet Additions during the year Total----- Less: Depreciation during the year Total: ©Furniture and Fixtures. As per last balance Sheet. Additions during the year Total----- Less:		

		<p>Depreciation during the year                  Total:                  (d)Scientific Instruments and Office Appliance-                  As per last balance Sheet.                  Additions during the year                  Total-----                  (e)Tools and Plants-                  As per last balance Sheet.                  Additions during the year                  Total-----                  Less:                  Depreciation during the year                  Total-----                  4. Sundry Debtors-                  (i) Amounts due from outside bodies. For expenditure incurred-                  Expenditure                  Less amount received</p>
<p>TOTAL.....</p>		<p>(ii)Other Sundry Debtors                  5. Advances-                  a)Miscellaneous Advance                  b)Other amount recoverable.                  Cash-                  a)Notice/Short Term Deposits                  b)cash at Bank                  c)cash in hand                  d)Cash in transit-----                  -                  TOTAL.....                  ..</p>
<p><b>Accounts Officer</b></p>	<p><b>Member-Secretary</b></p>	<p><b>Chairman</b></p>

**FORM VIII**  
**CENTRAL POLLUTION CONTROL BOARD**  
**Annual Statement of Account**  
**Balance Sheet as on 31<sup>st</sup> march,19.....)**

**(See rule 25)**

SI No	Name of Work	Upto March 19			During the year 19			Upto 31 <sup>st</sup> march 19		
		Direct expenditure	Overhead Charges	Total Expenditure	Direct expenditure	Overhead Charges	Total Expenditure	Direct expenditure	Overhead Charges	Total Expenditure
TOTAL										
Accounts Officer					Member Secretary			Chairman		



**FORM IX**  
**CENTRAL POLLUTION CONTROL BOARD**

**Annual Statement of Account**

Fixed Assets as on 31<sup>st</sup> March, 19 (Item 2 Assets of the balance Sheet)

Other Assets as on 31<sup>st</sup> March, 19 (Item 3 Assets of the balance Sheet)

**(See rule 25)**

Sl. No.	Particulars	Balance as on 31 <sup>st</sup> March 19	Additions during the year	Total	Depredation during the year	Sales of write off during the year	Balance as on 31 <sup>st</sup> March 19	Cumulative Depreciation as on 31 <sup>st</sup> March 19

**Accounts Officer**

**Member Secretary**

**Chairman**

**FORM X**  
**REPORT BY THE CENTRAL BOARD ANALYST**

(See Rule 26 )

**Report No.**.....

**Dated the** .....

I hereby certify that I. (I) .....Central Board analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act. 1974 (6 of 1974) received on the (II) .....day of..... 19..... from (III)..... a sample of..... for analysis. The sample was in a condition fit for analysis reported below;

I further certify that I have analyzed the aforementioned sample on (IV) .....and declare the result of the analysis reported below:

I further certify that I have analyzed the aforementioned sample on (IV).....and declare the result of the analysis to be as follows: -

(V).....

The condition of the seals fastening and container on receipt was as follows:-

.....

signed this..... day of .....19.....

**(Signature)**  
**Central Board analyst.**

**Address**.....

**To**  
.....

(I) Here write the full name of the Central Board analyst.

(II) Here write the date of receipt of the sample.

(III) Here write the name of the Board or person or body of person or officer from whom the sample was received.

(IV) Here write the date of analysis.

(V) Here write the details of the analysis and refer to the method or analysis. If the space is not adequate the details may be given on a separate sheet of paper.

**FORM XI**  
**REPORT BY THE GOVERNMENT ANALYST**  
*(See rule 27)*

Report No .....

Dated the ..... 19

I hereby certify that I. (i) .....Government analyst duly appointed under sub-section (1) of section 53 of the Water (Prevention and Control of Pollution) Act. 1974 (6 of 1974) received on the (ii).....day of 19.....from (III) .....a sample of for analysis. The sample was in a condition for analysis reported below:

I further certify that I have analyzed the aforementioned sample. on (IV) .....and declare the result of the analysis to be as follows :-

(V)  
.....  
.....

The condition of the seals, fastening and container on receipt was as follows:-

.....  
.....

signed this..... day of..... 19.....

**(Signature)**  
**(Government analyst)**

**Address**

**To**

-----

-----

-----

- (i) Here write the full name of the Government analyst.
- (II) Here write the date of receipt of the sample.
- (III) Here write the name of the Board or person or body of persons or officer from whom the sample was received.
- (IV) Here write the date of analysis.
- (V) Here write the details of the analysis and refer to the method of analysis. If the space is not adequate and details may be given on a separate sheet of paper.

**FORM XII**

**CENTRAL POLLUTION CONTROL BOARD**

**Notice or intention to have sample analysed**

*(See Rule 31)*

To  
 -----  
 -----

Take notice that it is intended to have analysed the sample of water/sewage effluent/trade effluent which is being taken today the.....day of .....-19..... from (I)

Name and designation of the person who takes the sample

(I) Here specify the stream, well, plant, vessel or place from where the sample is taken.

To  
 .....  
 .....

**FORM XIII**

Application for consent for establishing or taking any Steps for establishment of Industry operation process or any treatment disposal system for discharge. continuation of discharge under section 25 or section 26 of the Water (Pollution and Control of Pollution) Act. 1974.

**(See Rule 32)**

From

Date

.....

.....

**To**

**The Member Secretary.**

**Central Pollution Control Board.**

**Sir ;**

I/We hereby apply for Consent/Renewal of Consent under section 25 of the Water (Prevention and Control of Pollution) Act. 1974 (6 of 1974) for establishing or taking any steps for establishment of Industry/operation process or any treatment/disposal system to bring into use any new/alterd outlet/or discharge of \*sewage/trade effluent\* to continue to discharge\* sewage/trade effluent\* from land/premises owned by

The other relevant details are below :-

(i) Full Name of the applicant .....

(j) Nationality of the applicant- .....

(k) (a) Individual

(h) Proprietary concern

(i) Partnerships firm

(whether registered or unregistered)

(d) Joint family concern

(c) Private Limited Company

a. Public Limited Company

b. Government Company

(d) State Government

(e) Central Government

5. Union Territory

(d) Foreign Company

(e) if a foreign company the details of registration. incorporation. etc,

(f) Any other Association or Body:

(4) Name , Address and Telephone Nos. of Applicant (the full list of individuals partners. persons. Chairman (full-time or part-time) Managing Directors. Managing Partners

Directors (Full time or part-time) other kinds of office bearers arc to be furnished with their period of tenure in the respective office with telephone Nos. and address).

(5) Address of the Industry :

(Survey No.. Khasra No.. location as per the revenue records. Village Firka. Tehsil District. Police Station or SHO jurisdiction of the First-Class Magistrate ).

(c) Detail of commissioning. etc. :-

a. Approximate date of proposed commissioning of work.

b. Exceed date of production :

(c)

(c) Total number of employee expected to employed.

(d) Details of license if any obtained under the provisions of Industrial Development Regulations Act. 1951.

(e) Name of the parson authorized to sign this form (the original authorization except in the case or individual proprietary concern is to enclosed).

(f) (a) attach the list of raw materials and chemicals used per month.

(b) License Annual Capacity or the Factorj/Industry.

11. State daily quantity of water in kilolitres utilized and its source (domestic industrial process boiler Cooling others).

12.(a) State the daily maximum quantity of effluents quantity and mode of disposal.

(sewer or drains or river). Also attach analysis report of the effluents. Type of effluent quantity in kilolitres. Mode of disposal.

a. Domestic

(c) Industrial.

(c) Quality or effluent currently being the discharged or expected to be discharged

(d) What monitoring arrangement is currently there or proposed.

13. Slate whether you have any treatment plant for industrial, domestic or combined effluents.

Yes/No

If yes. attach the description of the process of treatment in brief. Attach information on the quality of treated effluent vis-à-vis the standards.

14. State details of sold wastes generated in the process or during waste treatment.

Description Quantity Method Method of disposal

15. I/We further declare that the information furnished above is correct to the rest of my/our knowledge.

(c) I/We hereby submit that in case of change either of the point of discharge or the quantity of discharge or its quality. a fresh application for CONSENT shall be made and until such CONSENT is granted no change shall re made.

(d) I/We hereby agree to submit to the Central Board an application for renewal of consent one month in advance of the date of expiry of the consented period for outlet/discharge if to be continued thereafter.

(e) I/We undertake to furnish any other information within one month of its being called by the Central Board,

19. I/We enclose herewith cash receipt No./bank draft No.....  
dated.....for Rs ..... (Rupees..... )

in favour of the Central Pollution Control Board. New Delhi. .as fees payable under section 25 of the Act.

**Yours faithfully**

**Signature of the applicant**

**Note: \* Strike out which is not relevant**

FORM XIV

CENTRAL POLLUTION CONTROL BOARD NOTICE OF INSPECTION

[See Rule 33(2)]

Chairman

Member Secretary

Sri

Sri.....

.....

No.....

Dated.....

To

.....  
.....

TAKE NOTICE that for the purpose of enquiry under sections 25/26 the following officers of the Central Board namely :-

(3) Shri.....

(4) Shri.....

(5) Shri.....

and the persons authorized by the Board to assist them shall inspect the-

- e. Water Works
- f. Sewage Works
- g. Waste treatment Plant
- h. \factory
- i. Disposal system

(4) Any other parts thereof or pertaining thereto under management/control on date(s)..... between.....hours when all facilities requested by them for such inspection should be made available to them on the site. Take Notice that refusal or denial to above stated demand made under the functions of the Central Board shall amoW1t to obstruction punishable under section 42 of the Act.

**By order of the Board.**  
**Member-Secretary.**

**Copy to;- 1.....**  
**2.....**



**SCHEDULE II**  
**BUDGET AND ACCOUNT**  
**HEADS [(See Rule 17(3))]**  
**ADMINISTRATION**

**Heads of Accounts (Expenditure)**

- (1) Salaries.
- (2) Wages.
- (3) Travel Expenses.
- (4) Office Expenses.
  - (a) Furniture. (b) Postage
  - (c) Office Machines/Equipment (d) liveries
  - (e) Hot and cold weather charges (f) Telephones
  - (g) Electricity and Water charges (h) Stationery (i) Printing
  - (j) Staff car and other vehicles
  - (k) Other items.
- (5) Fee and Honoraria.
- (6) Payment for professional and special services.
- (7) Rents, Rates and Taxes/Royalty.
- (8) Publications.
- (9) Advertising Sales and Publicity Expenses.
- (10) Grants in aid/Contributions/Subsidies.
- (11) Hospitality Expenses/Sumptuary Allowances etc.
- (12) Pensions/Gratitudes.
- (13) Write off/Losses.
- (14) Suspense.

5. Expenses in connection with tile setting up and maintenance or the Board Laboratory
16. Other charges (A residuary head, this will also include rewards and prizes).

**Heads of Account (Receipts)**

1. Payments by Central Government. .
2. Fees
3. Fines and other receipts.

**[SCHEDULE III]***(See Rule 24)***CENTRAL POLLUTION CONTROL BOARD ANNUAL REPORT FOR THE  
FINANCIAL YEAR****APRIL 19... TO MARCH 31, 19...**

CHAPTER-I	Introduction
CHAPTER-2	Constitution of the Board including changes therein.
CHAPTER-3	Meetings of the Board with major decisions taken therein.
CHAPTER-4	Committees constituted by the Board and their activities.
CHAPTER-5	Monitoring Network for air, water and-soil quality.
CHAPTER-6	Present Slate of environment environmental problems and counter measures.
CHAPTER-7	Environmental Research.
CHAPTER-8	Environmental Training.
CHAPTER-9	Environmental Awareness and Public Participation.
CHAPTER-10	Environmental Standards including time schedule for their enforcement
CHAPTER-II.1	Prosecutions launched. and convictions secured for environmental pollution control.
CHAPTER-II.2	Directions given for closure of polluting industrial units.
CHAPTER-12	Finance and accounts of the Board.
CHAPTER-13	Annual Plan of the following year.
CHAPTER-14	Any other important matter dealt with by the Central Board.

**ANNEXURES**

1. Members of the Board. 2. Organization Chart.
3. Staff Strength including recruitment. 4. Publications.
- e. Training Courses/Seminars/Workshops organized or attended.
- f. Consents to establish industries, operations & processes-issued/refused.
- g. Consents to operate industries operations & process- issued/refused.

**[No.2-200]3/4!91-C.P.W.]****MUKUN SANWAL, Jt. Secy.**

**SCHEDULE IV****(See Rule 28)****Rates of fees payable in respect of a report of the Central water Laboratory**

SI No.	Nature of analysis	Rates of fees
1.Chemical Analysis of Water (a) Dissolved solids ( at 103° - 105°c) P- alkalinity , as CaCO <sub>3</sub> M- alkalinity , as CaCO <sub>3</sub> Total hardness, as CaCO <sub>3</sub> Alkaline hardness, as CaCO <sub>3</sub> Non Alkaline hardness, as CaCO <sub>3</sub> calcium as Ca Magnesium as Mg Chlorides as Cl Sulphate as SO <sub>4</sub> Turbidity Units P H Appearance and colour in Units (visual)		Rs. 56/- (for all the tests)

<p>(b) Dissolved solids ( at 103°- 105°c)</p> <p>P- alkalinity , as CaCO<sub>3</sub></p> <p>M- alkalinity , as CaCO<sub>3</sub></p> <p>Total hardness, as CaCO<sub>3</sub></p> <p>Alkaline hardness, as CaCO<sub>3</sub></p> <p>Non Alkaline hardness, as CaCO<sub>3</sub></p> <p>calcium as Ca</p> <p>Magnesium as Mg</p> <p>Sodium as Na</p> <p>Potassium as K</p> <p>Iron as Fe</p> <p>Manganese as Mn</p> <p>Chlorides as Cl</p> <p>Sulphate as SO<sub>4</sub></p> <p>Flurides as F</p> <p>Nitrate as N</p> <p>Phosphate as PO<sub>4</sub></p> <p>Turbidity Units</p> <p>Turbidity Units</p> <p>PH</p> <p>Appearance and colour in Units (visual)</p>	<p>Rs. 100/- (For all the tests)</p>
---	--------------------------------------

<p>(c) Dissolved solids  P- alkalinity , as  <math>\text{CaCO}_3</math>  M- alkalinity , as  <math>\text{CaCO}_3</math>  Free -alkalinity , as <math>\text{CaCO}_3</math>  Total hardness, as <math>\text{CaCO}_3</math>  Alkaline hardness, as <math>\text{CaCO}_3</math>  Non Alkaline hardness, as  <math>\text{CaCO}_3</math>  calcium as Ca  Magnesium as Mg  Sodium as Na  Potassium as K  Iron as Fe  Manganese as Mn  Chlorides as Cl  Sulphate as <math>\text{SO}_4</math>  Fluorides as F  Nitrate as N  Phosphate as <math>\text{PO}_4</math>  Silica as <math>\text{SiO}_2</math>  Turbidity Units  PH  Langelier Index  Conductivity micromhos/cm  Appearance and colour(visual)  Probable composition of residue</p> <table border="0" data-bbox="251 1849 812 2083"> <tr> <td><math>\text{CaCO}_3</math></td> <td><math>\text{CaSO}_4</math></td> <td>CaCl</td> <td><math>\text{SiO}_2</math></td> </tr> <tr> <td><math>\text{MgCO}_3</math></td> <td><math>\text{MgSO}_4</math></td> <td><math>\text{MgCl}_2</math></td> <td><math>\text{Fe}_2\text{O}_3</math></td> </tr> <tr> <td><math>\text{Na}_2\text{CO}_3</math></td> <td><math>\text{Na}_2\text{SO}_4</math></td> <td>NaCl</td> <td><math>\text{Mn}_2\text{O}_2</math></td> </tr> <tr> <td><math>\text{K}_2\text{CO}_3</math></td> <td><math>\text{K}_2\text{SO}_4</math></td> <td>KCL</td> <td><math>\text{Al}_2\text{O}_3</math></td> </tr> </table>	$\text{CaCO}_3$	$\text{CaSO}_4$	CaCl	$\text{SiO}_2$	$\text{MgCO}_3$	$\text{MgSO}_4$	$\text{MgCl}_2$	$\text{Fe}_2\text{O}_3$	$\text{Na}_2\text{CO}_3$	$\text{Na}_2\text{SO}_4$	NaCl	$\text{Mn}_2\text{O}_2$	$\text{K}_2\text{CO}_3$	$\text{K}_2\text{SO}_4$	KCL	$\text{Al}_2\text{O}_3$	<p>Rs. 174/- (For all tests)</p>
$\text{CaCO}_3$	$\text{CaSO}_4$	CaCl	$\text{SiO}_2$														
$\text{MgCO}_3$	$\text{MgSO}_4$	$\text{MgCl}_2$	$\text{Fe}_2\text{O}_3$														
$\text{Na}_2\text{CO}_3$	$\text{Na}_2\text{SO}_4$	NaCl	$\text{Mn}_2\text{O}_2$														
$\text{K}_2\text{CO}_3$	$\text{K}_2\text{SO}_4$	KCL	$\text{Al}_2\text{O}_3$														

<p>II. Chemical Analysis of Irrigation</p> <p>Waters Dissolved solids</p> <p>PH</p> <p>Boron as B</p> <p>Calcium as Ca</p> <p>Chloride as Cl</p> <p>Conductivity, micromohs/cm</p> <p>Manganese as Mg</p> <p>Potassium as K</p> <p>Sodium as Na</p> <p>Sulphate SO<sub>4</sub></p> <p>Oil and Grease</p> <p>III. Bacteriological Analysis of Potable Waters Rs. 50/- (for all the tests)</p> <p>Standard Plate Count</p> <p>Coliform</p> <p>EE Coli</p> <p>Fecal streptococci</p>	
<p>IV. Distilled Water ( as IS 1070-1960)</p>	<p>Rs. 120/- ( for each test)</p>
<p>V. Sewage and Trade effluent</p> <p>BOD 20°C 5 day pH</p> <p>COD suspended solids ( 103°C -15°C)</p> <p>Colour (visual) units.</p>	<p>Rs. 60/- ( for all the tests)</p>



Manganese as Mn Silica as SiO <sub>4</sub> Potassium in sludge and waste water as K Sodium in sludge and waste waters as Na Soluble phosphate as PO <sub>4</sub> Sulphides as S Suspended solids Total phosphorus Volatile acids Alkalinity ( P&M) (c ) heavy Metals ( qualitative test ) Aluminium ( gravimetric)	Rs. 24/- ( For each test )
Arsenic Barium Calcium COD Chromium Copper Cynide Insecticides Lead Magnesium( gravimetric) Mercury Nickel Selenium Silver Sulphate( gravimetric)	

Zinc

Percent Sodium



Oil and Grase Phenolic Substances	
(d)BOD Air samples analysis for:- (1 ) Carbon dioxide (2 ) Carbon monoxide (3 ) Oxyzen Total fluorides by distillation	Rs. 36/- ( For each test )
(e)Sieve analysis Conventional Marble Test The Enslow Stability Indicator Test	Rs. 40/- ( For each test )
(f) Alum dose determination by jar test in water treatment Alumino non-ferric ( as per IS: 260-1960) Bioassay tests without chemical analysis (Tim value) Plain settlement test of solution containing fines Filter sand and gravel Including sieve analysis solubility in dilute HCL loss on ignition and specific gravity	Rs. 60/- ( For each test )
(g) Alum Jar test to evaluate optimum coagulant and coagulant aid dose in water treatment Alumino ferric ( as per IS: 299- 1962 ) Lime Detailed analysis	Rs. 96/- ( For each test )
(h) Lead extraction test on UPVC pipe as per IS: 4985-1963	Rs. 180/- ( For each test )
(i)Scale deposits ( detailed analysis )	Rs.240/- ( For each test )

(j) Attrition Test	Rs. 40/- ( For each test )
(k) To find out correlation between Jackson Candle Turbidity and Gravimetric Units.	Rs. 60/- ( For each test )

**FORM XV**  
**(See Rule 35)**  
**FORM OF NOTICE**

**By registered post**  
**Acknowledgment due**

**From**

.....  
.....

**To**

.....  
.....

Notice under section 49 of the Water ( Prevention and Control of Pollution ) Act,1974.

Whereas an offence under the Water (Prevention and Control of Pollution) Act. 1974,  
has been committed/ is being Committed by  
.....

(2) I/ We hereby give notice of 60 days under section 49 of the Water (Prevention and Control of Pollution) Act, 1974 of my/our intention to file a complaint in the court against.....  
..

(2) for violation of section .....of the Water (Prevention and Control of Pollution) Act, 1974.

In support of my/our notice, I am/we are enclosing the following documents (3) as evidence of proof of violation of the Water (Prevention and Control of Pollution) Act, 1974.

**Place.....**

**Signature(s)**

**Date.....**

**Explanation:-**

(1) In case the notice is given in the name of a company, documentary evidence authorizing the person to sign the notice on behalf of the company shall be enclosed to this notice. Company for this purpose means a company defined in Explanation to section 47 of the Act.

3. Here give the name and address of the alleged offender in case of a manufacturing processing operating unit, indicated the name/location/nature of activity etc.

4. Documentary evidence shall include photographs/technical reports/health reports of the area etc. for enabling enquiry into the alleged violation/offence."

[No.oQ-15011/3/88-CPW]

G. SUNDARAM, Jt. Secy.

[Gazelle of India. 1989, Extraordinary Pt. II Sec 3(1) p. 8]

**CENTRAL POLLUTION CONTROL BOARD**

**NOTIFICATION**

**New Delhi, the 31st March, 1994**

S.O.296(E). - In exercise of the power vested under Sub- Section 4 of Section 4 of the Water (Prevention and Control of Pollution) Act, 1974, the Central Pollution Control Board pursuant to Section 17(2) of the said Act, has established the Board Laboratory located at Parivesh Bhawan, East Arjun Nagar, Shahdhra, Delhi.

The fees payable to the Board's Laboratory in respect of each report of the analysis for various Physico-chemical parameters shall be as per the rates given in Schedule annexed.

The rates shall come into force from the date of issue of this notification.

[No. Legal/42(3)/87] D. K. BJSWAS, Chairman

**CENTRAL POLLUTION CONTROL BOARD**  
**SCHEDULE OF FEE FOR ANALYSIS OF VARIOUS ANALYTICAL PARAMETERS IN**  
**CPCB LABORATORIES FOR WATER SAMPLES**

<b>S.No</b>	<b>Physical Tests</b>	<b>Fee in Rs.</b>
<b>1</b>	<b>2</b>	<b>3</b>
1.	Colour	15
2.	Conductivity	15
3.	PH	15
4.	Suspended Solids	20
5.	Settle able Solids	20
6.	Sludge Volume Index	20
7.	Total solids	20
8.	Temperature	05
9.	Turbidity	15
10.	Velocity of Flow	15
	<b>CHEMICAL TESTS</b>	
11.	Acidity	30
12.	Alkalinity	30
13.	Aluminum	70
14.	Amm. Nitrogen	85
15.	Arsenic	85
16.	Barium	70
17.	Beryllium	70
18.	Boron	70
19.	Bromide	40
20.	Carbon Dioxide	20
21.	Cadmium	85
22.	COD	85
23.	BOD	150

24.	Chloride	20
25.	Chlorine residual	20
26.	Calcium (Titrimetric)	35
27.	Chromium Hexavalent	85
28.	Chromium Total	85
29.	Copper	85
30.	Cyanide	70
31.	Dissolved Oxygen	30
32.	Fluoride	40
33.	Hardness	30
34.	Iodide	40
35.	Iron	85
36.	. Lead	85
37.	Manganese	85
38.	Magnesium	85
39.	Mercury	85
40.	Nickel	85
41.	. Nitrate Nitrogen	85
42.	Nitrite Nitrogen	85
43.	Nitrogen (organic)	85
44.	Oil & Grease	70
45.	Pesticides (each)	100
46.	Phosphate	85
47.	Phenol	85
48.	Potassium	85
49.	Selenium	85
50.	Silica	85
51.	Silver	85
52.	Sodium	85
53.	Strontium	85

54.	Sulphite	85
55.	Sulphate	40
56.	Tanin Aignin	85
57.	Tin	85
58.	Total Organin Carbon	100
59.	Urea Nitrogen	85
60.	Zinc	85

**CENTRAL POLLUTION CONTROL BOARD**  
**(Ministry of Environment & Forests)**

**NOTIFICATION**

**New Delhi, the 23rd September, 1994**

S.O.390(E)-In exercise of the power vested under sub-section 3 of Section 16 and Sub-section 2 of Section 17 read with Sub-section 4 of Section 4 of the Water (Prevention and Control of Pollution) Act, 1974, (Act 6 of 1974) and further to add in the Notification S.O.No.296(E), dated 31st March, 1994, the Central Pollution Control Board established the Laboratories located at :

- (i) Delhi                    'Parivesh Bhawan' East Arjun Nagar, Shahdara, Delhi ]]0032
  
- (ii) Calcutta                Zonal Office(East),61, Prince Anwar Shah Road. Calcutta-700 033.
  
- (iii) Vadodara              Zonal Office(West),Chokshi Chamber.Priya Laxmi Mill Road,  
Vadodara-390 003.
  
- (iv) Kanpur                 Zonal Office(Central), 1st Floor, 117/51 - Q, Block- Sharda Nagar.  
Gurdeo Place, Kanpur-208025.

he fees payable to these laboratories in respect of each report of the analysis for various analytical parameters and sampling charges for the water, wastewater and soil samples shall as per the rates given in schedule.

The rate shall come into force from the date of issue of the notification.

Schedule of Fee for analysis of various analytical parameters in CPCB Laboratories for water Samples.

**( Additional Parameters )**

Entries before serial no. 61 be referred to in the Notification No.296(E), dated 31.03.1994.

Sl. No	Parameters	Rate per Test in Rs
61.	Adsorb halides (AOX )	500
62.	Antimony	85
63.	Bioassay test( Fish )	800
64.	Chlorine demand	50
65.	Cobalt	85
66.	Detergents	50
67.	Fecal coliform	75
68.	Hardness( calsium)	30
69.	Hardness( Magnesium)	50
70.	Molebdenum	85
71.	Odour	15
72.	Percent Sodium	200
73.	Polynuclear aromatic hydrocarbon(PAH)	150
74.	Salinity	30
75.	Sodium absorption ratio(SAR)	150
76.	Solids, fixed (each)	40
77.	Solids ( dissolved)	20
78.	Solids-volatile( each)	40
79.	Standard plate count	75
80.	Sulphide	50

81.	Total coliform	75
82.	Volatic organic acids	80



## SOIL SAMPELS

Sl. No	Parameters	Rate per Test in Rs
01.	Ammonia	85
2.	Calcium	60
3.	Calcium carbide	60
4.	Cation exchange capacity( CEC)	80
5.	Chloride	40
6.	Colour	15
7.	Conductivity( EC)	30
8.	Exchangeable sodium percent (ESP)	250
9.	Heavy metals/trace elements(each)	100
10.	Magnesium	70
11.	Mechanical soil analysis ( Texture)	50
12.	Nitrate	85
13.	Nitrite	85
14.	Organic carbon/matter ( chemical method)	85
15.	Pesticides(each)	150
16.	PH	50
17.	Phosphate	85
18.	Polyunclear aromatic hydricarbon( PAH)	150
19.	Potassium	100
20.	Sodium	100
21.	Sodium absorption ratio(SAR) in soil extract	200
22.	Soil moisture	30
23.	Sulphate	60
24.	Total water soluble salts	50
25.	Total organic carbon( TOC)	150
26.	Total Kjeldohl Nitrozen( TKN)	100
27.	Water holding capacity	50

## Samples charges for Water &amp; Wastewater

Sl. No	Type of sampling	Charges in Rs.
1.	2.	3.
I.	<b>GRAB SAMPLING</b>	
	(1) Grab sampling/sample/place	250
	(2) For every additional grab sampling/same place	125
II.	<b>COMPOSITE SAMPLING</b>	
	(1) Composite sampling/sources/place upto 8 hrs.	500
	Composite sampling/sources/place upto 16 hrs.	1000
	Composite sampling/sources/place upto 24 hrs.	1500
	(2) for every additional composite sampling /same place but different sources upto 8 hrs.	250
	-do- upto 16 hrs	500
	-do- upto 24 hrs	750
III.	<b>Flow rate measurement/sources - Once-</b>	200
	-do- every additional	75

**Note:**

5. Transportation is separate on actual basis. .
6. Sample analysis charges are separate as per list.

**No. Legal/42/(3 )/87]**  
**D.K.BISWAS, Chairman**

# THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

---

## ARRANGEMENT OF SECTIONS

---

### CHAPTER I PRELIMINARY

#### SECTIONS

42. Short title, extent and commencement.
43. Definitions.

### CHAPTER II

#### CENTRAL AND STATE BOARDS FOR THE PREVENTION AND CONTROL OF AIR POLLUTION

2. Central Pollution Control Board.
3. State Pollution Control Boards constituted under section 4 of Act 6 of 1974 to be State Boards under this Act.
4. Constitution of State Boards.
5. Central Board to exercise the powers and perform the functions of a State Board in the Union territories.
6. Terms and conditions of service of members.
7. Disqualifications.
8. Vacation of seats by members.
9. Meetings of Board.
10. Constitution of committees
11. Temporary association of persons with Board for particular purpose.
12. Vacancy in Board not to invalidate acts or proceedings.
13. Member-secretary and officers and other employees of State Boards.
14. Delegation of powers.

### CHAPTER III

#### POWERS AND FUNCTIONS OF BOARDS

5. Functions of Central Board.
6. Functions of State Boards.
7. Power to give directions.

### CHAPTER IV

#### PREVENTION AND CONTROL OF AIR POLLUTION

4. Power to declare air pollution control areas.
  5. Power to give instructions for ensuring standards for emission from automobiles.
  6. Restrictions on use of certain industrial plants.
  7. Persons carrying on industry, etc., not to allow emission of air pollutants in excess of the standard laid down by State Board.
- 22A. Power of Board to make application to court for restraining persons from causing air pollution.

## SECTIONS

- 8. Furnishing of information to State Board and other agencies in certain cases.
- 9. Power of entry and inspection.
- 10. Power to obtain information.
- 11. Power to take samples of air or emission and procedure to be followed in connection therewith.
- 12. Reports of the result of analysis on samples taken under section 26.
- 13. State Air Laboratory.
- 14. Analysis.
- 15. Reports of analysis.
- 16. Appeals.
- 31A. Power to give directions.

CHAPTER V  
FUND, ACCOUNTS AND AUDIT

- 8. Contribution by Central Government.
- 9. Fund of Board.
- 33A. Borrowing powers of Board.
- (c) Budget.
- (d) Annual report.
- (e) Accounts and audit.

CHAPTER VI  
PENALTIES AND PROCEDURE

- 42. Failure to comply with the provisions of section 21 or section 22 or with the directions issued under section 31A.
- 43. Penalties for certain acts.
- 44. Penalty for contravention of certain provisions of the Act.
- 45. Offences by companies.
- 46. Offences by Government Departments.
- 47. Protection of action taken in good faith.
- 48. Cognizance of offences.
- 49. Members, officers and employees of Board to be public servants.
- 50. Reports and returns.
- 51. Bar of jurisdiction.

CHAPTER VII  
MISCELLANEOUS

- (m) Power of State Government to supersede State Board.
- (n) Special provision in the case of supersession of the Central Board or the State Boards constituted under the Water (Prevention and Control of Pollution) Act, 1974.
- (o) Dissolution of State Boards constituted under the Act.
- (p) [Omitted].
- (q) Maintenance of register.

## SECTIONS

- (l) Effect of other laws.
- (m) Power of Central Government to make rules.

Power of State Government to make rules. THE SCHEDULE [Omitted].

THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

ACT No. 14 OF 1981

[29th March, 1981.]

An Act to provide for the prevention, control and abatement of air pollution, for the establishment, with a view to carrying out the aforesaid purposes, of Boards, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

WHEREAS decisions were taken at the United Nations Conference on the Human Environment held in Stockholm in June, 1972, in which India participated, to take appropriate steps for the preservation of the natural resources of the earth which, among other things, include the preservation of the quality of air and control of air pollution;

AND WHEREAS it is considered necessary to implement the decisions aforesaid in so far as they relate to the preservation of the quality of air and control of air pollution;

BE it enacted by Parliament in the Thirty-second Year of the Republic of India as follows:—

CHAPTER I  
PRELIMINARY

**1. Short title, extent and commencement.**—(1) This Act may be called the Air (Prevention and Control of Pollution) Act, 1981.

(2) It extends to the whole of India.

(3) It shall come into force on such date<sup>1</sup> as the Central Government may, by notification in the Official Gazette, appoint.

**2. Definitions.**—In this Act, unless the context otherwise requires,—

(a) “air pollutant” means any solid, liquid or gaseous substance<sup>2</sup> [(including noise)] present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment;

(b) “air pollution” means the presence in the atmosphere of any air pollutant;

(c) “approved appliance” means any equipment or gadget used for the bringing of any combustible material or for generating or consuming any fume, gas or particulate matter and approved by the State Board for the purposes of this Act;

(d) “approved fuel” means any fuel approved by the State Board for the purposes of this Act;

(e) “automobile” means any vehicle powered either by internal combustion engine or by any method of generating power to drive such vehicle by burning fuel;

(f) “Board” means the Central Board or a State Board;

(g) “Central Board” means the<sup>3</sup> [Central Pollution Control Board] constituted under section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(h) “chimney” includes any structure with an opening or outlet from or through which any air pollutant may be emitted;

(i) “control equipment” means any apparatus, device, equipment or system to control the quality and manner of emission of any air pollutant and includes any device used for securing the efficient operation of any industrial plant;

1. 16th May, 1981, *vide* notification No. G.S.R. 351(E), dated 15th May, 1981, *see* Gazette of India, Extraordinary, Part II, sec. 3 (i).

(5) Ins. by Act 47 of 1987, s. 2 (w.e.f. 1-4-1988).

(6) Subs. by s. 2, *ibid.*, for “Central Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

(j) “emission” means any solid or liquid or gaseous substance coming out of any chimney, duct or flue or any other outlet;

(k) “industrial plant” means any plant used for any industrial or trade purposes and emitting any air pollutant into the atmosphere;

(l) “member” means a member of the Central Board or a State Board, as the case may be, and includes the Chairman thereof;

<sup>1</sup>[(m) “occupier”, in relation to any factory or premises, means the person who has control over the affairs of the factory or the premises, and includes, in relation to any substance, the person in possession of the substance;]

(n) “prescribed” means prescribed by rules made under this Act by the Central Government or, as the case may be, the State Government;

(o) “State Board” means,—

(i) in relation to a State in which the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), is in force and the State Government has constituted for that State a <sup>2</sup>[State Pollution Control Board] under section 4 of that Act, the said State Board; and

(ii) in relation to any other State, the State Board for the Prevention and Control of Air Pollution constituted by the State Government under section 5 of this Act.

## CHAPTER II

### CENTRAL AND STATE BOARDS FOR THE PREVENTION AND CONTROL OF AIR POLLUTION

<sup>3</sup>[**3. Central Pollution Control Board.**—The Central Pollution Control Board constituted under section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), shall, without prejudice to the exercise and performance of its powers and functions under that Act, exercise the powers and perform the functions of the Central Pollution Control Board for the prevention and control of air pollution under this Act.

**4. State Pollution Control Boards constituted under section 4 of Act 6 of 1974 to be State Boards under this Act.**—In any State in which the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), is in force and the State Government has constituted for that State a State Pollution Control Board under section 4 of that Act, such State Board shall be deemed to be the State Board for the Prevention and Control of air Pollution constituted under section 5 of this Act, and accordingly that State Pollution Control Board shall, without prejudice to the exercise and performance of its powers and functions under that Act, exercise the powers and perform the functions of the State Board for the prevention and control of air pollution under this Act.]

**5. Constitution of State Boards.**—(1) In any State in which the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), is not in force, or that Act is in force but the State Government has not constituted a <sup>4</sup>[State Pollution Control Board] under that Act, the State Government shall, with effect from such date as it may, by notification in the Official Gazette, appoint, constitute a State Board for the Prevention and Control of Air Pollution under such name as may be specified in the notification, to exercise the powers conferred on, and perform the functions assigned to, that Board under this Act.

(2) A State Board constituted under this Act shall consist of the following members, namely:—

(a) a Chairman, being a person, having special knowledge or practical experience in respect of matters relating to environmental protection, to be nominated by the State Government:

Provided that the Chairman may be either whole-time or part-time as the State Government may think fit;

(iv) Subs. by Act 47 of 1987, s. 2, for clause (m) (w.e.f. 1-4-1988).

(v) Subs. by s. 2, *ibid.*, for “State Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

(vi) Subs. by s. 3, *ibid.*, for sections 3 and 4 (w.e.f. 1-4-1988).

(vii) Subs. by s. 4, *ibid.*, for “State Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

(b) such number of officials, not exceeding five, as the State Government may think fit, to be nominated by the State Government to represent that Government;

(c) such number of persons, not exceeding five, as the State Government may think fit, to be nominated by the State Government from amongst the members of the local authorities functioning within the State;

(d) such number of non-officials, not exceeding three, as the State Government may think fit, to be nominated by the State Government to represent the interest of agriculture, fishery or industry or trade or labour or any other interest, which, in the opinion of that Government, ought to be represented;

(e) two persons to represent the companies or corporations owned, controlled or managed by the State Government, to be nominated by that Government;

<sup>1</sup>[(f) a full-time member-secretary having such qualifications knowledge and experience of scientific, engineering or management aspects of pollution control as may be prescribed, to be appointed by the State Government:]

Provided that the State Government shall ensure that not less than two of the members are persons having special knowledge or practical experience in respect of matters relating to the improvement of the quality of air or the prevention, control or abatement of air pollution.

(3) Every State Board constituted under this Act shall be a body corporate with the name specified by the State Government in the notification issued under sub-section (1), having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire and dispose of property and to contract, and may by the said name sue or be sued.

**6. Central Board to exercise the powers and perform the functions of a State Board in the Union territories.**—No State Board shall be constituted for a Union territory and in relation to a Union territory, the Central Board shall exercise the powers and perform the functions of a State Board under this Act for that Union territory:

Provided that in relation to any Union territory the Central Board may delegate all or any of its powers and functions under this section to such person or body of persons as the Central Government may specify.

**7. Terms and conditions of service of members.**—(1) Save as otherwise provided by or under this Act, a member of a State Board constituted under this Act, other than the member-secretary, shall hold office for a term of three years from the date on which his nomination is notified in the Official Gazette:

Provided that a member shall, notwithstanding the expiration of his term, continue to hold office until his successor enters upon his office.

(2) The terms of office of a member of a State Board constituted under this Act and nominated under clause (b) or clause (e) of sub-section (2) of section 5 shall come to an end as soon as he ceases to hold the office under the State Government or, as the case may be, the company or corporation owned, controlled or managed by the State Government, by virtue of which he was nominated.

(3) A member of a State Board constituted under this Act, other than the member-secretary, may at any time resign his office by writing under his hand addressed,—

(a) in the case of the Chairman, to the State Government;

and (b) in any other case, to the Chairman of the State

Board,

and the seat of the Chairman or such other member shall thereupon become vacant.

(4) A member of a State Board constituted under this Act, other than the member-secretary, shall be deemed to have vacated his seat, if he is absent without reason, sufficient in the opinion of the State Board, from three consecutive meetings of the State Board or where he is nominated under clause (c) of sub-section (2) of section 5, he ceases to be a member of the local authority and such vacation of seat

---

1. Subs. by Act 47 of 1987, s. 4, for clause (f) (w.e.f. 1-4-1988).

shall, in either case, take effect from such date as the State Government may, by notification in the Official Gazette, specify.

(5) A casual vacancy in a State Board constituted under this Act shall be filled by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term for which the member whose place he takes was nominated.

(6) A member of a State Board constituted under this Act shall be eligible for re-nomination<sup>1\*\*\*</sup>

(7) The other terms and conditions of service of the Chairman and other members (except the member-secretary) of a State Board constituted under this Act shall be such as may be prescribed.

**8. Disqualifications.**—(1) No person shall be a member of a State Board constituted under this Act, who—

(a) is, or at any time has been, adjudged insolvent, or

(b) is of unsound mind and has been so declared by a competent court, or

(c) is, or has been, convicted of an offence which, in the opinion of the State Government, involves moral turpitude, or

(d) is, or at any time has been, convicted of an offence under this Act, or

(e) has directly or indirectly by himself or by any partner, any share or interest in any Firm or company carrying on the business of manufacture, sale, or hire of machinery, industrial plant, control equipment or any other apparatus for the improvement of the quality of air or for the prevention, control or abatement of air pollution, or

(f) is a director or a secretary, manager or other salaried officer or employee of any company or firm having any contract with the Board, or with the Government constituting the Board or with a local authority in the State, or with a company or corporation owned, controlled or managed by the Government, for the carrying out of programmes for the improvement of the quality of air or for the prevention, control or abatement of air pollution, or

(g) has so abused, in the opinion of the State Government, his position as a member, as to render his continuance on the State Board detrimental to the interest of the general public.

(2) The State Government shall, by order in writing, remove any member who is, or has become, subject to any disqualification mentioned in sub-section (1).

Provided that no order of removal shall be made by the State Government under this section unless the member concerned has been given a reasonable opportunity of showing cause against the same.

(3) Notwithstanding anything contained in sub-section (1) or sub-section (6) of section 7, a member who has been removed under this section shall not be eligible to continue to hold office until his successor enters upon his office, or, as the case may be, for re-nomination as a member.

**(9) Vacation of seats by members.**—If a member of a State Board constituted under this Act becomes subject to any of the disqualifications specified in section 8, his seat shall become vacant.

**(10) Meetings of Board.**—(1) For the purposes of this Act, a Board shall meet at least once in every three months and shall observe such rules of procedure in regard to the transaction of business at its meetings as may be prescribed:

Provided that if, in the opinion of the Chairman, any business of an urgent nature is to be transacted, he may convene a meeting of the Board at such time as he thinks fit for the aforesaid purpose.

(2) Copies of minutes of the meetings under sub-section (1) shall be forwarded to the Central Board and to the State Government concerned.

---

1. The words “but not for more than two terms” omitted by Act 47 of 1987, s. 5 (w.e.f. 1-4-1988).



**11. Constitution of committees.**—(1) A Board may constitute as many committees consisting wholly of members or partly of members and partly of other persons and for such purpose or purposes as it may think fit.

(2) A committee constituted under this section shall meet at such time and at such place, and shall observe such rules of procedure in regard to the transaction of business at its meetings, as may be prescribed.

(3) The members of a committee other than the members of the Board shall be paid such fees and allowances, for attending its meetings and for attending to any other work of the Board as may be prescribed.

**12. Temporary association of persons with Board for particular purpose.**—(1) A Board may associate with itself in such manner, and for such purposes, as may be prescribed, any person whose assistance or advice it may desire to obtain in performing any of its functions under this Act.

(2) A person associated with the Board under sub-section (1) for any purpose shall have a right to take part in the discussions of the Board relevant to that purpose, but shall not have a right to vote at a meeting of the Board and shall not be a member of the Board for any other purpose.

(3) A person associated with a Board under sub-section (1) shall be entitled to receive such fees and allowances as may be prescribed.

**(f) Vacancy in Board not to invalidate acts or proceedings.**—No act or proceeding of a Board or any committee thereof shall be called in question on the ground merely of the existence of any vacancy in, or any defect in the constitution of, the Board or such committee, as the case may be.

**(g) Member-secretary and officers and other employees of State Boards.**—(1) The terms and conditions of service of the member-secretary of a State Board constituted under this Act shall be such as may be prescribed.

<sup>1</sup>[(2) The member-secretary of a State Board, whether constituted under this Act or not, shall exercise such powers and perform such duties as may be prescribed, or as may, from time to time, be delegated to him by the State Board or its Chairman.]

(3) subject to such rules as may be made by the State Government in this behalf, a State Board, whether constituted under this Act or not, may appoint such officers and other employees as it considers necessary for the efficient performance of its functions under this Act.

(4) The method of appointment, the conditions of service and the scales of pay of the officers (other than the member-secretary) and other employees of a State Board appointed under sub-section (3) shall be such as may be determined by regulations made by the State Board under this Act.

(5) Subject to such conditions as may be prescribed, a State Board constituted under this Act may from time to time appoint any qualified person to be a consultant to the Board and pay him such salary and allowances or fees, as it thinks fit.

**15. Delegation of powers.**—A State Board may, by general or special order, delegate to the Chairman or the member-secretary or any other officer of the Board subject to such conditions and limitations, if any, as may be specified in the order, such of its powers and functions under this Act as it may deem necessary.

### CHAPTER III

#### POWERS AND FUNCTIONS OF BOARDS

**16. Functions of Central Board.**—(1) Subject to the provisions of this Act, and without prejudice to the performance, of its functions under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), the main functions of the Central Board shall be to improve the quality of air and to prevent, control or abate air pollution in the country.

---

1. Subs. by Act 47 of 1987, s. 6, for sub-section (2) (w.e.f. 1-4-1988).

(2) In particular and without prejudice to the generality of the foregoing functions, the Central Board may—

(a) advise the Central Government on any matter concerning the improvement of the quality of air and the prevention, control or abatement of air pollution;

(b) plan and cause to be executed a nation-wide programme for the prevention, control or abatement of air pollution;

(c) co-ordinate the activities of the State and resolve disputes among them;

(d) provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of air pollution and prevention, control or abatement of air pollution;

<sup>1</sup>[(dd) perform such of the functions of any State Board as may be specified in and order made under sub-section (2) of section 18;]

(e) plan and organise the training of persons engaged or to be engaged in programmes for the prevention, control or abatement of air pollution on such terms and conditions as the Central Board may specify;

(f) organise through mass media a comprehensive programme regarding the prevention, control or abatement of air pollution;

(g) collect, compile and publish technical and statistical data relating to air pollution and the measures devised for its effective prevention, control or abatement and prepare manuals, codes or guides relating to prevention, control or abatement of air pollution;

(h) lay down standards for the quality of air;

(i) collect and disseminate information in respect of matters relating to air pollution; (j) perform such other functions as may be prescribed.

(3) The Central Board may establish or recognise a laboratory or laboratories to enable the Central Board to perform its functions under this section efficiently.

(4) The Central Board may—

(a) delegate any of its functions under this Act generally or specially to any of the committees appointed by it;

(b) do such other things and perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

**17. Functions of State Boards.**—(1) Subject to the provisions of this Act, and without prejudice to the performance of its functions, if any, under the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974), the functions of a State Board shall be—

(a) to plan a comprehensive programme for the prevention, control or abatement of air pollution and to secure the execution thereof;

(b) to advise the State Government on any matter concerning the prevention, control or abatement of air pollution;

(c) to collect and disseminate information relating to air pollution;

(d) to collaborate with the Central Board in organising the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of air pollution and to organise mass-education programme relating thereto;

---

1. Ins. by Act 47 of 1987, s. 7 (w.e.f. 1-4-1988).

(e) to inspect, at all reasonable times, any control equipment, industrial plant or manufacturing process and to give, by order, such directions to such persons as it may consider necessary to take steps for the prevention, control or abatement of air pollution;

(f) to inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;

(g) to lay down, in consultation with the Central Board and having regard to the standards for the quality of air laid down by the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or an aircraft:

Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

(h) to advise the State Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;

(i) to Perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by the Central Board or the State Government;

(j) to do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

(2) A State Board may establish or recognise a laboratory or laboratories to enable the State Board to perform its functions under this section efficiently.

**18. Power to give directions.**—<sup>1</sup>[(I)] In the performance of its functions under this Act—

(a) the Central Board shall be bound by such directions in writing as the Central Government may give to it; and

(b) every State Board shall be bound by such directions in writing as the Central Board or the State Government may give to it:

Provided that where a direction given by the State Government is inconsistent with the direction given by the Central Board, the matter shall be referred to the Central Government for its decision.

<sup>2</sup>[(2) Where the Central Government is of the opinion that any State Board has defaulted in complying with any directions given by the Central Board under sub-section (I) and as a result of such default a grave emergency has arisen and it is necessary or expedient so to do in the public interest, it may, by order, direct the Central Board to perform any of the functions of the State Board in relation to such area, for such period and for such purposes, as may be specified in the order.

(3) Where the Central Board performs any of the functions of the State Board in pursuance of a direction under sub-section (2), the expenses, if any, incurred by the Central Board with respect to the performance of such functions may, if the State Board is empowered to recover such expenses, be recovered by the Central Board with interest (at such reasonable rate as the Central Government may, by order, fix) from the date when a demand for such expenses is made until it is paid from the person or persons concerned as arrears of land revenue or of public demand.

(4) For the removal of doubts, it is hereby declared that any directions to perform the functions of any State Board given under sub-section (2) in respect of any area would not preclude the State Board from performing such functions in any other area in the State or any of its other functions' in that area.]

24. Section 18 renumbered as sub-section (I) thereof by Act 47 of 1987, s. 8 (w.e.f. 1-4-1988).

25. Ins. by s. 8, *ibid.* (w.e.f. 1-4-1988).

CHAPTER IV  
PREVENTION AND CONTROL OF AIR POLLUTION

**19. Power to declare air pollution control areas.**—(1) The State Government may, after consultation with the State Board, by notification in the Official Gazette declare in such manner as may be prescribed, any area or areas within the State as air pollution control area or areas for the purposes of this Act.

(2) The State Government may, after consultation with the State Board, by notification in the Official Gazette,—

(a) alter any air pollution control area whether by way of extension or reduction;

(b) declare a new air pollution control area in which may be merged one or more existing air pollution control areas or any part or parts thereof.

(3) If the State Government, after consultation with the State Board, is of opinion that the use of any fuel, other than an approved fuel, in any air pollution control area or part thereof, may cause or is likely to cause air pollution, it may, by notification in the Official Gazette, prohibit the use of such fuel in such area or part thereof with effect from such date (being not less than three months from the date of publication of the notification) as may be specified in the notification.

(4) The State Government may, after consultation with the State Board, by notification in the Official Gazette, direct that with effect from such date as may be specified therein, no appliance, other than an approved appliance, shall be used in the premises situated in an air pollution control area:

Provided that different dates may be specified for different parts of an air pollution control area or for the use of different appliances.

(5) If the State Government, after consultation with the State Board, is of opinion that the burning of any material (not being fuel) in any air pollution control area or part thereof may cause or is likely to cause air pollution, it may, by notification in the Official Gazette, prohibit the burning of such material in such area or part thereof.

**20. Power to give instructions for ensuring standards for emission from automobiles.**—With a view to ensuring that the standards for emission of air pollutants from automobiles laid down by the State Board under clause (g) of sub-section (1) of section 17 are complied with, the State Government shall, in consultation with the State Board, give such instructions as may be deemed necessary to the concerned authority in charge of registration of motor vehicles under the Motor Vehicles Act, 1939 (4 of 1939), and such authority shall, notwithstanding anything contained in that Act or the rules made thereunder be bound to comply with such instructions.

**21. Restrictions on use of certain industrial plants.**—<sup>1</sup>[(1) Subject to the provisions of this section, no person shall, without the previous consent of the State Board, establish or operate any industrial plant in an air pollution control area:

Provided that a person operating any industrial plant in any air pollution control area immediately before the commencement of section 9 of the Air (Prevention and Control of Pollution) Amendment Act, 1987, for which no consent was necessary prior to such commencement, may continue to do so for a period of three months from such commencement or, if he has made an application for such consent within the said period of three months, till the disposal of such application.]

(2) An application for consent of the State Board under sub-section (1) shall be accompanied by such fees as may be prescribed and shall be made in the prescribed form and shall contain the particulars of the industrial plant and such other particulars as may be prescribed:

Provided that where any person, immediately before the declaration of any area as an air pollution control area, operates in such area any industrial plant, <sup>2</sup>\*\*\*such person shall make the application under this sub-section within such period (being not less than three months from the date of such declaration) as

(3) Subs. by Act 47 of 1987, s. 9, for sub-section (1) (w.e.f. 1-4-1988).

(4) The words “for the purpose of any industry specified in the Schedule” omitted by s. 9, *ibid.* (w.e.f. 1-4-1988).

may be prescribed and where such person makes such application, he shall be deemed to be operating such industrial plant with the consent of the State Board until the consent applied for has been refused.

(3) The State Board may make such inquiry as it may deem fit in respect of the application for consent referred to in sub-section (1) and in making any such inquiry, shall follow such procedure as may be prescribed.

(4) Within a period of four months after the receipt of the application for consent referred to in sub-section (1), the State Board shall, by order in writing, <sup>1</sup>[and for reasons to be recorded in the order, grant the consent applied for subject to such conditions and for such period as may be specified in the order, or refuse such consent]:

<sup>2</sup>[Provided that it shall be open to the State Board to cancel such consent before the expiry of the period for which it is granted or refuse further consent after such expiry if the conditions subject to which such consent has been granted are not fulfilled:

Provided further that before cancelling a consent or refusing a further consent under the first provision, a reasonable opportunity of being heard shall be given to the person concerned.]

(5) Every person to whom consent has been granted by the State Board under sub-section (4), shall comply with the following conditions, namely:—

(i) the control equipment of such specifications as the State Board may approve in this behalf shall be installed and operated in the premises where the industry is carried on or proposed to be carried on;

(ii) the existing control equipment, if any, shall be altered or replaced in accordance with the directions of the State Board;

(iii) the control equipment referred to in clause (i) or clause (ii) shall be kept at all times in good running condition;

(iv) chimney, wherever necessary, of such specifications as the State Board may approve in this behalf shall be erected or re-erected in such premises; and

(v) such other conditions as the State Board, may specify in this behalf; and

(vi) the conditions referred to in clauses (i), (ii) and (iv) shall be complied with within such period as the State Board may specify in this behalf:

Provided that in the case of a person operating any industrial plant <sup>3\*\*\*</sup> in an air pollution control area immediately before the date of declaration of such area as an air pollution control area, the period so specified shall not be less than six months:

Provided further that—

(a) after the installation of any control equipment in accordance with the specifications under clause (i), or

(b) after the alteration or replacement of any control equipment in accordance with the directions of the State Board under clause (ii), or

(c) after the erection or re-erection of any chimney under clause (iv),

no control equipment or chimney shall be altered or replaced or, as the case may be, erected or re-erected except with the previous approval of the State Board.

(6) If due to any technological improvement or otherwise the State Board is of opinion that all or any of the conditions referred to in sub-section (5) require or requires variation (including the change of any control equipment, either in whole or in part), the State Board shall, after giving the person to whom

2. Subs. by Act 47 of 1987, s. 9, for certain words (w.e.f. 1-4-1988).

3. Ins. by s. 9, *ibid.* (w.e.f. 1-4-1988).

4. The words “for the purpose of any industry specified in the Schedule” omitted by s. 9, *ibid.* (w.e.f. 1-4-1988).

consent has been granted an opportunity of being heard, vary all or any of such conditions and thereupon such person shall be bound to comply with the conditions as so varied.

(7) Where a person to whom consent has been granted by the State Board under sub-section (4) transfers his interest in the industry to any other person, such consent shall be deemed to have been granted to such other person and he shall be bound to comply with all the conditions subject to which it was granted as if the consent was granted to him originally.

**22. Persons carrying on industry, etc., not to allow emission of air pollutants in excess of the standard laid down by State Board.**—No person<sup>1\*\*\*\*</sup> operating any industrial plant, in any air pollution control area shall discharge or cause or permit to be discharged the emission of any air pollutant in excess of the standards laid down by the State Board under clause (g) of sub-section (1) of section 17.

<sup>2</sup>[**22A. Power of Board to make application to court for restraining person from causing air pollution.**—(1) Where it is apprehended by a Board that emission of any air pollutant, in excess of the standards laid down by the State Board under clause (g) of sub-section (1) of section 17, is likely to occur by reason of any person operating an industrial plant or otherwise in any air pollution control area, the Board may make an application to a court, not inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class for restraining such person from emitting such air pollutant.

(2) On receipt of the application under sub-section (1), the court may make such order as it deems fit.

(3) Where under sub-section (2), the court makes an order restraining any person from discharging or causing or permitting to be discharged the emission of any air pollutant, it may, in that order,—

(a) direct such person to desist from taking such action as is likely to cause emission;

(b) authorise the Board, if the direction under clause (a) is not complied with by the person to whom such direction is issued, to implement the direction in such manner as may be specified by the court.

(4) All expenses incurred by the Board in implementing the directions of the court under clause (b) of sub-section (3) shall be recoverable from the person concerned as arrears of land revenue or of public demand.]

**23. Furnishing of information to State Board and other agencies in certain cases.**—(1) Where in any<sup>3\*\*\*</sup> area the emission of any air pollutant into the atmosphere in excess of the standards laid down by the State Board occurs or is apprehended to occur due to accident or other unforeseen act or event, the person in charge of the premises from where such emission occurs or is apprehended to occur shall forthwith intimate the fact of such occurrence or the apprehension of such occurrence to the State Board and to such authorities or agencies as may be prescribed.

(2) On receipt of information with respect to the fact or the apprehension of any occurrence of the nature referred to in sub-section (1), whether through intimation under that sub-section or otherwise, the State Board and the authorities or agencies shall, as early as practicable, cause such remedial measure to be taken as are necessary to mitigate the emission of such air pollutants.

(3) Expenses, if any, incurred by the State Board, authority or agency with respect to the remedial measures referred to in sub-section (2) together with interest (at such reasonable rate, as the State Government may, by order, fix) from the date when a demand for the expenses is made until it is paid, may be recovered by that Board, authority or agency from the person concerned, as arrears of land revenue, or of public demand.

**24. Power of entry and inspection.**—(1) Subject to the provisions of this section, any person empowered by a State Board in this behalf shall have a right to enter, at all reasonable times with such assistance as he considers necessary, any place—

(a) for the purpose of performing any of the functions of the State Board entrusted to him;

(d) The words “carrying on any industry specified in the Schedule or” omitted by Act 47 of 1987, s. 10 (w.e.f. 1-4-1988).

(e) Ins. by s. 11, *ibid.* (w.e.f. 1-4-1988).

(f) The words “air pollution control” omitted by s. 12, *ibid.* (w.e.f. 1-4-1988).

(b) for the purpose of determining whether and if so in what manner, any such functions are to be performed or whether any provisions of this Act or the rules made thereunder or any notice, order, direction or authorisation served, made, given or granted under this Act is being or has been complied with;

(c) for the purpose of examining and testing any control equipment, industrial plant, record, register, document or any other material object or for conducting a search of any place in which he has reason to believe that an offence under this Act or the rules made thereunder has been or is being or is about to be committed and for seizing any such control equipment, industrial plant, record, register, document or other material object if he has reasons to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder.

(2) Every person <sup>1\*\*\*</sup> operating any control equipment or any industrial plant, in an air pollution control area shall be bound to render all assistance to the person empowered by the State Board under sub-section (1) for carrying out the functions under that sub-section and if he fails to do so without any reasonable cause or excuse, he shall be guilty of an offence under this Act.

(3) If any person willfully delays or obstructs any person empowered by the State Board under sub-section (1) in the discharge of his duties, he shall be guilty of an offence under this Act.

(4) The provisions of the Code of Criminal Procedure, 1973 (2 of 1974), or, in relation to the State of Jammu and Kashmir, or any area, in which that Code is not in force, the provisions of any corresponding law in force in that State or area, shall, so far as may be, apply to any search or seizure under this section as they apply to any search or seizure made under the authority of a warrant issued under section 94 of the said Code or, as the case may be, under the corresponding provisions of the said law.

**(c) Power to obtain information.**—For the purposes of carrying out the functions entrusted to it, the State Board or any officer empowered by it in that behalf may call for any information (including information regarding the types of air pollutants emitted into the atmosphere and the level of the emission of such air pollutants) from the occupier or any other person carrying on any industry or operating any control equipment or industrial plant and for the purpose of verifying the correctness of such information, the State Board or such officer shall have the right to inspect the premises where such industry, control equipment or industrial plant is being carried on or operated.

**(d) Power to take samples of air or emission and procedure to be followed in connection therewith.**—(1) A State Board or any officer empowered by it in this behalf shall have power to take, for the purpose of analysis, samples of air or emission from any chimney, flue or duct or any other outlet in such manner as may be prescribed.

(2) The result of any analysis of a sample of emission taken under sub-section (1) shall not be admissible in evidence in any legal proceeding unless the provisions of sub-sections (3) and (4) are complied with.

(3) Subject to the provisions of sub-section (4), when a sample of emission is taken for analysis under sub-section (1), the person taking the sample shall—

(a) serve on the occupier or his agent, a notice, then and there, in such form as may be prescribed, of his intention to have it so analysed;

(b) in the presence of the occupier or his agent, collect a sample of emission for analysis;

(c) cause the sample to be placed in a container or containers which shall be marked and sealed and shall also be signed both by the person taking the sample and the occupier or his agent;

(d) send, without delay, the container or containers to the laboratory established or recognised by the State Board under section 17 or, if a request in that behalf is made by the occupier or his agent when the notice is served on him under clause (a), to the laboratory established or specified under sub-section (1) of section 28.

---

1. The words “carrying on any industry specified in the Schedule and every person” omitted by Act 47 of 1987, s. 13 (w.e.f. 1-4-1988).

(4) When a sample of emission is taken for analysis under sub-section (1) and the person taking the sample serves on the occupier or his agent, a notice under clause (a) of sub-section (3), then,—

(a) in a case where the occupier or his agent wilfully absents himself, the person taking the sample shall collect the sample of emission for analysis to be placed in a container or containers which shall be marked and sealed and shall also be signed by the person taking the sample, and

(b) in a case where the occupier or his agent is present at the time of taking the sample but refuses to sign the marked and sealed container or containers of the sample of emission as required under clause (c) of sub-section (3), the marked and sealed container or containers shall be signed by the person taking the sample,

and the container or containers shall be sent without delay by the person taking the sample for analysis to the laboratory established or specified under sub-section (1) of section 28 and such person shall inform the Government analyst appointed under sub-section (1) of section 29, in writing, about the wilful absence of the occupier or his agent, or, as the case may be, his refusal to sign the container or containers.

**27. Reports of the result of analysis on samples taken under section 26.**—(1) Where a sample of emission has been sent for analysis to the laboratory established or recognised by the State Board, the Board analyst appointed under sub-section (2) of section 29 shall analyse the sample and submit a report in the prescribed form of such analysis in triplicate to the State Board.

(2) On receipt of the report under sub-section (1), one copy of the report shall be sent by the State Board to the occupier or his agent referred to in section 26, another copy shall be preserved for production before the court in case any legal proceedings are taken against him and the other copy shall be kept by the State Board.

(3) Where a sample has been sent for analysis under clause of sub-section (3) or sub-section (4) of section 26 to any laboratory mentioned therein, the Government analyst referred to in the said sub-section (4) shall analyse the sample and submit a report in the prescribed form of the result of the analysis in triplicate to the State Board which shall comply with the provisions of sub-section (2).

(4) Any cost incurred in getting any sample analysed at the request of the occupier or his agent as provided in clause (d) of sub-section (3) of section 26 or when he wilfully absents himself or refuses to sign the marked and sealed container or containers of sample of emission under sub-section (4) of that section, shall be payable by such occupier or his agent and in case of default the same shall be recoverable from him as arrears of land revenue or of public demand.

**28. State Air Laboratory.**—(1) The State Government may, by notification in the Official Gazette, —

(a) establish one or more State Air Laboratories; or

(b) specify one or more laboratories or institutes as State Air Laboratories to carry out the functions entrusted to the State Air Laboratory under this Act.

(2) The State Government may, after consultation with the State Board, make rules prescribing— (a) the functions of the State Air Laboratory;

(b) the procedure for the submission to the said Laboratory of samples of air or emission for analysis or tests, the form of the Laboratory's report thereon and the fees payable in respect of such report;

(c) such other matters as may be necessary or expedient to enable that Laboratory to carry out its functions.

**29. Analysts.**—(1) The State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit and having the prescribed qualifications to be Government analysts for the purpose of analysis of samples of air or emission sent for analysis to any laboratory established or specified under sub-section (1) of section 28.



(2) Without prejudice to the provisions of section 14, the State Board may, by notification in the Official Gazette, and with the approval of the State Government, appoint such persons as it thinks fit and having the prescribed qualifications to be Board analysts for the purpose of analysis of samples of air or emission sent for analysis to any laboratory established or recognised under section 17.

**(4) Reports of analysts.**—Any document purporting to be a report signed by a Government analyst or, as the case may be, a State Board analyst may be used as evidence of the facts stated therein in any proceeding under this Act.

**(5) Appeals.**—(1) Any person aggrieved by an order made by the State Board under this Act may, within thirty day from the date on which the order is communicated to him, prefer an appeal to such authority (hereinafter referred to as the Appellate Authority) as the State Government may think fit to constitute:

Provided that the Appellate Authority may entertain the appeal after the expiry of the said period of thirty days if such authority is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

(2) The Appellate Authority shall consist of a single person or three persons as the State Government may think fit to be appointed by the State Government.

(3) The form and the manner in which an appeal may be preferred under sub-section (1), the fees payable for such appeal and the procedure to be followed by the Appellate Authority shall be such as may be prescribed.

(4) On receipt of an appeal preferred under sub-section (1), the Appellate Authority shall, after giving the appellant and the State Board an opportunity of being heard, dispose of the appeal as expeditiously as possible.

### **1 [31A. Power to give directions**

Notwithstanding anything contained in any other law, but subject to the provisions of this Act and to any directions that the Central Government may give in this behalf, a Board may, in the exercise of its powers and performance of its functions under this Act, issue any directions in writing to any person, officer or authority, and such person, officer or authority shall be bound to comply with such directions.

Explanation.—For the avoidance of doubts, it is hereby declared that the power to issue directions under this section includes the power to direct--

- (a) the closure, prohibition or regulation of any industry, operation or process; or
- (b) the stoppage or regulation of supply of electricity, water or any other service.]

---

1. Inserted by Act 47 of 1987, section 14 (w.e.f. 1-4-1988).

### **1[31B. Appeal to National Green Tribunal.--**

Any person aggrieved by an order or decision of the Appellate Authority under section 31, made on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act.]

---

1. Inserted by the National Green Tribunal Act, 2010.

## CHAPTER V

### FUND, ACCOUNTS AND AUDIT

**32. Contributions by Central Government.**—The Central Government may, after due appropriation made by Parliament by law in this behalf make in each financial year such contributions to the State Boards as it may think necessary to enable the State Boards to perform their functions under this Act:

Provided that nothing in this section shall apply to any <sup>2</sup>[State Pollution Control Board] constituted under section 4 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), which is empowered by that Act to expend money from its fund thereunder also for performing its functions, under any law for the time being in force relating to the prevention, control or abatement of air pollution.

**33. Fund of Board.**—(1) Every State Board shall have its own fund for the purposes of this Act and all sums which may, from time to time, be paid to it by the Central Government and all other receipts (by way of contributions, if any, from the State Government, fees, gifts, grants, donations benefactions or otherwise) of that Board shall be carried to the fund of the Board and all payments by the Board shall be made therefrom.

---

(m) Ins. by Act 47 of 1987, s. 14 (w.e.f. 1-4-1988).

(n) Subs. by s. 15, *ibid.*, for “State Board for the Prevention and Control of water Pollution” (w.e.f. 1-4-1988).

(2) Every State Board may expend such sums as it thinks fit for performing its functions under this Act and such sums shall be treated as expenditure payable out of the fund of that Board.

(3) Nothing in this section shall apply to any <sup>1</sup>[State Pollution Control Board] constituted under section 4 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), which is empowered by that Act to expend money from its fund thereunder also for performing its functions, under any law for the time being in force relating to the prevention, control or abatement of air pollution.

<sup>2</sup>[**33A. Borrowing powers of Board.**—A Board may, with the consent of, or in accordance with the terms of any general or special authority given to it by, the Central Government or, as the case may be, the State Government, borrow money from any source by way of loans or issue of bonds, debentures or such other instruments, as it may deem fit, for discharging all or any of its functions under this Act.]

**34. Budget.**—The Central Board or, as the case may be, the State Board shall, during each financial year, prepare, in such form and at such time as may be prescribed, a budget in respect of the financial year next ensuing showing the estimated receipt and expenditure under this Act, and copies thereof shall be forwarded to the Central Government or, as the case may be, the State Government.

<sup>3</sup>[**35. Annual report.**—(1) The Central Board shall, during each financial year, prepare, in such form as may be prescribed, an annual report giving full account of its activities under this Act during the previous financial year and copies thereof shall be forwarded to the Central Government within four months from the last date of the previous financial year and that Government shall cause every such report to be laid before both Houses of Parliament within nine months of the last date of the previous financial year.

(2) Every State Board shall, during each financial year, prepare, in such form as may be prescribed, an annual report giving full account of its activities under this Act during the previous financial year and copies thereof shall be forwarded to the State Government within four months from the last date of the previous financial year and that Government shall cause every such report to be laid before the State Legislature within a period of nine months from the last date of the previous financial year.]

**36. Accounts and audit.**—(1) Every Board shall, in relation to its functions under this Act, maintain proper accounts and other relevant records and prepare an annual statement of accounts in such form as may be prescribed by the Central Government or, as the case may be, the State Government.

(2) The accounts of the Board shall be audited by an auditor duly qualified to act as an auditor of companies under section 226 of the Companies Act, 1956 (1 of 1956).

(3) The said auditor shall be appointed by the Central Government or, as the case may be, the State Government on the advice of the Comptroller and Auditor General of India.

(4) Every auditor appointed to audit the accounts of the Board under this Act shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect any of the offices of the Board.

(5) Every such auditor shall send a copy of his report together with an audited copy of the accounts to the Central Government or, as the case may be, the State Government.

(6) The Central Government shall, as soon as may be after the receipt of the audit report under sub-section (5), cause the same to be laid before both Houses of Parliament.

(7) The State Government shall, as soon as may be after the receipt of the audit report under sub-section (5), cause the same to be laid before the State Legislature.

---

(g) Subs. by Act 47 of 1987, s. 15, for “State Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

(h) Ins. by s. 16, *ibid.* (w.e.f. 1-4-1988).

(i) Subs. by s. 17, *ibid.*, for section 35 (w.e.f. 1-4-1988).

CHAPTER VI  
PENALTIES AND PROCEDURE

<sup>1</sup>[**37. Failure to comply with the provisions of section 21 or section 22 or with the directions issued under section 31A.**—(1) whoever fails to comply with the provisions of section 21 or section 22 or directions issued under section 31A, shall, in respect of each such failure, be punishable with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and with fine, and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.

(2) If the failure referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine.]

**38. Penalties for certain acts.**—Whoever—

(a) destroys, pulls down, removes, injures or defaces any pillar, post or stake fixed in the ground or any notice or other matter put up, inscribed or placed, by or under the authority of the Board, or

(b) obstructs any person acting under the orders or directions of the Board from exercising his powers and performing his functions under this Act, or

(c) damages any works or property belonging to the Board, or

(d) fails to furnish to the Board or any officer or other employee of the Board any information required by the Board or such officer or other employee for the purpose of this Act, or

(e) fails to intimate the occurrence of the emission of air pollutants into the atmosphere in excess of the standards laid down by the State Board or the apprehension of such occurrence, to the State Board and other prescribed authorities or agencies as required under sub-section (1) of section 23, or

(f) in giving any information which he is required to give under this Act, makes a statement which is false in any material particular, or

(g) for the purpose of obtaining any consent under section 21, makes a statement which is false in any material particular,

shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to <sup>2</sup>[ten thousand rupees] or with both.

<sup>3</sup>[**39. Penalty for contravention of certain provisions of the Act.**—Whoever contravenes any of the provisions of this Act or any order or direction issued thereunder, for which no penalty has been elsewhere provided in this Act, shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to ten thousand rupees or with both, and in the case of continuing contravention, with an additional fine which may extend to five thousand rupees for every day during which such contravention continues after conviction for the first such contravention.]

**40. Offences by companies.**—(1) Where an offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other

(d) Subs. by Act 47 of 1987, s. 18, for section 37 (w.e.f. 1-4-1988).

(e) Subs. by s. 19, *ibid.*, for “five hundred rupees” (w.e.f. 1-4-1988).

(f) Subs. by s. 20, *ibid.*, for section 39 (w.e.f. 1-4-1988).

officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

*Explanation.*—For the purpose of this section,—

(a) “company” means any body corporate, and includes a firm or other association of individuals;

and

(b) “director”, in relation to a firm, means a partner in the firm.

**41. Offences by Government Departments.**—(1) Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

**42. Protection of action taken in good faith.**—No suit, prosecution or other legal proceeding shall lie against the Government or any officer of the Government or any member or any officer or other employee of the Board in respect of anything which is done or intended to be done in good faith in pursuance of this Act or the rules made thereunder.

<sup>1</sup>**43. Cognizance of offences.**—(1) No court shall take cognizance of any offence under this Act except on a complaint made by—

(a) a Board or any officer authorised in this behalf by it; or

(b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint to the Board or officer authorised as aforesaid,

and no court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class shall try any offence punishable under this Act.

(2) Where a complaint has been made under clause (b) of sub-section (1), the Board shall, on demand by such person, make available the relevant reports in its possession to that person:

Provided that the Board may refuse to make any such report available to such person if the same is, in its opinion, against the public interest.]

**a. Members, officers and employees of Board to be public servants.**—All the members and all officers and other employees of a Board when acting or purporting to act in pursuance of any of the provisions of this Act or the rules made thereunder shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code (45 of 1860).

**b. Reports and returns.**—The Central Board shall, in relation to its functions under this Act, furnish to the Central Government, and a State Board shall, in relation to its functions under this Act, furnish to the State Government and to the Central Board such reports, returns, statistics, accounts and other information as that Government, or, as the case may be, the Central Board may, from time to time, require.

**c. Bar of jurisdiction.**—No civil court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which an Appellate Authority constituted under this Act is empowered by or under this Act to determine, and no injunction shall be granted by any court or other authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act.

---

(g) Subs. by Act 47 of 1987, s. 21, for section 43 (w.e.f. 1-4-1988).

CHAPTER VII  
MISCELLANEOUS

**47. Power of State Government to supersede State Board.**—(1) If at any time the State Government is of opinion—

(a) that a State Board constituted under this Act has persistently made default in the performance of the functions imposed on it by or under this Act, or

(b) that circumstances exist which render it necessary in the public interest so to do,

the State Government may, by notification in the Official Gazette, supersede the State Board for such period, not exceeding six months, as may be specified in the notification:

Provided that before issuing a notification under this sub-section for the reasons mentioned in clause (a), the State Government shall give a reasonable opportunity to the State Board to show cause why it should not be superseded and shall consider the explanations and objections, if any, of the State Board.

(2) Upon the publication of a notification under sub-section (1) superseding the State Board,—

(a) all the members shall, as from the date of supersession, vacate their offices as such;

(b) all the powers, functions and duties which may, by or under this Act, be exercised, performed or discharged by the State Board shall, until the State Board is reconstituted under sub-section (3), be exercised, performed or discharged by such person or persons as the State Government may direct;

(c) all property owned or controlled by the State Board shall, until the Board is reconstituted under sub-section (3), vest in the State Government.

(3) On the expiration of the period of supersession specified in the notification issued under sub-section (1), the State Government may—

(a) extend the period of supersession for such further term, not exceeding six months, as it may consider necessary; or

(b) reconstitute the State Board by a fresh nomination or appointment, as the case may be, and in such case any person who vacated his office under clause (a) of sub-section (2) shall also be eligible for nomination or appointment:

Provided that the State Government may at any time before the expiration of the period of supersession, whether originally specified under sub-section (1) or as extended under this sub-section, take action under clause (b) of this sub-section.

**(l) Special provision in the case of supersession of the Central Board or the State Boards constituted under the Water (Prevention and Control of Pollution) Act, 1974.**—Where the Central Board or any State Board constituted under the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974), is superseded by the Central Government or the State Government, as the case may be, under that Act, all the powers, functions and duties of the Central Board or such State Board under this Act shall be exercised, performed or discharged during the period of such supersession by the person or persons, exercising, performing or discharging the powers, functions and duties of the Central Board or such State Board under the Water (Prevention and Control of Pollution) Act, 1974, during such period.

**(m) Dissolution of State Boards constituted under the Act.**—(1) As and when the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974), comes into force in any State and the State Government constitutes <sup>1</sup>[State Pollution Control Board] under that Act, the State Board constituted by the State Government under this Act shall stand dissolved and the Board first-mentioned shall exercise the powers and perform the functions of the Board second-mentioned in that State.

(2) On the dissolution of the State Board constituted under this

Act,—(a) all the members shall vacate their offices as such;

1. Subs. by Act 47 of 1987, s. 15, for “State Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

(b) all moneys and other property of whatever kind (including the fund of the State Board) owned by, or vested in, the State Board, immediately before such dissolution, shall stand transferred to and vest in the <sup>1</sup>[State Pollution Control Board];

(c) every officer and other employee serving under the State Board immediately before such dissolution shall be transferred to and become an officer or other employee of the <sup>1</sup>[State Pollution Control Board] and hold office by the same tenure and at the same remuneration and on the same terms and conditions of service as he would have held the same if the State Board constituted under this Act had not been dissolved and shall continue to do so unless and until such tenure, remuneration and terms and conditions of service are duly altered by the <sup>1</sup>[State Pollution Control Board]:

Provided that the tenure, remuneration and terms and conditions of service of any such officer or other employee shall not be altered to his disadvantage without the previous sanction of the State Government;

(d) all liabilities and obligations of the State Board of whatever kind, immediately before such dissolution, shall be deemed to be the liabilities or obligations, as the case may be, of the <sup>1</sup>[State Pollution Control Board] and any proceeding or cause of action, pending or existing immediately before such dissolution by or against the State Board constituted under this Act in relation to such liability or obligation may be continued and enforced by or against the <sup>1</sup>[State Pollution Control Board.]

**50.** *[Power to amend the Schedule.]—Omitted by the Air (Prevention and Control of Pollution) Amendment Act, 1987 (47 of 1987), s. 22 (w.e.f. 1-4-1988).*

**51. Maintenance of register.**—(1) Every State Board shall maintain a register containing particulars of the persons to whom consent has been granted under section 21, the standards for emission laid down by it in relation to each such consent and such other particulars as may be prescribed.

(2) The register maintained under sub-section (1) shall be open to inspection at all reasonable hours by any person interested in or affected by such standards for emission or by any other person authorised by such person in this behalf.

(j) **Effect of other laws.**—Save as otherwise provided by or under the Atomic Energy Act, 1962 (33 of 1962), in relation to radioactive air pollution the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act.

(k) **Power of Central Government to make rules.**—(1) The Central Government may, in consultation with the Central Board, by notification in the Official Gazette, make rules in respect of the following matters, namely:—

(a) the intervals and the time and place at which meetings of the Central Board or any committee thereof shall be held and the procedure to be followed at such meetings, including the quorum necessary for the transaction of business thereat, under sub-section (1) of section 10 and under sub-section (2) of section 11;

(b) the fees and allowances to be paid to the members of a committee of the Central Board, not being members of the Board, under sub-section (3) of section 11;

(c) the manner in which and the purposes for which persons may be associated with the Central Board under sub-section (1) of section 12;

(d) the fees and allowance to be paid under sub-section (3) of section 12 to persons associated with the Central Board under sub-section (1) of section 12;

(e) the functions to be performed by the Central Board under clause (j) of sub-section (2) of section 16;

---

1. Subs. by Act 47 of 1987, s. 15 for “State Board for the Prevention and Control of Water Pollution” (w.e.f. 1-4-1988).

<sup>1</sup>[(f) the form in which and the time within which the budget of the Central Board may be prepared and forwarded to the Central Government under section 34;

(ff) the form in which the annual report of die Central Board may be prepared under section 35;]

(g) the form in which the accounts of the Central Board may be maintained under sub-section (I) of section 36.

(2) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

**54. Power of State Government to make rules.**—(1) Subject to the provisions of sub-section (3), the State Government may, by notification in the Official Gazette, make rules to carry out the purposes of this Act in respect of matter not falling within the purview of section 53.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely—

<sup>2</sup>[(a) the qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control required for appointment as member-secretary of a State Board constituted under the Act;]

<sup>3</sup>[(aa)] the terms and conditions of service of the Chairman and other members (other than the member-secretary) of the State Board constituted under this Act under sub-section (7) of section 7;

(b) the intervals and the time and place at which meetings of the State Board or any committee thereof shall be held and the procedure to be followed at such meetings, including the quorum necessary for the transaction of business thereat, under sub-section (1) of section 10 and under sub-section (2) of section 11;

(c) the fees and allowances to be paid to the members of a committee of the State Board, not being members of the Board under sub-section (3) of section 11;

(d) the manner in which and the purpose for which persons may be associated with the State Board under sub-section (1) of section 12;

(e) the fees and allowances to be paid under sub-section (3) of section 12 to persons associated with the State Board under sub-section (1) of section 12;

(f) the terms and conditions of service of the member-secretary of a State Board constituted under this Act under sub-section (1) of section 14;

(g) the powers and duties to be exercised and discharged by the member-secretary of a State Board under sub-section (2) of section 14;

(h) the conditions subject to which a State Board may appoint such officers and other employees as it considers necessary for the efficient performance of its functions under sub-section (3) of section 14;

(i) the conditions subject to which a State Board may appoint a consultant under sub-section (5) of section 14;

(j) the functions to be performed by the State Board under clause (i) of sub-section (1) of section 17;

(h) Subs. by Act 47 of 1987, s. 23, for clause (f) (w.e.f. 1-4-1988).

(i) Ins. by s. 24, *ibid.* (w.e.f. 1-4-1988).

(j) Clause (a) renumbered as clause (aa) thereof by s. 24, *ibid.* (w.e.f. 1-4-1988).

(k) the manner in which any area or areas may be declared as air pollution control area or areas under sub-section (1) of section 19;

(l) the form of application for the consent of the State Board, the fees payable therefore the period within which such application shall be made and the particulars it may contain, under sub-section (2) of section 21;

(m) the procedure to be followed in respect of an inquiry under sub-section (3) of section 21;

(n) the authorities or agencies to whom information under sub-section (1) of section 23 shall be furnished;

(o) the manner in which samples of air or emission may be taken under sub-section (1) of section 26;

(p) the form of the notice referred to in sub-section (3) of section 26;

(q) the form of the report of the State Board analyst under sub-section (1) of section 27;

(r) the form of the report of the Government analyst under sub-section (3) of section 27;

(s) the functions of the State Air Laboratory, the procedure for the submission to the said Laboratory of samples of air or emission for analysis or tests, the form of Laboratory's report thereon, the fees payable in respect of such report and other matters as may be necessary or expedient to enable that Laboratory to carry out its functions, under sub-section (2) of section 28;

(t) the qualifications required for Government analysts under sub-section (1) of section 29; (u)

the qualification required for State Board analysts under sub-section (2) of section 29;

(v) the form and the manner in which appeals may be preferred, the fees payable in respect of such appeals and the procedure to be followed by the Appellate Authority in disposing of the appeals under sub-section (3) of section 31;

<sup>1</sup>[(w) the form in which and the time within which the budget of the State Board may be prepared and forwarded to the State Government under section 34;

(ww) the form in which the annual report of the State Board may be prepared under section 35;]

(x) the form in which the accounts of the State Board may be maintained under the sub-section (1) of section 36;

<sup>2</sup>[(xx) the manner in which notice of intention to make a complaint shall be given under section 43;]

(y) the particulars which the register maintained under section 51 may

contain; (z) any other matter which has to be, or may be, prescribed.

(3) After the first constitution of the State Board, no rule with respect to any of the matters referred to in sub-section (2) [other than those referred to <sup>3</sup>[[in clause (aa)]] thereof], shall be made, varied, amended or repealed without consulting that Board.

[*The Schedule.*].—Omitted by the Air (Prevention and Control of Pollution) Amendment Act, 1987 (47 of 1987), s. 25 (w.e.f. 1-4-1988)

(f) Subs. by Act 47 of 1987, s. 24, for clause (w) (w.e.f. 1-4-1988).

(g) Ins. by s. 24, *ibid.* (w.e.f. 1-4-1988).

(h) Subs. by s. 24, *ibid.*, for "in clause (a)" (w.e.f. 1-4-1988).



## Ministry of Environment and Forests

### Notification

New Delhi, the 25<sup>th</sup> September, 2000

**S.O. 908(E).**- Whereas the draft of the Municipal Solid Wastes (Management and Handling) Rules, 1999 were published under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 783(E), dated, the 27<sup>th</sup> September, 1999 in the Gazette of India, Part II, Section 3, Sub-section (ii) of the same date inviting objections and suggestions from the persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which the copies of the

Gazette containing the said notification are made available to the public;

And whereas copies of the said Gazette were made available to the public on the 5<sup>th</sup> October, 1999;

And whereas the objections and suggestions received from the public in respect of the said draft rules have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by section 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules to regulate the management and handling of the municipal solid wastes, namely :-

#### 1. Short title and commencement .--

1. These rules may be called the Municipal Solid Wastes (Management and Handling) Rules, 2000.
2. Save as otherwise provided in these rules, they shall come into force on the date of their publication in the Official Gazette.

**2. Application .--** These rules shall apply to every municipal authority responsible for collection, segregation, storage, transportation,, processing and disposal of municipal solid wastes .

#### 3. Definitions.-- In these rules, unless the context otherwise requires,--

- i. **"anaerobic digestion"** means a controlled process involving microbial decomposition of organic matter in the absence of oxygen;
- ii. **"authorization"** means the consent given by the Board or Committee to the "operator of a facility" ;
- iii. **"biodegradable substance"** means a substance that can be degraded by micro-organisms;
- iv. **"biomethanation"** means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;
- v. **"collection"** means lifting and removal of solid wastes from collection points or any other location;
- vi. **"composting"** means a controlled process involving microbial decomposition of organic matter;
- vii. **"demolition and construction waste"** means wastes from building materials debris and rubble resulting from construction, re-modelling, repair and demolition operation;
- viii. **"disposal"** means final disposal of municipal solid wastes in terms of the specified measures to prevent contamination of ground-water, surface water and ambient air quality;
- ix. **"Form"** means a Form appended to these rules;
- x. **"generator of wastes"** means persons or establishments generating municipal solid wastes;
- xi. **"landfilling"** means disposal of residual solid wastes on land in a facility designed with protective measures against pollution of ground water, surface water and air fugitive dust, wind-blown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion;
- xii. **"leachate"** means liquid that seeps through solid wastes or other medium and has

- extracts of dissolved or suspended material from it;
- xiii. "**lysimeter**" is a device used to measure rate of movement of water through or from a soil layer or is used to collect percolated water for quality analysis;
  - xiv. "**municipal authority**" means Municipal Corporation, Municipality, Nagar Palika, Nagar Nigam, Nagar Panchayat, Municipal Council including notified area committee (NAC) or any other local body constituted under the relevant statutes and, where the management and handling of municipal solid waste is entrusted to such agency;
  - xv. "**municipal solid waste**" includes commercial and residential wastes generated in a municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes;
  - xvi. "**operator of a facility**" means a person who owns or operates a facility for collection, segregation, storage, transportation, processing and disposal of municipal solid wastes and also includes any other agency appointed as such by the municipal authority for the management and handling of municipal solid wastes in the respective areas;
  - xvii. "**pelletisation**" means a process whereby pellets are prepared which are small cubes or cylindrical pieces made out of solid wastes and includes fuel pellets which are also referred as refuse derived fuel;
  - xviii. "**processing**" means the process by which solid wastes are transformed into new or recycled products;
  - xix. "**recycling**" means the process of transforming segregated solid wastes into raw materials for producing new products, which may or may not be similar to the original products;
  - xx. "**Schedule**" means a Schedule appended to these rules;
  - xxi. "**segregation**" means to separate the municipal solid wastes into the groups of organic, inorganic, recyclables and hazardous wastes;
  - xxii. "**State Board or the Committee**" means the State Pollution Control Board of a State, or as the case may be, the Pollution Control Committee of a Union territory;
  - xxiii. "**storage**" means the temporary containment of municipal solid wastes in a manner so as to prevent littering, attraction to vectors, stray animals and excessive foul odour;
  - xxiv. "**transportation**" means conveyance of municipal solid wastes from place to place hygienically through specially designed transport system so as to prevent foul odour, littering, unsightly conditions and accessibility to vectors;
  - xxv. "**vadose water**" water which occurs between the ground, surface and the water table that is the unsaturated zone;
  - xxvi. "**vermicomposting**" is a process of using earthworms for conversion of bio-degradable wastes into compost.

#### 4. Responsibility of municipal authority .-

1. Every municipal authority shall, within the territorial area of the municipality, be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes.
2. The municipal authority or an operator of a facility shall make an application in **Form-I**, for grant of authorization for setting up waste processing and disposal facility including landfills from the State Board or the Committee in order to comply with the implementation programme laid down in **Schedule I**.
3. The municipal authority shall comply with these rules as per the implementation schedule laid down in **Schedule I**.

#### (4) The municipal authority shall furnish its annual report in **Form-II**,-

- a. to the Secretary-in-charge of the Department of Urban Development of the concerned State or as the case may be of the Union territory, in case of a metropolitan city; or
- b. to the District Magistrate or the Deputy Commissioner concerned in case of all other towns and cities, with a copy to the State Board or the Committee on or before the 30<sup>th</sup> day of June every year.

## 5. Responsibility of the State Government and the Union territory Administrations

(1) The Secretary-in-charge of the Department of Urban Development of the concerned State or the Union territory, as the case may be, shall have the overall responsibility for the enforcement of the provisions of these rules in the metropolitan cities.

(2) The District Magistrate or the Deputy Commissioner of the concerned district shall have the overall responsibility for the enforcement of the provisions of these rules within the territorial limits of their jurisdiction.

## 6. Responsibility of the Central Pollution Control Board and the State Board or the Committees .—

1. The State Board or the Committee shall monitor the compliance of the standards regarding ground water, ambient air, leachate quality and the compost quality including incineration standards as specified under **Schedules II, III and IV**.
2. The State Board or the Committee, after the receipt of application from the municipal authority or the operator of a facility in **Form I**, for grant of authorization for setting up waste processing and disposal facility including landfills, shall examine the proposal taking into consideration the views of other agencies like the State Urban Development Department, the Town and Country Planning Department, Air Port or Air Base Authority, the Ground Water Board or any such other agency prior to issuing the authorization.
3. The State Board or the Committee shall issue the authorization in **Form-III** to the municipal authority or an operator of a facility within forty-five days stipulating compliance criteria and standards as specified in **Schedules II, III and IV** including such other conditions, as may be necessary.
4. The authorization shall be valid for a given period and after the validity is over, a fresh authorization shall be required.

(5) The Central Pollution Control Board shall co-ordinate with the State Boards and the Committees with particular reference to implementation and review of standards and guidelines and compilation of monitoring data.

## 7. Management of municipal solid wastes .--

1. Any municipal solid waste generated in a city or a town, shall be managed and handled in accordance with the compliance criteria and the procedure laid down in **Schedule-II**.

(2) The waste processing and disposal facilities to be set up by the municipal authority on their own or through an operator of a facility shall meet the specifications and standards as specified in **Schedules III and IV**.

## 8. Annual Reports .—

1. The State Boards and the Committees shall prepare and submit to the Central Pollution Control Board an annual report with regard to the implementation of these rules by the 15<sup>th</sup> of September every year in **Form-IV**.
2. The Central Pollution Control Board shall prepare the consolidated annual review report on management of municipal solid wastes and forward it to the Central

Government alongwith its recommendations before the 15<sup>th</sup> of December every year.

**9. Accident Reporting .--** When an accident occurs at any municipal solid wastes collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such wastes, the municipal authority shall forthwith report the accident in **Form-V** to the Secretary in-charge of the Urban Development Department in metropolitan cities, and to District Collector or Deputy Commissioner in all other cases.

---

## Schedule I

[see rules 4(2) and (3)]

**Implementation Schedule**

<b>Serial No.</b>	<b>Compliance Criteria</b>	<b>Schedule</b>
1.	Setting up of waste processing and disposal facilities	By 31.12.2003 or earlier
2.	Monitoring the performance of waste processing and disposal facilities	Once in six months
3.	Improvement of existing landfill sites as per provisions of these rules	By 31.12.2001 or earlier
4.	Identification of landfill sites for future use and making site (s) ready for operation	By 31.12.2002 or earlier

**Schedule -II**

[see rules 6(1) and (3), 7(1)]

**Management of Municipal Solid Wastes**

<b>S.no</b>	<b>Parameters</b>	<b>Compliance criteria</b>
1.	<b>Collection of</b>	1. Littering of municipal solid waste shall be prohibited in cities, towns and in urban areas notified by the State Governments To

	<b>wastes</b>	<p>prohibit littering and facilitate compliance, the following steps shall be taken by the municipal authority, namely :-</p> <ol style="list-style-type: none"> <li>i. Organising house-to-house collection of municipal solid wastes through any of the methods, like community bin collection (central bin), house-to-house collection, collection on regular pre-informed timings and scheduling by using bell ringing of musical vehicle (without exceeding permissible noise levels);</li> <li>ii. Devising collection of waste from slums and squatter areas or localities including hotels, restaurants, office complexes and commercial areas;</li> <li>iii. Wastes from slaughter houses, meat and fish markets, fruits and vegetable markets, which are biodegradable in nature, shall be managed to make use of such wastes;</li> <li>iv. Bio-medical wastes and industrial wastes shall not be mixed with municipal solid wastes and such wastes shall follow the rules separately specified for the purpose;</li> <li>v. Collected waste from residential and other areas shall be transferred to community bin by hand-driven containerised carts or other small vehicles;</li> <li>vi. Horticultural and construction or demolition wastes or debris shall be separately collected and disposed off following proper norms. Similarly, wastes generated at dairies shall be regulated in accordance with the State laws;</li> <li>vii. Waste (garbage, dry leaves) shall not be burnt;</li> <li>viii. Stray animals shall not be allowed to move around waste storage facilities or at any other place in the city or town and shall be managed in accordance with the State laws.</li> </ol> <p>2. The municipal authority shall notify waste collection schedule and the likely method to be adopted for public benefit in a city or town.</p> <p>3. It shall be the responsibility of generator of wastes to avoid littering and ensure delivery of wastes in accordance with the collection and segregation system to be notified by the municipal authority as per para 1(2) of this Schedule.</p>
2.	Segregation of municipal solid wastes	<p>In order to encourage the citizens, municipal authority shall organise awareness programmes for segregation of wastes and shall promote recycling or reuse of segregated materials.</p>

		ensure community participation in waste segregation. For this purpose, regular meetings at quarterly intervals shall be arranged by the municipal authorities with representatives of local resident welfare associations and non-governmental organizations.
<b>3.</b>	<b>Storage of municipal solid wastes</b>	<p>Municipal authorities shall establish and maintain storage facilities in such a manner as they do not create unhygienic and insanitary conditions around it. Following criteria shall be taken into account while establishing and maintaining storage facilities, namely :-</p> <ol style="list-style-type: none"> <li>i. Storage facilities shall be created and established by taking into account quantities of waste generation in a given area and the population densities. A storage facility shall be so placed that it is accessible to users;</li> <li>ii. Storage facilities to be set up by municipal authorities or any other agency shall be so designed that wastes stored are not exposed to open atmosphere and shall be aesthetically acceptable and user-friendly;</li> <li>iii. Storage facilities or 'bins' shall have 'easy to operate' design for handling, transfer and transportation of waste. Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;</li> <li>iv. Manual handling of waste shall be prohibited. If unavoidable due to constraints, manual handling shall be carried out under proper precaution with due care for safety of workers.</li> </ol>
<b>4.</b>	<b>Transportation of municipal solid wastes</b>	<p>Vehicles used for transportation of wastes shall be covered. Waste should not be visible to public, nor exposed to open environment preventing their scattering. The following criteria shall be met, namely:-</p> <ol style="list-style-type: none"> <li>i. The storage facilities set up by municipal authorities shall be daily attended for clearing of wastes. The bins or containers wherever placed shall be cleaned before they start overflowing;</li> <li>ii. Transportation vehicles shall be so designed that multiple handling of wastes, prior to final disposal, is avoided.</li> </ol>
<b>5.</b>	<b>Processing of</b>	Municipal authorities shall adopt suitable technology or combination of such technologies to make use of wastes so as to

	<b>wastes</b>	<p>minimize burden on landfill. Following criteria shall be adopted, namely:-</p> <p>(i) The biodegradable wastes shall be processed by composting, vermicomposting, anaerobic digestion or any other appropriate biological processing for stabilization of wastes. It shall be ensured that compost or any other end product shall comply with standards as specified in Schedule-IV;</p> <p>ii. Mixed waste containing recoverable resources shall follow the route of recycling. Incineration with or without energy recovery including pelletisation can also be used for processing wastes in specific cases. Municipal authority or the operator of a facility wishing to use other state-of-the-art technologies shall approach the Central Pollution Control Board to get the standards laid down before applying for grant of authorisation.</p>
<b>6.</b>	<b>Disposal of municipal solid wastes</b>	<p>Land filling shall be restricted to non-biodegradable, inert waste and other waste that are not suitable either for recycling or for biological processing. Land filling shall also be carried out for residues of waste processing facilities as well as pre-processing rejects from waste processing facilities. Land filling of mixed waste shall be avoided unless the same is found unsuitable for waste processing. Under unavoidable circumstances or till installation of alternate facilities, land-filling shall be done following proper norms. Landfill sites shall meet the specifications as given in Schedule –III.</p>

**Schedule III**  
[see rules 6(1) and (3), 7(2)]

**Specifications for Landfill Sites**

**Site Selection**

1. In areas falling under the jurisdiction of ‘Development Authorities’ it shall be the responsibility of such Development Authorities to identify the landfill sites and hand over the sites to the concerned municipal authority for development, operation and maintenance. Elsewhere, this responsibility shall lie with the concerned municipal authority.
2. Selection of landfill sites shall be based on examination of environmental issues. The Department of Urban Development of the State or the Union territory shall co-ordinate with the concerned organisations for obtaining the necessary approvals and clearances.
3. The landfill site shall be planned and designed with proper documentation of a phased construction plan as well as a closure plan.
4. The landfill sites shall be selected to make use of nearby wastes processing facility. Otherwise, wastes processing facility shall be planned as an integral part of the landfill site.
5. The existing landfill sites which continue to be used for more than five years, shall be improved in accordance of the specifications given in this Schedule.
6. Biomedical wastes shall be disposed off in accordance with the Bio-medical Wastes (Management and Handling) Rules, 1998 and hazardous wastes shall be managed in

accordance with the Hazardous Wastes (Management and Handling ) Rules, 1989, as amended from time to time.

7. The landfill site shall be large enough to last for 20-25 years.
8. The landfill site shall be away from habitation clusters, forest areas, water bodies monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.
9. A buffer zone of no-development shall be maintained around landfill site and shall be incorporated in the Town Planning Department's land-use plans.
10. Landfill site shall be away from airport including airbase. Necessary approval of airport or airbase authorities prior to the setting up of the landfill site shall be obtained in cases where the site is to be located within 20 km of an airport or airbase..

#### Facilities at the Site

11. Landfill site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles or other modes of transportation.
12. The landfill site shall be well protected to prevent entry of unauthorised persons and stray animals.
13. Approach and other internal roads for free movement of vehicles and other machinery shall exist at the landfill site.
14. The landfill site shall have wastes inspection facility to monitor wastes brought in for landfill, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipments.
15. Provisions like weigh bridge to measure quantity of waste brought at landfill site, fire protection equipments and other facilities as may be required shall be provided.
16. Utilities such as drinking water (preferably bathing facilities for workers) and lighting arrangements for easy landfill operations when carried out in night hours shall be provided.
17. Safety provisions including health inspections of workers at landfill site shall be periodically made.



### Specifications for land filling

18. Wastes subjected to land filling shall be compacted in thin layers using landfill compactors to achieve high density of the wastes. In high rainfall areas where heavy compactors cannot be used alternative measures shall be adopted.
19. Wastes shall be covered immediately or at the end of each working day with minimum 10 cm of soil, inert debris or construction material till such time waste processing facilities for composting or recycling or energy recovery are set up as per Schedule I.
20. Prior to the commencement of monsoon season, an intermediate cover of 40-65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon. Proper drainage berms shall be constructed to divert run-off away from the active cell of the landfill.
21. After completion of landfill, a final cover shall be designed to minimize infiltration and erosion. The final cover shall meet the following specifications, namely :--
  - a. The final cover shall have a barrier soil layer comprising of 60 cms of clay or amended soil with permeability coefficient less than  $1 \times 10^{-7}$  cm/sec.
  - b. On top of the barrier soil layer there shall be a drainage layer of 15 cm.
  - c. On top of the drainage layer there shall be a vegetative layer of 45 cm to support natural plant growth and to minimize erosion.

### Pollution prevention

22. In order to prevent pollution problems from landfill operations, the following provisions shall be made, namely :-
  - a. Diversion of storm water drains to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions;
  - b. Construction of a non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) minimum liner specifications shall be a composite barrier having 1.5 mm high density polyethylene (HDPE) geomembrane, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than  $1 \times 10^{-7}$  cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer;
  - c. Provisions for management of leachates collection and treatment shall be made. The treated leachates shall meet the standards specified in Schedule- IV;
  - d. Prevention of run-off from landfill area entering any stream, river, lake or pond.

### Water Quality Monitoring

23. Before establishing any landfill site, baseline data of ground water quality in the area shall be collected and kept in record for future reference. The ground water quality within 50 metres of the periphery of landfill site shall be periodically monitored to ensure that the ground water is not contaminated beyond acceptable limit as decided by the Ground Water Board or the State Board or the Committee. Such monitoring shall be carried out to cover different seasons in a year that is, summer, monsoon and post-monsoon period.
24. Usage of groundwater in and around landfill sites for any purpose (including drinking and irrigation) is to be considered after ensuring its quality. The following specifications for drinking water quality shall apply for monitoring purpose, namely :-

S.No.	Parameters	IS 10500: 1991 Desirable limit ( mg/l except for pH)
1.	Arsenic	0.05
2.	Cadmium	0.01
3	Chromium	0.05
4.	Copper	0.05
5.	Cyanide	0.05
6.	Lead	0.05
7.	Mercury	0.001
8.	Nickel	-
9.	Nitrate as NO <sub>3</sub>	45.0
10	PH	6.5-8.5
11.	Iron	0.3
12.	Total hardness (as CaCO <sub>3</sub> )	300.0
13.	Chlorides	250
14.	Dissolved solids	500
15.	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	0.001
16.	Zinc	5.0
17.	Sulphate (as SO <sub>4</sub> )	200

25. Ambient Air Quality Monitoring

26. Installation of landfill gas control system including gas collection system shall be made at landfill site to minimize odour generation, prevent off-site migration of gases and to protect vegetation planted on the rehabilitated landfill surface.
27. The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL).
28. The landfill gas from the collection facility at a landfill site shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to directly escape to the atmosphere or for illegal tapping. Passive venting shall be allowed if its utilization or flaring is not possible.
29. Ambient air quality at the landfill site and at the vicinity shall be monitored to meet the following specified standards, namely :-

S.No.	Parameters	Acceptable levels
(i)	Sulphur dioxide	120 120 $\mu\gamma/\mu^3$ ( 24 ηουρσ)
(ii)	Suspended Particulate Matter	500 $\mu\gamma/\mu^3$ (24 ηουρσ)
(iii)	Methane	Not to exceed 25 per cent of the lower explosive limit (equivalent to 650 $\text{mg}/\text{m}^3$ )
(iv)	Ammonia daily average	
	(Sample duration 24 hrs)	0.4 $\text{mg}/\text{m}^3$ (400 $\mu\gamma/\mu^3$ )
(v)	Carbon monoxide	1 hour average : 2 $\text{mg}/\text{m}^3$ 8 hour average : 1 $\text{mg}/\text{m}^3$

29. The ambient air quality monitoring shall be carried out by the concerned authority as per the following schedule, namely:-

- (a) Six times in a year for cities having population of more than fifty lakhs;
- (b) Four times in a year for cities having population between ten and fifty lakhs;
- (c) Two times in a year for town or cities having population between one and ten lakhs.

#### Plantation at Landfill Site

30. A vegetative cover shall be provided over the completed site in accordance with the and following specifications, namely :-

- (a) Selection of locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be allowed to grow;
- (b) The plants grown be such that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilised;
- (c) Selected plants shall have ability to thrive on low-nutrient soil with minimum nutrient addition;
- (d) Plantation to be made in sufficient density to minimize soil erosion.

#### Closure of Landfill Site and Post-care

31. The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :-

- (a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover;
- (b) Monitoring leachate collection system in accordance with the requirement;
- (c) Monitoring of ground water in accordance with requirements and maintaining ground water quality;
- (d) Maintaining and operating the landfill gas collection system to meet the standards.

32. Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous and leachate analysis comply with the specified standards.

Special provisions for hilly areas

33. Cities and towns located on hills shall have location-specific methods evolved for final disposal of solid wastes by the municipal authority with the approval of the concerned State Board or the Committee. The municipal authority shall set up processing facilities for utilization of biodegradable organic wastes. The inert and non-biodegradable waste shall be used for building roads or filling-up of appropriate areas on hills. Because of constraints in finding adequate land in hilly areas, wastes not suitable for road-laying or filling up shall be disposed of in specially designed landfills.

Schedule IV

[see rules 6(1) and (3), 7(2)]

**Standards for Composting, Treated Leachates and Incineration**

1. The waste processing or disposal facilities shall include composting, incineration, pelletisation, energy recovery or any other facility based on state-of-the-art technology duly approved by the Central Pollution Control Board
  2. In case of engagement of private agency by the municipal authority, a specific agreement between the municipal authority and the private agency shall be made particularly, for supply of solid waste and other relevant terms and conditions.
  3. In order to prevent pollution problems from compost plant and other processing facilities, the following shall be complied with, namely :-
    - i. The incoming wastes at site shall be maintained prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility;
    - ii. Necessary precautions shall be taken to minimise nuisance of odour, flies, rodents, bird menace and fire hazard;
    - iii. In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of wastes to the landfill site;
    - iv. Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclables shall be sent for well designed landfill site(s).
    - v. In case of compost plant, the windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay, 50 cm thick, having permeability coefficient less than  $10^{-7}$  cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off;
    - vi. Ambient air quality monitoring shall be regularly carried out particularly for checking odour nuisance at down-wind direction on the boundary of processing plant.
- In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely:-

Parameters	Concentration not to exceed * (mg/kg dry basis , except pH value and C/N ratio)
Arsenic	10.00

Cadmium	5.00
Chromium	50.00
Copper	300.0 0
Lead	100.0 0
Mercury	0.15
Nickel	50.00
Zinc	1000.00
C/N ratio	20-40
PH	5.5- 8.5

\* Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

4. The disposal of treated leachates shall follow the following standards, namely:-

S.No	Parameter	Standards ( Mode of Disposal )		
		Inland surface water	Public sewers	Land disposal
1.	Suspended solids, mg/l, max	100	600	200
2.	Dissolved solids (inorganic) mg/l, max.	2100	2100	2100
3	PH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
4	Ammonical nitrogen (as N), mg/l, max.	50	50	-
5	Total Kjeldahl nitrogen (as N)	100	-	-

	mg/l, max.			
6	Biochemical oxygen demand ( 3 days at 27 <sup>0</sup> C) max.(mg/l)	30	350	100
7	Chemical oxygen demand, mg/l, max.	250	-	-
8	Arsenic (as As), mg/l, max	0.2	0.2	0.2
9	Mercury (as Hg), mg/l, max	0.01	0.01	-
10	Lead (as Pb), mg/l, max	0.1	1.0	-
11	Cadmium (as Cd), mg/l, max	2.0	1.0	-
12	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13	Copper (as Cu), mg/l, max.	3.0	3.0	-
14	Zinc (as Zn), mg/l, max.	5.0	15	-
15	Nickel (as Ni), mg/l, max	3.0	3.0	-
16	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17	Chloride (as Cl), mg/l, max.	1000	1000	600
18	Fluoride (as F), mg/l, max	2.0	1.5	-
19	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, max.	1.0	5.0	-

Note : While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

The incinerators shall meet the following operating and emission standards, namely:-

#### A. Operating Standards

- (1) The combustion efficiency (CE) shall be at least 99.00%.
- (2) The combustion efficiency is computed as follows :

$$\%C O_2$$

$$C.E. = \frac{\text{-----}}{\%CO_2 + \%CO} \times 100$$

**1. Emission Standards**

<u>Parameters</u> (12% CO <sub>2</sub> correction)	<u>Concentration mg/Nm<sup>3</sup> at</u>
(1) Particulate matter	
(2) Nitrogen Oxides	
(3) HCl	
(4) Minimum stack height shall be 30 metres above ground.	
(5) Volatile organic compounds in ash shall not be more than 0.01%.	

Note :

1. Suitably designed pollution control devices shall be installed or retrofitted with the incinerator to achieve the above emission limits, if necessary.
2. wastes to be incinerated shall not be chemically treated with any chlorinated disinfectants
3. Chlorinated plastics shall not be incinerated.
4. Toxic metals in incineration ash shall be limited within the regulatory quantities as specified in the Hazardous Wastes (Management and Handling) Rules, 1989 as amended from time to time.
5. Only low sulphur fuel like l.d.o., l.s.h.s or Diesel shall be used as fuel in the incinerator.

Form –I

[see rules 4(2) & 6(2)]

**Application for obtaining authorization**

To,  
The Member Secretary  
-----  
-----

1.	Name of the municipal authority/Name of the agency appointed by the municipal authority	:	
2.	Correspondence address  TelephoneNo.  Fax No.	:	
3.	Nodal Officer & designation(Officer authorised by the municipal authority or agency responsible for operation of processing or disposal facility)	:	
4.	Authorization applied for (Please tick mark)		(a) Setting up & operation of waste rocessing facility.  (b) Setting up & operation of disposal facility

5.	Detailed proposal of waste processing/disposal facility (to be attached ) to include		
5.1	<p><b>Processing of Waste</b></p> <ul style="list-style-type: none"> <li>i. Location of site</li> <li>ii. Name of waste processing technology</li> <li>iii. Details of processing technology</li> <li>iv. Quantity of waste to be processed per day</li> <li>v. Site clearance (from local authority)</li> <li>vi. Details of agreement between municipal authority and operating agency</li> <li>vii. Utilization programme for waste processed (Product utilization)</li> <li>viii. Methodology for disposal of waste processing rejects (quantity and quality)</li> <li>ix. Measures to be taken for prevention and control of environmental pollution</li> <li>x. Investment on Project and expected returns</li> <li>xi. Measures to be taken for safety of workers working in the plant</li> </ul>	:	
5.2	<p><b>Disposal of Waste</b></p> <ul style="list-style-type: none"> <li>i. Number of sites indentified</li> <li>ii. Layout maps of site</li> <li>iii. Quantity of waste to be disposed per day</li> <li>iv. Nature and composition of waste</li> <li>v. Details of methodology or criteria followed for site selection</li> <li>vi. Details of existing site under operation</li> <li>vii. Methodology and operational details of landfilling</li> </ul>	:	
	viii. Measures taken to check enviornmental pollution		
Date		Signature of Nodal Officer	

Form - II

[See rule 4(4)]

Format of Annual Report to be submitted by the Municipal Authority

- i. Name of City/Town:.....
- ii. Population .....
- iii. Name of municipal body:..... and Address .....
- Telephone No. : .....
- Fax : .....
- iv. Name of Incharge dealing with municipal solid wastes ..... with designation .....



**1. Quantity and composition of solid wastes**

(i) Total quantity of wastes generated per day

-----

(ii) Total quantity of wastes collected per day

-----

(iii) Total quantity of wastes processed for :

- a. Composting: .....
- b. Vermiculture: .....
- c. Pellets: .....
- d. Others, if any, please specify  
.....

(iv) Total quantity of waste disposed by landfilling:

.....

a. no. of landfill sites used :

.....

b. Area used: .....

c. Whether Weigh bridge facilities available : Yes/No

a. Whether area is fenced : Yes/No

a. Lighting facility on site : Yes/No

(f) Whether equipment like Bulldozer, Compacters etc.available. (Please specify) :-

-----

a. Total Manpower available on site: -----

a. Whether covering is done on daily basis : Yes/No

i. Whether covering material is used and whether it is adequately available :

-----

a. Provisions for gas venting provided : Available (Yes/No) /Not available

a. Provision for leachate collection : Provisions made/ Provisions not made

**2. Storage facilities**

(i) Area covered for collection of wastes : -----

(ii) no. of houses covered : -----

(iii) Whether house-to-house collection is practised (if : -----

yes, whether done by Municipality or through Private Agency or Non-Governmental Organisation)

(iv) Bins : -----

Specifications Existing Proposed

(Shape & Size) Numbers for future

-----

- a. RCC Bins (Capacity) :
- b. Trolleys (Capacity) :
- (c) Containers (Capacity) :
- d. Dumper Placers :
- e. Others, please specify :

(v) Whether all bins/collection spots are attended for daily lifting of garbage : Yes/No

(vi) Whether lifting of garbage from dustbins is manual or mechanical i.e. for example by using of front-end loaders (Please tick mark) : Manual/Loader/Others, please specify

### 3. Transportation

	Existing number	Actually Required/Proposed
(i) Truck :		
(ii) Truck-Tipper :		
(iii) Tractor-Trailer :		
(iv) Refuse-collector :		
(v) Dumper-placers :		
(vi) Animal Cart :		
(vii) Tricycle :		
(viii) Others (please specify) :		

### 4. Whether any proposal has been made to improve solid wastes management practices

#### 4. Are any efforts made to call for private firms etc. to attempt for processing of waste utilising technologies like :

	Waste Utilisation Technology	Proposals	Steps taken (Quantity to be processed)
i. Composting :			
ii. Vermiculture :			
iii. Pelletisation :			
iv. Others if any, Please specify :			

6. What provisions are available and how these are implemented to check unhygienic operations of :

- i. Dairy related activities :
- ii. Slaughter houses and unauthorised slaughtering :
- iii. Malba (cnstruction debris) lifting :
- iv. Encroachment in Parks, Footpaths etc. :

7. How many slums are identified and whether these are provided with sanitation facilities :

8. **Are municipal magistrates appointed for Taking penal action : Yes/No**

[ If yes, how many cases registered & settled during last three years (give year-wise details)]

9. Hospital waste management

- i. How many Hospitals/Clinics under the control of the Corporation:
- ii. What methods are followed for disposal of bio-medical wastes ?:
- iii. Do you have any proposal for setting up of common treatment facility for disposal of bio-medical wastes :
- iv. How many private Nursing Homes, Clinics etc. are operating in the city/town and

what steps have been taken to check disposal of their wastes :

Signature of Municipal Commissioner Dated :

---

Form –III [See-rule 6(2)]

**Format for Issue of Authorisation**

File No.: \_\_\_\_\_

Date:\_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ref: Your application number \_\_\_\_\_ dt. \_\_\_\_\_

The \_\_\_\_\_ State Pollution Control Board/Pollution Control Committee aftere xamining the proposal hereby authorizes \_\_\_\_\_having their administrative office at \_\_\_\_\_to set up and operate waste processing/waste disposal facility at\_\_\_\_\_on the terms and conditions

\_\_\_\_\_ (including the standards to comply) attached to this authorization letter.

1. The validity of this authorization is till\_\_\_\_\_. After the validity, renewal of authorization is to be sought.
2. The\_\_\_\_\_State Pollution Control Board/Pollution Control Committees may, at any time, revoke any of the conditions applicable under the authorization and shall communicate the same in writing.
3. Any violation of the provision of the Municipal Solid Wastes (Managemaint and Handling) Rules, 2000 will attract the penal provision of the Environment (Protection) Act, 1986 (29 of1986).

(Member Secretary)

State Pollution Control Board/  
Pollution Control Committee

Date :

Place :

\_\_\_\_\_

## Form - IV

[see rule 8(1)]

**Format of Annual Review Report to be submitted by the State Pollution Control Board/Committees to the Central Pollution Control Board**

To,  
 The Chairman,  
 Central Pollution Control Board,  
 (Ministry of Environment and Forests )  
 Government of India,  
 'Parivesh Bhawan', East Arjun Nagar,  
 DELHI- 110 0032.

1.	Name of the State/Union territory	:	
2.	Name & address of the State Pollution Control	:	
3.	Board/Pollution Control Committee Number of municipal authorities responsible for management of municipal solid wastes in the State/Union territory under these rules	:	
4.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule I [rule 4(3)]	:	Please attach as Annexure-I
5.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule II [rules 6(1) and (3), 7(1)]	:	Please attach as Annexure-II
6.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule III [rules 6(1) and (3), 7(2)]	:	Please attach as Annexure-III
7.	A summary statement on progress made by municipal authorities in respect of implementation	:	Please attach as Annexure-IV
	of Schedule IV [rules 6(1) and (3), 7(2)]		
Date: _____		Chairman or the Member Secretary  State Pollution Control Board/  Pollution Control Committee	
Place : _____			

Form - V

[see rule 9]

Accident reporting

1.	Date and time of accident	:	
2.	Sequence of events leading to accident	:	
3.	The waste involved in accident	:	
4.	Assessment of the effects of the accidents on human health and the environment	:	
5.	Emergency measures taken	:	
6.	Steps taken to alleviate the effects of accidents	:	
7.	Steps taken to prevent the recurrence of such an accident	:	
Date : .....		Signature : .....	
Place : .....		Designation : .....	

V. Rajagopalan, Jt. Secy.  
[F.No.17-2/95-HSMD]

# THE NATIONAL GREEN TRIBUNAL ACT, 2010

---

## ARRANGEMENT OF SECTIONS

---

### CHAPTER I

#### PRELIMINARY

#### SECTIONS

1. Short title and commencement.
2. Definitions.

### CHAPTER II

#### ESTABLISHMENT OF THE TRIBUNAL

3. Establishment of Tribunal.
4. Composition of Tribunal
5. Qualifications for appointment of Chairperson, Judicial Member and Expert Member.
6. Appointment of Chairperson, Judicial Member and Expert Member.
7. Term of office and other conditions of service of Chairperson, Judicial Member and Expert Member.
8. Resignation.
9. Salaries, allowances and other terms and conditions of service.
10. Removal and suspension of Chairperson, Judicial Member and Expert Member.
11. To act as Chairperson of Tribunal or to discharge his functions in certain circumstances.
12. Staff of Tribunal.
13. Financial and administrative powers of Chairperson.

### CHAPTER III

#### JURISDICTION, POWERS AND PROCEEDINGS OF THE TRIBUNAL

14. Tribunal to settle disputes.
15. Relief, compensation and restitution.
16. Tribunal to have appellate jurisdiction.
17. Liability to pay relief or compensation in certain cases.
18. Application or appeal to Tribunal.
19. Procedure and powers of Tribunal.
20. Tribunal to apply certain principles.
21. Decision to be taken by majority.
22. Appeal to Supreme Court.
23. Cost.
24. Deposit of amount payable for damage to environment.
25. Execution of award or order or decision of Tribunal.

### CHAPTER IV

#### PENALTY

26. Penalty for failure to comply with orders of Tribunal.
27. Offences by companies.
28. Offences by Government Department.

CHAPTER V  
MISCELLANEOUS

SECTIONS

29. Bar of jurisdiction.
30. Cognizance of offences.
31. Members and staff of Tribunal to be public servants.
32. Protection of action taken in good faith.
33. Act to have overriding effect.
34. Power to amend Schedule I.
35. Power to make rules.
36. Amendment of certain enactments.
37. Power to remove difficulties.
38. Repeal and savings.

SCHEDULE I.

SCHEDULE II.

SCHEDULE III.



**THE NATIONAL GREEN TRIBUNAL ACT,  
2010 ACT No. 19 OF 2010**

[2nd June, 2010.]

An Act to provide for the establishment of a National Green Tribunal for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.

AND WHEREAS India is a party to the decisions taken at the United Nations Conference on the Human Environment held at Stockholm in June, 1972, in which India participated, calling upon the States to take appropriate steps for the protection and improvement of the human environment;

AND WHEREAS decisions were taken at the United Nations Conference on Environment and Development held at *Rio de Janeiro* in June, 1992, in which India participated, calling upon the States to provide effective access to judicial and administrative proceedings, including redress and remedy and to develop national laws regarding liability and compensation for the victims of pollution and other environmental damage;

AND WHEREAS in the judicial pronouncement in India, the right to healthy environment has been construed as a part of the right to life under article 21 of the Constitution;

AND WHEREAS it is considered expedient to implement the decisions taken at the aforesaid conferences and to have a National Green Tribunal in view of the involvement of multi-disciplinary issues relating to the environment.

BE it enacted by Parliament in the Sixty-first Year of the Republic of India as follows:—

CHAPTER

Preliminary

**1. Short title and commencement.**—(1) This Act may be called the National Green Tribunal Act, 2010.

(2) It shall come into force on such date<sup>1</sup> as the Central Government may, by notification in the Official Gazette, appoint.

**2. Definitions.**—(1) In this Act, unless the context otherwise requires,—

(a) "accident" means an accident involving a fortuitous or sudden or unintended occurrence while handling any hazardous substance or equipment, or plant, or vehicle resulting in continuous or intermittent or repeated exposure to death, of, or, injury to, any person or damage to any property or environment but does not include an accident by reason only of war or civil disturbance;

(b) "Chairperson" means the Chairperson of the National Green Tribunal;

(c) "environment" includes water, air and land and the inter-relationship, which exists among and between water, air and land and human beings, other living creatures, plants, micro-organism and property;

(d) "Expert Member" means a member of the Tribunal who, is appointed as such, and holds qualifications specified in sub-section (2) of section 5, and, is not a Judicial Member;

(e) "handling", in relation to any hazardous substance, means the manufacture, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of such hazardous substance;

---

<sup>1</sup> 18th October, 2010, *vide* notification No. S.O 2569(E), dated 18th October, 2010, *see* Gazette of India, Extraordinary, Part II, sec. 3(ii).

(f) "hazardous substance" means any substance or preparation which is defined as hazardous substance in the Environment (Protection) Act, 1986 (29 of 1986), and exceeding such quantity as specified or may be specified by the Central Government under the Public Liability Insurance Act, 1991 (6 of 1991);

(g) "injury" includes permanent, partial or total disablement or sickness resulting out of an accident;

(h) "Judicial Member" means a member of the Tribunal who is qualified to be appointed as such under sub-section (1) of section 5 and includes the Chairperson;

(i) "notification" means a notification published in the Official Gazette;

(j) "person" includes—

(i) an individual,

(ii) a Hindu undivided family,

(iii) a company,

(iv) a firm,

(v) an association of persons or a body of individuals, whether incorporated or not,

(vi) trustee of a trust,

(vii) a local authority, and

(viii) every artificial juridical person, not falling within any of the preceding sub-clauses;

(k) "prescribed" means prescribed by rules made under this Act;

(l) "Schedule" means Schedules I, II and III appended to this Act;

(m) "substantial question relating to environment" shall include an instance where,—

(i) there is a direct violation of a specific statutory environmental obligation by a person by which,—

(A) the community at large other than an individual or group of individuals is affected or likely to be affected by the environmental consequences; or

(B) the gravity of damage to the environment or property is substantial; or

(C) the damage to public health is broadly measurable;

(ii) the environmental consequences relate to a specific activity or a point source of pollution;

(n) "Tribunal" means the National Green Tribunal established under section 3;

(o) "workman" has the meaning assigned to it in the Workmen's Compensation Act, 1923 (8 of 1923).

(2) The words and expressions used in this Act but not defined herein and defined in the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), the Water (Prevention and Control of Pollution) Cess Act, 1977 (36 of 1977), the Forest (Conservation) Act, 1980 (69 of 1980), the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981), the Environment (Protection) Act, 1986 (29 of 1986), the Public Liability Insurance Act, 1991 (6 of 1991) and the Biological Diversity Act, 2002 (18 of 2003) and other Acts relating to environment shall have the meaning, respectively, assigned to them in those Acts.

## CHAPTER II

### ESTABLISHMENT OF THE TRIBUNAL

**3. Establishment of Tribunal.**—The Central Government shall, by notification, establish, with effect from such date as may be specified therein, a Tribunal to be known as the National Green Tribunal to exercise the jurisdiction, powers and authority conferred on such Tribunal by or under this Act.

**4. Composition of Tribunal.**—(1) The Tribunal shall consist of—

(a) a full time Chairperson;

(b) not less than ten but subject to maximum of twenty full time Judicial Members as the Central Government may, from time to time, notify;

(c) not less than ten but subject to maximum of twenty full time Expert Members, as the Central Government may, from time to time, notify.

(2) The Chairperson of the Tribunal may, if considered necessary, invite any one or more person having specialised knowledge and experience in a particular case before the Tribunal to assist the Tribunal in that case.

(3) The Central Government may, by notification, specify the ordinary place or places of sitting of the Tribunal, and the territorial jurisdiction falling under each such place of sitting.

(4) The Central Government may, in consultation with the Chairperson of the Tribunal, make rules regulating generally the practices and procedure of the Tribunal including—

(a) the rules as to the persons who shall be entitled to appear before the Tribunal;

(b) the rules as to the procedure for hearing applications and appeals and other matters [including the circuit procedure for hearing at a place other than the ordinary place of its sitting falling within the jurisdiction referred to in sub-section (3)], pertaining to the applications and appeals;

(c) the minimum number of Members who shall hear the applications and appeals in respect of any class or classes of applications and appeals:

Provided that the number of Expert Members shall, in hearing an application or appeal, be equal to the number of Judicial Members hearing such application or appeal;

(d) rules relating to transfer of cases by the Chairperson from one place of sitting (including the ordinary place of sitting) to other place of sitting.

**5. Qualifications for appointment of Chairperson, Judicial Member and Expert Member.—**

(1) A person shall not be qualified for appointment as the Chairperson or Judicial Member of the Tribunal unless he is, or has been, a Judge of the Supreme Court of India or Chief Justice of a High Court:

Provided that a person who is or has been a Judge of the High Court shall also be qualified to be appointed as a Judicial Member.

(2) A person shall not be qualified for appointment as an Expert Member, unless he,—

(a) has a degree in Master of Science (in physical sciences or life sciences) with a Doctorate degree or Master of Engineering or Master of Technology and has an experience of fifteen years in the relevant field including five years practical experience in the field of environment and forests (including pollution control, hazardous substance management, environment impact assessment, climate change management, biological diversity management and forest conservation) in a reputed National level institution; or

(b) has administrative experience of fifteen years including experience of five years in dealing with environmental matters in the Central or a State Government or in a reputed National or State level institution.

(3) The Chairperson, Judicial Member and Expert Member of the Tribunal shall not hold any other office during their tenure as such.

(4) The Chairperson and other Judicial and Expert Members shall not, for a period of two years from the date on which they cease to hold office, accept any employment in, or connected with the management or administration of, any person who has been a party to a proceeding before the Tribunal under this Act:

Provided that nothing contained in this section shall apply to any employment under the Central Government or a State Government or local authority or in any statutory authority or any corporation established by or under any Central, State or Provincial Act or a Government company as defined in section 617 of the Companies Act, 1956 (1 of 1956).

**6. Appointment of Chairperson, Judicial Member and Expert Member.**—(1) Subject to the provisions of section 5, the Chairperson, Judicial Members and Expert Members of the Tribunal shall be appointed by the Central Government.

(2) The Chairperson shall be appointed by the Central Government in consultation with the Chief Justice of India.

(3) The Judicial Members and Expert Members of the Tribunal shall be appointed on the recommendations of such Selection Committee and in such manner as may be prescribed.

**7. Term of office and other conditions of service of Chairperson, Judicial Member and Expert Member.**—The Chairperson, Judicial Member and Expert Member of the Tribunal shall hold office as such for a term of five years from the date on which they enter upon their office, but shall not be eligible for re-appointment:

Provided that in case a person, who is or has been a Judge of the Supreme Court, has been appointed as Chairperson or Judicial Member of the Tribunal, he shall not hold office after he has attained the age of seventy years:

Provided further that in case a person, who is or has been the Chief Justice of a High Court, has been appointed as Chairperson or Judicial Member of the Tribunal, he shall not hold office after he has attained the age of sixty-seven years:

Provided also that in case a person, who is or has been a Judge of a High Court, has been appointed as Judicial Member of the Tribunal, he shall not hold office after he has attained the age of sixty-seven years:

Provided also that no Expert Member shall hold office after he has attained the age of sixty-five years.

**8. Resignation.**—The Chairperson, Judicial Member and Expert Member of the Tribunal may, by notice in writing under their hand addressed to the Central Government, resign their office.

**9. Salaries, allowances and other terms and conditions of service.**—The salaries and allowances payable to, and the other terms and conditions of service (including pension, gratuity and other retirement benefits) of, the Chairperson, Judicial Member and Expert Member of the Tribunal shall be such as may be prescribed:

Provided that neither the salary and allowances nor the other terms and conditions of service of the Chairperson, Judicial Member and Expert Member shall be varied to their disadvantage after their appointment.

**10. Removal and suspension of Chairperson, Judicial Member and Expert Member.**—(1) The Central Government may, in consultation with the Chief Justice of India, remove from office of the Chairperson or Judicial Member of the Tribunal, who,—

(a) has been adjudged an insolvent; or

(b) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude; or

(c) has become physically or mentally incapable; or

(d) has acquired such financial or other interest as is likely to affect prejudicially his functions; or

(e) has so abused his position as to render his continuance in office prejudicial to the public interest.

(2) The Chairperson or Judicial Member shall not be removed from his office except by an order made by the Central Government after an inquiry made by a Judge of the Supreme Court in which such Chairperson or Judicial Member has been informed of the charges against him and given a reasonable opportunity of being heard in respect of those charges.

(3) The Central Government may suspend from office the Chairperson or Judicial Member in respect of whom a reference of conducting an inquiry has been made to the Judge of the Supreme Court under

sub-section (2), until the Central Government passes an order on receipt of the report of inquiry made by the Judge of the Supreme Court on such reference.

(4) The Central Government may, by rules, regulate the procedure for inquiry referred to in sub-section (2).

(5) The Expert Member may be removed from his office by an order of the Central Government on the grounds specified in sub-section (1) and in accordance with the procedure as may be notified by the Central Government:

Provided that the Expert Member shall not be removed unless he has been given an opportunity of being heard in the matter.

**11. To act as Chairperson of Tribunal or to discharge his functions in certain circumstances.**— In the event of the occurrence of any vacancy in the office of the Chairperson of the Tribunal, by reason of his death, resignation or otherwise, such Judicial Member of the Tribunal as the Central Government may, by notification, authorise in this behalf, shall act as the Chairperson until the date on which a new Chairperson is appointed in accordance with the provisions of this Act.

**12. Staff of Tribunal.**—(1) The Central Government shall determine the nature and categories of the officers and other employees required to assist the Tribunal in the discharge of its functions.

(2) The recruitment of the officers and other employees of the Tribunal shall be made by the Chairperson in such manner as may be prescribed.

(3) The officers and other employees of the Tribunal shall discharge their functions under the general superintendence of the Chairperson.

(4) The salaries and allowances and conditions of service of the officers and other employees of the Tribunal shall be such as may be prescribed.

**13. Financial and administrative powers of Chairperson.**—The Chairperson of the Tribunal shall exercise such financial and administrative powers as may be vested in him under the rules made by the Central Government:

Provided that the Chairperson may delegate such of his financial and administrative powers, as he may think fit, to any Judicial Member or Expert Member or officer of the Tribunal subject to the condition that the Member or such officer, while exercising such delegated power, continues to act under the direction, control and supervision of the Chairperson.

### CHAPTER III

#### JURISDICTION, POWERS AND PROCEEDINGS OF THE TRIBUNAL

**14. Tribunal to settle disputes.**—(1) The Tribunal shall have the jurisdiction over all civil cases where a substantial question relating to environment (including enforcement of any legal right relating to environment), is involved and such question arises out of the implementation of the enactments specified in Schedule I.

(2) The Tribunal shall hear the disputes arising from the questions referred to in sub-section (1) and settle such disputes and pass order thereon.

(3) No application for adjudication of dispute under this section shall be entertained by the Tribunal unless it is made within a period of six months from the date on which the cause of action for such dispute first arose:

Provided that the Tribunal may, if it is satisfied that the applicant was prevented by sufficient cause from filing the application within the said period, allow it to be filed within a further period not exceeding sixty days.

**15. Relief, compensation and restitution.**—(1) The Tribunal may, by an order, provide,—

(a) relief and compensation to the victims of pollution and other environmental damage arising under the enactments specified in the Schedule I (including accident occurring while handling any hazardous substance);

(b) for restitution of property damaged;

(c) for restitution of the environment for such area or areas, as the Tribunal may think fit.

(2) The relief and compensation and restitution of property and environment referred to in clauses (a), (b) and (c) of sub-section (1) shall be in addition to the relief paid or payable under the Public Liability Insurance Act, 1991 (6 of 1991).

(3) No application for grant of any compensation or relief or restitution of property or environment under this section shall be entertained by the Tribunal unless it is made within a period of five years from the date on which the cause for such compensation or relief first arose:

Provided that the Tribunal may, if it is satisfied that the applicant was prevented by sufficient cause from filing the application within the said period, allow it to be filed within a further period not exceeding sixty days.

(4) The Tribunal may, having regard to the damage to public health, property and environment, divide the compensation or relief payable under separate heads specified in Schedule II so as to provide compensation or relief to the claimants and for restitution of the damaged property or environment, as it may think fit.

(5) Every claimant of the compensation or relief under this Act shall intimate to the Tribunal about the application filed to, or, as the case may be, compensation or relief received from, any other court or authority.

**16. Tribunal to have appellate jurisdiction.**—Any person aggrieved by,—

(a) an order or decision, made, on or after the commencement of the National Green Tribunal Act, 2010, by the appellate authority under section 28 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(b) an order passed, on or after the commencement of the National Green Tribunal Act, 2010, by the State Government under section 29 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(c) directions issued, on or after the commencement of the National Green Tribunal Act, 2010, by a Board, under section 33A of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(d) an order or decision made, on or after the commencement of the National Green Tribunal Act, 2010, by the appellate authority under section 13 of the Water (Prevention and Control of Pollution) Cess Act, 1977 (36 of 1977);

(e) an order or decision made, on or after the commencement of the National Green Tribunal Act, 2010, by the State Government or other authority under section 2 of the Forest (Conservation) Act, 1980 (69 of 1980);

(f) an order or decision, made, on or after the commencement of the National Green Tribunal Act, 2010, by the Appellate Authority under section 31 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);

(g) any direction issued, on or after the commencement of the National Green Tribunal Act, 2010, under section 5 of the Environment (Protection) Act, 1986 (29 of 1986);

(h) an order made, on or after the commencement of the National Green Tribunal Act, 2010, granting environmental clearance in the area in which any industries, operations or processes or class of industries, operations and processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act, 1986 (29 of 1986);

(i) an order made, on or after the commencement of the National Green Tribunal Act, 2010, refusing to grant environmental clearance for carrying out any activity or operation or process under the Environment (Protection) Act, 1986 (29 of 1986);

(i) any determination of benefit sharing or order made, on or after the commencement of the National Green Tribunal Act, 2010, by the National Biodiversity Authority or a State Biodiversity Board under the provisions of the Biological Diversity Act, 2002 (18 of 2003),

(j) may, within a period of thirty days from the date on which the order or decision or direction or determination is communicated to him, prefer an appeal to the Tribunal:

Provided that the Tribunal may, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal within the said period, allow it to be filed under this section within a further period not exceeding sixty days.

**17. Liability to pay relief or compensation in certain cases.**—(1) Where death of, or injury to, any person (other than a workman) or damage to any property or environment has resulted from an accident or the adverse impact of an activity or operation or process, under any enactment specified in Schedule I, the person responsible shall be liable to pay such relief or compensation for such death, injury or damage, under all or any of the heads specified in Schedule II, as may be determined by the Tribunal.

(2) If the death, injury or damage caused by an accident or the adverse impact of an activity or operation or process under any enactment specified in Schedule I cannot be attributed to any single activity or operation or process but is the combined or resultant effect of several such activities, operations and processes, the Tribunal may, apportion the liability for relief or compensation amongst those responsible for such activities, operations and processes on an equitable basis.

(3) The Tribunal shall, in case of an accident, apply the principle of no fault.

**18. Application or appeal to Tribunal.**—(1) Each application under sections 14 and 15 or an appeal under section 16 shall, be made to the Tribunal in such form, contain such particulars, and, be accompanied by such documents and such fees as may be prescribed.

(2) Without prejudice to the provisions contained in section 16, an application for grant of relief or compensation or settlement of dispute may be made to the Tribunal by—

- (a) the person, who has sustained the injury; or
- (b) the owner of the property to which the damage has been caused; or
- (c) where death has resulted from the environmental damage, by all or any of the legal representatives of the deceased; or
- (d) any agent duly authorised by such person or owner of such property or all or any of the legal representatives of the deceased, as the case may be; or
- (e) any person aggrieved, including any representative body or organisation; or
- (f) the Central Government or a State Government or a Union territory Administration or the Central Pollution Control Board or a State Pollution Control Board or a Pollution Control Committee or a local authority, or any environmental authority constituted or established under the Environment (Protection) Act, 1986 (29 of 1986) or any other law for the time being in force:

Provided that where all the legal representatives of the deceased have not joined in any such application for compensation or relief or settlement of dispute, the application shall be made on behalf of, or, for the benefit of all the legal representatives of the deceased and the legal representatives who have not so joined shall be impleaded as respondents to the application:

Provided further that the person, the owner, the legal representative, agent, representative body or organisation shall not be entitled to make an application for grant of relief or compensation or settlement of dispute if such person, the owner, the legal representative, agent, representative body or organisation have preferred an appeal under section 16.

(3) The application, or as the case may be, the appeal filed before the Tribunal under this Act shall be dealt with by it as expeditiously as possible and endeavour shall be made by it to dispose of the application, or, as the case may be, the appeal, finally within six months from the date of filing of the application, or as the case may be, the appeal, after providing the parties concerned an opportunity to be heard.

**19. Procedure and powers of Tribunal.**—(1) The Tribunal shall not be bound by the procedure laid down by the Code of Civil Procedure, 1908 (5 of 1908) but shall be guided by the principles of natural justice.

(2) Subject to the provisions of this Act, the Tribunal shall have power to regulate its own procedure.

(3) The Tribunal shall also not be bound by the rules of evidence contained in the Indian Evidence Act, 1872 (1 of 1872).

(4) The Tribunal shall have, for the purposes of discharging its functions under this Act, the same powers as are vested in a civil court under the Code of Civil Procedure, 1908 (5 of 1908), while trying a suit, in respect of the following matters, namely:—

- (a) summoning and enforcing the attendance of any person and examining him on oath;
- (b) requiring the discovery and production of documents;
- (c) receiving evidence on affidavits;
- (d) subject to the provisions of sections 123 and 124 of the Indian Evidence Act, 1872 (1 of 1872), requisitioning any public record or document or copy of such record or document from any office;
- (e) issuing commissions for the examination of witnesses or documents;
- (f) reviewing its decision;
- (g) dismissing an application for default or deciding it ex parte;
- (h) setting aside any order of dismissal of any application for default or any order passed by it ex parte;
- (i) pass an interim order (including granting an injunction or stay) after providing the parties concerned an opportunity to be heard, on any application made or appeal filed under this Act;
- (j) pass an order requiring any person to cease and desist from committing or causing any violation of any enactment specified in Schedule I;
- (k) any other matter which may be prescribed.

(5) All proceedings before the Tribunal shall be deemed to be the judicial proceedings within the meaning of sections 193, 219 and 228 for the purposes of section 196 of the Indian Penal Code

(45 of 1860) and the Tribunal shall be deemed to be a civil court for the purposes of section 195 and Chapter XXVI of the Code of Criminal Procedure, 1973 (2 of 1974).

**20. Tribunal to apply certain principles.**—The Tribunal shall, while passing any order or decision or award, apply the principles of sustainable development, the precautionary principle and the polluter pays principle

**21. Decision to be taken by majority.**—The decision of the Tribunal by majority of Members shall be binding: Provided that if there is a difference of opinion among the Members hearing an application or appeal, and the opinion is equally divided, the Chairperson shall hear (if he has not heard earlier such application or appeal) such application or appeal and decide: Provided further that where the Chairperson himself has heard such application or appeal along with other Members of the Tribunal, and if there is a difference of opinion among the Members in such cases and the opinion is equally divided, he shall refer the matter to other Members of the Tribunal who shall hear such application or appeal and decide.

**22. Appeal to Supreme Court.**—Any person aggrieved by any award, decision or order of the Tribunal, may, file an appeal to the Supreme Court, within ninety days from the date of communication of the award, decision or order of the Tribunal, to him, on any one or more of the grounds specified in section 100 of the Code of Civil Procedure, 1908 (5 of 1908):

Provided that the Supreme Court may entertain any appeal after the expiry of ninety days, if it is satisfied that the appellant was prevented by sufficient cause from preferring the appeal.

**23. Cost.**—(1) While disposing of an application or an appeal under this Act, the Tribunal shall have power to make such order as to costs, as it may consider necessary.

(2) Where the Tribunal holds that a claim is not maintainable, or is false or vexatious, and such claim is disallowed, in whole or in part, the Tribunal may, if it so thinks fit, after recording its reasons for holding such claim to be false or vexatious, make an order to award costs, including lost benefits due to any interim injunction.

**24. Deposit of amount payable for damage to environment.**—(1) Where any amount by way of compensation or relief is ordered to be paid under any award or order made by the Tribunal on the ground of any damage to environment, that amount shall be remitted to the authority specified under sub-section (3) of section 7A of the Public Liability Insurance Act, 1991 (6 of 1991) for being credited to the Environmental Relief Fund established under that section.

(2) The amount of compensation or relief credited to the Environmental Relief Fund under sub-section (1), may, notwithstanding anything contained in the Public Liability Insurance Act, 1991 (6 of 1991) be utilised by such persons or authority, in such manner and for such purposes relating to environment, as may be prescribed.

**25. Execution of award or order or decision of Tribunal.**—(1) An award or order or decision of the Tribunal under this Act shall be executable by the Tribunal as a decree of a civil court, and for this purpose, the Tribunal shall have all the powers of a civil court.

(2) Notwithstanding anything contained in sub-section (1), the Tribunal may transmit any order or award made by it to a civil court having local jurisdiction and such civil court shall execute the order or award as if it were a decree made by that court.

(3) Where the person responsible, for death of, or injury to any person or damage to any property and environment, against whom the award or order is made by the Tribunal, fails to make the payment or deposit the amount as directed by the Tribunal within the period so specified in the award or order, such amount, without prejudice to the filing of complaint for prosecution for an offence under this Act or any other law for the time being in force, shall be recoverable from the aforesaid person as arrears of land revenue or of public demand.

#### CHAPTER IV PENALTY

**26. Penalty for failure to comply with orders of Tribunal.**—(1) Whoever, fails to comply with any order or award or decision of the Tribunal under this Act, he shall be punishable with



imprisonment for a term which may extend to three years, or with fine which may extend to ten crore rupees, or with both and in case the failure or contravention continues, with additional fine which may extend to twentyfive thousand rupees for every day during which such failure or contravention continues after conviction for the first such failure or contravention:

Provided that in case a company fails to comply with any order or award or a decision of the Tribunal under this Act, such company shall be punishable with fine which may extend to twenty-five crore rupees, and in case the failure or contravention continues, with additional fine which may extend to one lakh rupees for every day during which such failure or contravention continues after conviction for the first such failure or contravention.

(2) Notwithstanding anything contained in the Code of Criminal Procedure, 1973 (2 of 1974) every offence under this Act shall be deemed to be non-cognizable within the meaning of the said Code.

**27. Offences by companies.**—(1) Where any offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by the company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purposes of this section,—

- (a) "company" means any body corporate and includes a firm or other association of individuals; and
- (b) "director" in relation to a firm means a partner in the firm.

**28. Offences by Government Department.**—(1) Where any Department of the Government fails to comply with any order or award or decision of the Tribunal under this Act, the Head of the Department shall be deemed to be guilty of such failure and shall be liable to be proceeded against for having committed an offence under this Act and punished accordingly:

Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

## CHAPTER V MISCELLANEOUS

**29. Bar of jurisdiction.**—(1) With effect from the date of establishment of the Tribunal under this Act, no civil court shall have jurisdiction to entertain any appeal in respect of any matter, which the Tribunal is empowered to determine under its appellate jurisdiction.

(2) No civil court shall have jurisdiction to settle dispute or entertain any question relating to any claim for granting any relief or compensation or restitution of property damaged or environment damaged which may be adjudicated upon by the Tribunal, and no injunction in respect of any action taken or to be taken by or before the Tribunal in respect of the settlement of such dispute or any such claim for granting any relief or compensation or restitution of property damaged or environment damaged shall be granted by the civil court.

**30. Cognizance of offences.**—(1) No court shall take cognizance of any offence under this Act except on a complaint made by—

(a) the Central Government or any authority or officer authorised in this behalf by that Government; or

(b) any person who has given notice of not less than sixty days in such manner as may be prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer authorised as aforesaid.

(2) No court inferior to that of a Metropolitan Magistrate or, a Judicial Magistrate of the first class shall try any offence punishable under this Act.

**31. Members and staff of Tribunal to be public servants.**—The Chairperson, the Judicial and Expert Members, officers and other employees of the Tribunal shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code (45 of 1860).

**32 Protection of action taken in good faith.**—(1) No suit or other legal proceeding shall lie against the employees of the Central Government or a State Government or any statutory authority, for anything which is in good faith done or intended to be done in pursuance of this Act or any rule or order made thereunder.

(2) No suit, prosecution or other legal proceeding shall lie against the Chairperson or, Judicial Member or Expert Member of the Tribunal or any other person authorised by the Chairperson or Judicial Member or the Expert Member for anything which is in good faith done or intended to be done in pursuance of this Act or any rule or order made thereunder.

**33 Act to have overriding effect.**—The provisions of this Act, shall have effect notwithstanding anything inconsistent contained in any other law for the time being in force or in any instrument having effect by virtue of any law other than this Act.

**34 Power to amend Schedule I.**—(1) The Central Government may, by notification, amend the Schedule I by including therein any other Act, enacted by Parliament having regard to the objective of environmental protection and conservation of natural resources, or omitting therefrom any Act already specified therein and on the date of publication of such notification, such Act shall be deemed to be included in or, as the case may be, omitted from the Schedule I.

(2) A copy of every notification proposed to be issued under sub-section (1), shall be laid in draft before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in disapproving the issue of the notification or both Houses agree in making any modification in the notification, the notification shall not be issued or, as the case may be, shall be issued only in such modified form as may be agreed upon by both the Houses.

**35 Power to make rules.**—(1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the provisions of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) rules as to the persons who shall be entitled to appear before the Tribunal under clause (a) of sub-section (4) of section 4;

(b) the procedure for hearing applications and appeals and other matters pertaining to the applications and appeals under clause (b) of sub-section (4) of section 4;

(c) the minimum number of members who shall hear the applications and appeals in respect of any class or classes of applications and appeals under clause (c) of sub-section (4) of section 4;

(d) the transfer of cases by the Chairperson from one place of sitting (including the ordinary place of sitting) to other place of sitting;

(e) the selection committee and the manner of appointment of the Judicial Member and Expert Member of the Tribunal under sub-section (3) of section 6;

(f) the salaries and allowances payable to, and other terms and conditions of service (including pension, gratuity and other retirement benefits) of, the Chairperson, Judicial Member and Expert

Member of the Tribunal under section 9;

(g) the procedure for inquiry of the charges against the Chairperson or Judicial Member of the Tribunal under sub-section (4) of section 10;

(h) the recruitment of officers and other employees of the Tribunal under sub-section (2) of section 12; and the salaries and allowances and other conditions of service of the officers and other employees of the Tribunal under sub-section (4) of that section;

(i) the financial and administrative powers to be exercised by the Chairperson of the Tribunal under section 13:

(j) the form of application or appeal, the particulars which it shall contain and the documents to be accompanied by and the fees payable under sub-section (1) of section 18;

(k) any such matter in respect of which the Tribunal shall have powers of a civil court under clause (k) of sub-section (4) of section 19;

(l) the manner and the purposes for which the amount of compensation or relief credited to the Environment Relief Fund shall be utilised under sub-section (2) of section 24;

(m) the manner of giving notice to make a complaint under clause (b) of sub-section (1) of section 30;

(n) any other matter which is required to be, or may be, specified by rules or in respect of which provision is to be made by rules.

(3) Every rule made under this Act by the Central Government shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

**36. Amendment of certain enactments.**—The enactments specified in the Schedule III to this Act shall be amended in the manner specified therein and such amendments shall take effect on the date of establishment of the Tribunal.

**37 Power to remove difficulties.**—(1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government, may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act as may appear to it to be necessary for removing the difficulty:

Provided that no such order shall be made after the expiry of a period of two years from the commencement of this Act.

(2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

**38. Repeal and savings.**—(1) The National Environment Tribunal Act, 1995 (27 of 1995) and the National Environment Appellate Authority Act, 1997 (22 of 1997) are hereby repealed (hereinafter referred to as the repealed Act).

(2) Notwithstanding such repeal, anything done or any action taken under the said Acts shall be deemed to have been done or taken under the corresponding provisions of this Act.

(3) The National Environment Appellate Authority established under sub-section (1) of section 3 of the National Environment Appellate Authority Act, 1997 (22 of 1997), shall, on the establishment of the National Green Tribunal under the National Green Tribunal Act, 2010, stand dissolved.

(4) On the dissolution of the National Environment Appellate Authority established under sub-section (1) of section 3 of the National Environment Appellate Authority Act, 1997 (22 of 1997), the persons appointed as the Chairperson, Vice-chairperson and every other person appointed as Member of the said National Environment Appellate Authority and holding office as such immediately before the establishment of the National Green Tribunal under the National Green Tribunal Act, 2010, shall vacate their respective offices and no such Chairperson, Vice-chairperson and every other person appointed as Member shall be entitled to claim any compensation for the premature termination of the term of his office or of any contract of service.

(5) All cases pending before the National Environment Appellate Authority established under sub-section (1) of section 3 of the National Environment Appellate Authority Act, 1997 (22 of 1997) on or before the establishment of the National Green Tribunal under the National Green Tribunal Act, 2010,

shall, on such establishment, stand transferred to the said National Green Tribunal and the National Green Tribunal shall dispose of such cases as if they were cases filed under that Act.

(6) The officers or other employees who have been, immediately before the dissolution of the National Environment Appellate Authority appointed on deputation basis to the National Environment Appellate Authority, shall, on such dissolution, stand reverted to their parent cadre, Ministry or Department, as the case may be.

(7) On the dissolution of the National Environment Appellate Authority, the officers and other employees appointed on contract basis under the National Environment Appellate Authority and holding office as such immediately before such dissolution, shall vacate their respective offices and such officers and other employees shall be entitled to claim compensation for three months' pay and allowances or pay and allowances for the remaining period of service, whichever is less, for the premature termination of term of their office under their contract of service.

(8) The mention of the particular matters referred to in sub-sections (2) to (7) shall not be held to prejudice or affect the general application of section 6 of the General Clauses Act, 1897 (10 of 1897) with regard to the effect of repeal.

## SCHEDULE I

[See sections 14(I), 15(I), 17(I)(a), 17(2), 19(4) (j) and 34(I)]

1. The Water (Prevention and Control of Pollution) Act, 1974;
2. The Water (Prevention and Control of Pollution) Cess Act, 1977;
3. The Forest (Conservation) Act, 1980;
4. The Air (Prevention and Control of Pollution) Act, 1981;
5. The Environment (Protection) Act, 1986;
6. The Public Liability Insurance Act, 1991;
7. The Biological Diversity Act, 2002.

## SCHEDULE II

[See sections 15(4) and 17(1)]

## HEADS UNDER WHICH COMPENSATION OR RELIEF FOR DAMAGE MAY BE CLAIMED

- (a) Death;
- (b) Permanent, temporary, total or partial disability or other injury or sickness;
- (c) Loss of wages due to total or partial disability or permanent or temporary disability;
- (d) Medical expenses incurred for treatment of injuries or sickness;
- (e) Damages to private property;
- (f) Expenses incurred by the Government or any local authority in providing relief, aid and rehabilitation to the affected persons;
- (g) Expenses incurred by the Government for any administrative or legal action or to cope with any harm or damage, including compensation for environmental degradation and restoration of the quality of environment;
- (h) Loss to the Government or local authority arising out of, or connected with, the activity causing any damage;
- (i) Claims on account of any harm, damage or destruction to the fauna including milch and draught animals and aquatic fauna;
- (j) Claims on account of any harm, damage or destruction to flora including aquatic flora, crops, vegetables, trees and orchards;
- (k) Claims including cost of restoration on account of any harm or damage to environment including pollution of soil, air, water, land and eco-systems;
- (l) Loss and destruction of any property other than private property;
- (m) Loss of business or employment or both;
- (n) Any other claim arising out of, or connected with, any activity of handling of hazardous substance.

SCHEDULE III  
(See section 36)

AMENDMENT TO CERTAIN ENACTMENTS

PART I

AMENDMENT TO THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974

(6 OF 1974)

Insertion of new section 33B.—After section 33A, the following section shall be inserted, namely:—

Appeal to National Green Tribunal.—"33B. Any person aggrieved by,—

(a) an order or decision of the appellate authority under section 28, made on or after the commencement of the National Green Tribunal Act, 2010; or

(b) an order passed by the State Government under section 29, on or after the commencement of the National Green Tribunal Act, 2010; or

(c) directions issued under section 33A by a Board, on or after the commencement of the National Green Tribunal Act, 2010,

may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."

PART II

AMENDMENTS TO THE WATER (PREVENTION AND CONTROL OF POLLUTION) CESS ACT, 1977

(36 OF 1977)

1. Amendment of section 13.—In section 13, in sub-section (4), for the words "shall be final", the words, figures and letters "shall, if no appeal has been filed under section 13A, be final" shall be substituted.

2. Insertion of new section 13A.—After section 13, the following section shall be inserted, namely:—

"13A. Appeal to National Green Tribunal.— Any person aggrieved, by an order or decision of the appellate authority made under section 13, on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."

PART III

AMENDMENT TO THE FOREST (CONSERVATION) ACT,

1980 (69 OF 1980)

Insertion of new section 2A.—After section 2, the following section shall be inserted, namely:—

"2A. Appeal to National Green Tribunal.—Any person aggrieved, by an order or decision of the State Government or other authority made under section 2, on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."

PART IV

AMENDMENT TO THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT,

1981 (14 OF 1981)

Insertion of new section 31B.—After section 31A, the following section shall be inserted, namely:—

"31B. Appeal to National Green Tribunal.—Any person aggrieved by an order or decision of the Appellate Authority under section 31, made on or after the commencement of the National Green

Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."

PART V

AMENDMENT TO THE ENVIRONMENT (PROTECTION) ACT,

1986 (29 OF 1986)

Insertion of new section 5A.—After section 5, the following section shall be inserted, namely:—

"5A. Appeal to National Green Tribunal.—Any person aggrieved by any directions issued under section 5, on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."

PART VI  
AMENDMENTS TO THE BIOLOGICAL DIVERSITY ACT,  
2002 (18 OF 2003)

**1.** Amendment of section 52.—In section 52, after the proviso, the following provisos shall be inserted, namely:—

"Provided further that nothing contained in this section shall apply on and from the commencement of the National Green Tribunal Act, 2010:

Provided also that any appeal pending before the High Court, before the commencement of the National Green Tribunal Act, 2010, shall continue to be heard and disposed of by the High Court as if the National Green Tribunal had not been established under section 3 of the National Green Tribunal Act, 2010."

**2.** Insertion of new section 52A.—After section 52, the following section shall be inserted, namely:—

"52A. Appeal to National Green Tribunal.—Any person aggrieved by any determination of benefit sharing or order of the National Biodiversity Authority or a State Biodiversity Board under this Act, on or after the commencement of the National Green Tribunal Act, 2010, may file an appeal to the National Green Tribunal established under section 3 of the National Green Tribunal Act, 2010, in accordance with the provisions of that Act."



भारतीय मानक  
Indian Standard

IS 8895 : 2015

---



---

बूचड़खाने उप-उत्पाद के प्रहस्तन,  
भंडारण एवं परिवहन हेतु — दिशा  
निर्देश

( पहला पुनरीक्षण )

**Handling, Storage and  
Transport of Slaughterhouse  
By-Products — Guidelines**

( *First Revision* )

ICS 67.120.99

© BIS 2015



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS  
मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली-110002  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI-110002  
[www.bis.org.in](http://www.bis.org.in) [www.standardsbis.in](http://www.standardsbis.in)

September 2015

Price Group 2

Slaughterhouse and Meat Industry Sectional Committee, FAD 18

## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Slaughterhouse and Meat Industry Sectional Committee had been approved by the Food and Agriculture Division Council.

This standard was first published in 1978 as a great potential was envisaged for utilization of slaughterhouse by-products for valuable feed-stuff, fertilizer and pet foods, if the by-products are handled, stored and transported under appropriate conditions. This standard was intended to provide guidelines for handling, storage and transport of slaughterhouse by-products thereby saving sizeable quantities of this raw material for the slaughterhouse by-product industries.

In present revision, following major modifications have been incorporated:

- a) Guidelines for transport vehicles used for condemned/rendering material has been incorporated.
- b) Risk based classification of slaughterhouse by-products into three categories incorporated.
- c) Guidelines for disposal of slaughterhouse by-products incorporated.
- d) This standard has been aligned with *Food Safety and Standard Regulations, 2011*.

IS 8895 : 2015

*Indian Standard*

# HANDLING, STORAGE AND TRANSPORT OF SLAUGHTERHOUSE BY-PRODUCTS — GUIDELINES ( *First Revision* )

**1 SCOPE**

This standard provides guidelines for proper handling, storage and transport of by-products of slaughterhouses and meat processing factories. This standard does not include the guidelines for the processing of pharmaceutical products like insulin and pancreatin.

**2 REFERENCE**

The following standard contains provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below:

<i>IS No.</i>	<i>Title</i>
1982 : 2015	Code of practice for ante-mortem and post-mortem inspection of meat animals ( <i>second revision</i> )

**3 TERMINOLOGY**

For the purpose of this standard, the definitions given in IS 1982 and the following shall apply.

**15. Slaughterhouse/Meat Processing Plant/ Abattoir** — A licensed place/building/ premises where food animals are slaughtered humanely in hygienic manner with proper ante-mortem and post-mortem inspection by veterinarian for human consumption.

**16. Slaughterhouse By-Products** — The secondary products obtained during the manufacture of a principal commodity or anything other than meat derived from a food animal.

**17. Rendering** — A process involving application of heat for separation of fat and protein residue.

**18. Incineration** — A process for burning waste material at high temperature until it is reduced to ash.

**4 ANTE-MORTEM AND POST MORTEM INSPECTION**

The by-products shall be obtained from animals subjected to proper ante-mortem and post-mortem inspection as per IS 1982.

**5 CLASSIFICATION OF SLAUGHTERHOUSE BY-PRODUCTS**

Slaughterhouse by-products may fall into one of the following three categories:

8. *Category 1* — These materials carry highest risk, and consist principally of material that is considered a transmissible spongiform encephalopathies (TSEs) risk, such as specified risk material [those parts of an animal considered most likely to harbour a disease such as avian influenza, Bovine spongiform encephalopathy (BSE), for example bovine spinal cord]. Pet animals, zoo and circus animals and experimental animals are also classified as Category 1 material due to the level of veterinary drugs and residues they are likely to contain and due to the fact that adequate diagnosis of the exact cause of death of exotic animals may be difficult to achieve.
9. *Category 2* — These materials are also high risk material and include fallen stock, manure and digestive content. Category 2 is also the default status of any slaughterhouse by-product not defined in either Category 1 or Category 3.
10. *Category 3* — These are low risk materials and include parts of animals that have been passed fit for human consumption in a slaughterhouse but which are not intended for consumption, either because they are not parts of animals that we normally eat (hides, hair, feathers, bones, etc) or for commercial reasons.

**6 HANDLING, STORAGE AND TRANSPORT OF FOOD SLAUGHTERHOUSE BY-PRODUCTS****6.1 Transport Vehicle for Condemned Material/ Rendering Material**

**17.** The material is usually transported in customized, water-tight vehicles to prevent spillage of material on the highway and may

be subjected to temporary storage at the rendering plant.

**18. Slaughterhouse by-products shall be transported**  
**IS 8895 : 2015**

in sealed new packaging or covered leak-proof containers or vehicles. Containers shall be dedicated to the use of specific categories of slaughterhouse by-products and where they shall be cleaned and disinfected after each use in order to prevent cross contamination.

**19.** A vehicle used for the transport of condemned material may not be used for any other purpose. However, after cleaning and disinfection the vehicle may be used for the transport of inedible material.

**20.** A vehicle may only be used for the transport of condemned material if,

- (a) the load space is lockable, theft proof and sealable;
- (b) the internal surface is leak proof and constructed of durable material; and
- (c) floor is provided at its lowest point with a drain pipe capable of being securely closed by a screw valve.

**21.** The load space of the vehicle used for transporting material to a sterilizing plant shall be cleaned and disinfected to the satisfaction of a inspector at the end of each delivery, at a place specially constructed for the purpose.

**22.** During transportation, a commercial document or in certain circumstances, a veterinary certificate shall accompany the slaughterhouse by-products.

**23.** The commercial document shall record the date on which the material is taken from the premises; a description of the material; the quantity of the material, in weight or volume; the place of origin of the material; the name and address of the transporter; the name and address of the receiver and its approval or registration number, if appropriate; and the approval or registration number of the plant of origin, if appropriate.

**24.** Records and related commercial documents or veterinary certificates shall be retained for at least two years.

**6.2 General Requirements for Collection and Identification of Slaughterhouse By-Products**

**10.** Slaughterhouse by-products shall be collected, identified and disposed off without undue delay, in order to prevent risks arising to public and animal health. 'Undue delay' will depend on a case-by-

case assessment depending on the type of slaughterhouse by-products involved.

**11.** Slaughterhouse by-products shall be collected and identified by category. Mixtures of different categories of slaughterhouse by-products shall be treated as the higher or highest risk of the mixed materials, for example if Category 3 material is mixed with Category 2 material, all the material shall be disposed of as Category 2 material.

**6.2.3** Category 3 material shall be labelled 'not for human consumption'. Category 2 material shall be labelled 'not for human/animal consumption'. Category 1 material shall be labelled as 'for disposal only'. Specific types of animal by-products such as collagen, blood products may require further labelling.

**6.3 Requirements for Preservation, handling and Transport of Glands**

**6.3.1 Preservation**

**(f)** The best method of preservation applicable to all glands is freezing, and the collection of glands should therefore only be attempted where it is possible to freeze them within 1h of collection, and to deliver them in a frozen condition to the pharmaceutical producer. A freezer does not have to be a large installation. It is sufficient, if it is the size of a domestic refrigerator, provided the necessary temperature may be achieved rapidly.

**(g)** Some glands may be preserved by chemical means, as, for instance, by immersing 1 kg of the gland in 1 litre of acetone. After 24 h, the glands shall be removed and placed in fresh acetone. Chemical methods of conserving glands should only be used after previous consultation with the manufacturers, when they will indicate whether and how they wish the glands to be chemically treated; 1 percent phenol or 2 percent formalin are sometimes recommended.

**(h)** The third method of preservation is by vacuum-drying. This method allows the gland to be dried at a temperature low enough not to destroy its value for pharmaceuticals. Even glands which have been vacuum-dried shall reach the manufacturer quickly, as the fat contained by the dried material may become rancid and influence the potency of the product. Only certain glands may be dried, and here again the manufacturers usually provide their own type of drying equipment.

**6.3.2 Collection**

**52.** Only glands from healthy animals should be collected. Glands should never be in direct contact with water because the active principals may be partially or totally leached out. The collection of small glands is best done into a glass or metal container surrounded by crushed ice and fitted into a larger container.

Trimming of ligaments, blood vessels, meat, fat or any other foreign tissue shall be done with a pair of scissors and forceps as soon as the glands are removed from the body. Sometimes it is better to trim after glands have been chilled

**6.3.2.3** Quick freezing is essential; it is not enough to put the glands in a cooler; they shall be deep-frozen at a temperature not lower than 0°C. For freezing the glands should be spread on trays, so that as far as possible one does not touch another.

### **6.3.3 Handling**

#### **6.3.3.1 Collection**

The greatest care should be taken that glands do not touch water nor get contaminated with faeces, gall or other impurities. The glands shall reach the manufacturer in a condition in which it left the freshly slaughtered animal. It should be of a bright pink or red colour.

#### **6.3.3.2 Trimming**

All foreign tissues, such as fat, veins, ligaments, etc, should be cut off immediately.

#### **6.3.3.3 Chilling**

If the gland is left at room temperature, the hormones will be destroyed within 2h to 3h by enzymes which are present in it. Only chilling and subsequent freezing can prevent this action. The glands should be collected into a vessel which is immersed in a larger container holding ice. In no circumstances should the gland itself be put direct on ice, since water leaches out the active principals from the gland.

#### **6.3.3.4 Freezing**

Glands are spread out individually on chilled metal trays, so that they do not touch one another. This is to prevent the formation of slabs or blocks of glands. Individual separate glands freeze faster throughout and therefore destructive activity is stopped more rapidly.

#### **6.3.3.5 Packing**

The glands should not be subjected to rough handling before they reach their destination and therefore heavy wooden boxes, barrels or strong fibre boxes should be used. The containers should first be lined with several layers of wax paper, as protection against thawing. Each container should be tightly filled to the top to give the minimum air space. A double box may be used, for instance, a corrugated fiber box inside a wooden one.

#### **6.3.3.6 Marking**

Every package shall be marked with the producer's name, the type of product, and the gross and net weights clearly stenciled.

#### **6.3.4 General**

The packages shall be transported under refrigerated conditions from the moment they leave the freezer until

**IS 8895 : 2015**

they reach the manufacturer, apart from the short periods necessary for loading and unloading.

### **6.4 Requirements for Preservation, Handling and Transport of Edible Organs Such as Liver, Heart, Spleen, Kidney, Lungs, Testicles, Stomach Intestine, Brain, Bones and Blood**

(r) The edible offals collected from healthy animals passed after post mortem inspection, should be hygienically processed and preserved without any contamination, if necessary with any pre-treatment and stored at chiller (0-4°C) or freezer (-18°C) depending upon their usage.

(s) The organs should not be subjected to rough handling before they reach their destination. The greatest care should be taken that they do not have contact with water nor get contaminated with faeces, gall or other impurities. All foreign tissues, such as fat, etc, should be removed and spread out individually on chilled metal trays, so that they do not touch one another. The material may be transported in tightly packed boxes/containers to protect from thawing with minimum air space. Every package shall have the producer's name, the type of product, and the gross and net weights clearly stenciled.

(t) The best method of preservation applicable to all edible organs is freezing; it should be done within 1h of collection, and to deliver them in a frozen condition.

### **6.5 Disposal and Use of Slaughterhouse By-Products**

#### **6.5.1 Disposal of Category 1 Material**

As the highest risk material, this material shall be destroyed by incineration, or by rendering followed by incineration. These are the only options for transmissible spongiform encephalopathies (TSEs) suspects. Other Category 1 material is also permitted to be pressure-rendered and disposed of in an authorized landfill site.

#### **6.5.2 Disposal and Use of Category 2 Material**

(n) The basic options of incineration and rendering followed by incineration are permitted, as with Category 1 material. All

Category 2 material may also be rendered and disposed of in an authorized landfill site, or used as fuel for combustion. Category 2 material may also be used for the manufacture of derived products.

Category 2 material may be rendered and then used for the production of organic fertilizers. It may also be rendered and used in an approved composting or anaerobic digestion plant. A very limited number of Category 2 materials (manure, digestive tract content) may be applied directly to land without processing provided there is no risk of transmitting a disease.

**IS 8895 : 2015**

tract content) may be applied directly to land without processing provided there is no risk of transmitting a disease.

### **6.5.3** *Disposal and Use of Category 3 Material*

**6.5.3.1** As low-risk material, there are a much wider range of options for use and disposal of Category 3 material compared to higher risk material. Category 3 material may like Category 1 and Category 2 material be incinerated, or rendered followed by incineration. Category 3 material may also be rendered followed by disposal in an authorized landfill (unlike higher category material this does not have to be pressure rendering) or used as fuel for combustion and for manufacture of derived products.

**6.5.3.2** Category 3 material may be rendered for the production of pet food and organic fertilizers. Rendered Category 3 material may also be used in the production of animal feeding stuffs, though transmissible spongiform encephalopathies (TSEs) related restrictions on the feeding of processed animal protein severely restrict this. Category 3 material may be used directly in approved composting or anaerobic digestion plants

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc No.: FAD 18 (2875).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

### BUREAU OF INDIAN STANDARDS

#### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
 Telephones : 2323 0131, 2323 3375, 2323 9402      Website: www.bis.org.in

#### Regional Offices:

	Telephones
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

**Branches:** AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. COIMBATORE. DEHRADUN.  
 FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KOCHI. LUCKNOW.  
 NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. VISAKHAPATNAM.

भारतीय मानक  
Indian Standard

IS 1982 : 2015

---



---

मीट देने वाले पशुओं का एंटी-मॉर्टम  
और पोस्ट-मॉर्टम निरीक्षण — रीति  
संहिता  
(दूसरा पुनरीक्षण)

**Ante-Mortem and Post-Mortem  
Inspection of Meat Animals — Code  
of Practice**  
( *Second Revision* )

ICS 67.120.01

© BIS 2015



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली-110002  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI-110002

[www.bis.org.in](http://www.bis.org.in) [www.standardsbis.in](http://www.standardsbis.in)

September 2015

Price Group 6



Slaughterhouse and Meat Industry Sectional Committee, FAD 18

## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Slaughterhouse and Meat Industry Sectional Committee had been approved by the Food and Agriculture Division Council.

Proper ante-mortem inspection of all animals before slaughter and proper post-mortem inspection after slaughter of food animals is essential to ensure that they are not affected with any disease or other condition which may render the flesh unwholesome. There are some diseases which are communicable from animals to human by contact and, therefore, ante-mortem inspection is also necessary for safeguarding the health of the consumer as well as other meat handlers. Post-mortem inspection is essential to detect carcasses, parts of carcasses and organs which may be diseased and, thereby, rendered unfit for human consumption.

Veterinary science and the science of meat hygiene should be applied throughout the food chain, starting at the farm of origin, so that fresh meat produced from slaughtered animals is safe and wholesome. Traditional practices may permit departures from some of the requirements when fresh meat is produced for local trade.

This standard was first published in 1962 and revised in 1971 with a view to modify the earlier requirements in the light of experience gained by various government and private agencies in the ante-mortem and post-mortem inspection of meat animals. The first revision of this standard incorporated number of important modifications such as; (a) camel, horse, mare, ass and mule were excluded from the scope of the standard as those animals were not slaughtered in the country; (b) the terminology was aligned with that of the '*The Meat Food Products Order, 1973*'; and (c) detailed instructions on dealing with anthrax infected carcasses were included.

This second revision is undertaken to align the standard with the Recommended International Code of Hygienic Practice for Meat (CAC/RCP 58 : 2005) and *Food Safety and Standard (Licensing and Registration of Food Businesses) Regulations, 2011*

## *Indian Standard*

# ANTE-MORTEM AND POST-MORTEM INSPECTION OF MEAT ANIMALS — CODE OF PRACTICE

( *Second Revision* )

### 1 SCOPE

This standard prescribes the code of practice for the ante-mortem and post-mortem inspection of meat producing animals.

### 2 TERMINOLOGY

For the purpose of this standard, the following definitions shall apply.

**2.1 Abattoir/Slaughterhouse** — Any establishment where specified animals are slaughtered and dressed for human consumption and that is approved, registered and/or listed by the competent authority for such purposes.

**2.2 Approved as Fit for Human Consumption** — It means the meat has been inspected and passed without any restrictions, and branded accordingly.

**2.3 Animals** — It Includes:

- a) *Large ruminants* — Cattle (bull, bullock/steer, calf, cow, heifer, stag) ; Buffalo (bull, bullock/ steer, calf, cow, heifer, stag)
- b) *Small ruminants* — Sheep (lamb, ram, ewe, gimmer, wether); goat (doe, kid, buck) and;
- c) *Pig* — barrow, boar, piglet, gilt, and sow

**2.4 Ante-Mortem Inspection** — Any procedure or test conducted by a competent person on live animals for the purpose of judgement of safety and suitability and disposition.

**2.5 Branding** — It means any mark or stamp approved by the controlling authority and also includes any tag or label bearing such mark or stamp.

**2.6 Carcass** — The body of any slaughtered food animal after bleeding, flaying and dressing.

**2.7 Chemical Residues** — The residues of veterinary drugs, insecticides, pesticides and heavy metals or other crop contaminants, as described in the definitions of the *Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011*.

**2.8 Competent Authority** — The official authority charged by the government with the control of meat hygiene, including setting and

enforcing regulatory meat hygiene requirements. In this case Food Safety and Standards Authority of India (FSSAI).

**2.9 Competent Body** — A body officially recognised and overseen by the competent authority to undertake specified meat hygiene activities.

**2.10 Competent Person** — A qualified veterinary doctor who has the training, knowledge, skills and ability to perform an assigned task, and who is subject to requirements specified by the competent authority.

**2.11 Condemned** — Inspected and judged by a competent person, or otherwise determined by the competent authority, as being unsafe or unsuitable for human consumption and requiring appropriate disposal.

**2.12 Dressing** — The progressive separation of the body of an animal into a carcass and other edible and inedible parts.

**2.13 Emergency Slaughter** — Slaughter by necessity of any animal that,

- a) has recently suffered traumatic injury and is judged to be in pain; or
- b) is affected by a condition that does not preclude its partial or conditional fitness for human consumption, but that is likely to deteriorate unless slaughter takes place immediately.

**2.14 Meat** — All edible parts (including edible offal) of any food animal slaughtered in an abattoir that are intended for or have been judged as safe and suitable for, human consumption.

**2.15 Meat Inspector** — A qualified veterinary doctor.

**2.16 Post-Mortem Inspection** — Any procedure or test conducted by a competent person on all relevant parts of slaughtered/killed animals for the purpose of judgement of safety and suitability and disposition.

**2.17 Veterinary Inspector** — Duly qualified veterinarian appointed or employed by a local authority or by the Central/State Government.

### 3 ANTE-MORTEM INSPECTION

**3.1** Animals described below should be subject to special controls, procedures or operations imposed by

**IS 1982 : 2015**

the competent authority (which may include denial of entry to the abattoir) when,

- a) animals are not sufficiently clean;
- b) animals have died in transit;
- c) a zoonotic disease posing an immediate threat to either animals or humans is present, or suspected;
- d) an animal health disease subject to quarantine restrictions is present, or suspected; and
- e) animal identification requirements are not met; or declarations from the primary producer, if required by the competent authority (including compliance with good veterinary practice in the use of animal medicines) are absent or inadequate.

**3.2** All animals presented for slaughter should be subjected to ante-mortem inspection, by a competent person whether on an individual or a lot basis. Inspection should include confirmation that the animals are properly identified, so that any special conditions pertaining to their place of primary production are considered in the ante-mortem inspection, including relevant public and animal health quarantine controls.

**3.3** Pregnant animals should be rejected.

**3.4** Animals presented for slaughter should be examined and judged for general pathological conditions and symptoms of communicable diseases so that entry of such animals into the sheds is prevented.

**3.5** Ante-mortem inspection should support post-mortem inspection by application of a specific range of procedures and/or tests that consider the behaviour, demeanour and appearance, as well as signs of disease in the live animal.

**3.6** Such ante-mortem inspection shall be made on the premises (Yards and Lairage) attached to the abattoir in which the animals are about to be slaughtered.

**3.7** All animals meant for slaughter should be rested at least for 24 h and should not be fed for at least twelve hours before slaughter but they should be provided with abundant water. In addition, all the precautions for animal welfare shall be followed as per *FSSAI Regulations, 2011*.

**3.8** The format for reporting Ante-Mortem Inspection for meat animals is given at Annex A.

**3.9** The following should be followed in ante-mortem inspection procedures:

- a) Ante-mortem inspection should be included as an integral component of an overarching risk-based system for the production of meat, with systems for process control incorporating appropriate components. Relevant information on the slaughter population, for example animal class, health status, geographical region of origin, should be utilised in both the design and implementation of ante-mortem inspection systems.
- b) Ante-mortem inspection, including procedures and tests, should be established by the competent authority according to a science and risk-based approach. In the absence of a risk-based system, procedures will have to be based on current scientific knowledge and practice.
- c) Ante-mortem procedures and tests may be integrated and implemented together so as to achieve public health and animal health objectives. In such cases all aspects of ante-mortem inspection should be science-based and be tailored to the relevant risks.
- d) Where indicated by public health concerns, measures additional to routine ante-mortem inspection may be required.

**3.10** Characteristics of a risk-based ante-mortem inspection programme are:

- a) Procedures for confirmation of proper animal identification in accordance with national legislation;
- b) Design and application of organoleptic procedures and tests that are relevant and proportional to meat-borne risks associated with clinical signs of illness and grossly-detectable abnormalities;
- c) Designing of procedures to the spectrum and prevalence of diseases and defects reasonably likely to be present in the slaughter population, taking into account the type of animal, geographical origin and primary production system;
- d) Integration with HACCP based process control to the extent practicable, for example, application of objective criteria for ensuring appropriate cleanliness of animals presented for slaughter;
- e) On-going designing of procedures to information received from the primary production unit, where practicable;
- f) Use of laboratory tests for hazards that are unaddressed by organoleptic inspection when their presence is

suspected, for example, chemical residues and contaminants; and

Return of information to the primary producer so as to seek continuous improvement in the safety and suitability status of animals presented for slaughter.

### **3.11 Implementation of Ante-Mortem Inspection**

#### **3.11.1 Role of the Competent Authority**

The competent authority should determine how ante-mortem inspection is to be implemented, including identification of the components that may be applied at primary production rather than the abattoir. The competent authority should establish the training, knowledge, skills and ability requirements of all personnel involved, and the roles of the official inspector, including the veterinary inspector. Verification of inspection activities and judgements should be undertaken as appropriate by the competent authority or competent body. The final responsibility for verifying that all regulatory requirements are met should lie with the competent authority.

**3.11.2** The responsibilities of the establishment operator in respect of ante-mortem inspection include,

- a) providing verifiable information required by the competent authority with respect to ante-mortem inspection carried out at primary production;
- b) segregation of animals if, for example, they have recently given birth during transport or in lairages, or have recently aborted and/or show retained foetal membranes;
- c) applying identification systems for individual animals or lots of animals until the time of slaughter that document the outcome of ante-mortem inspection, and after slaughter in the case of suspect animals;
- d) presentation of animals that are sufficiently clean; and
- e) prompt removal of animals that have died in the lairage, for example, from metabolic disease, stress, suffocation, with the permission of the competent person undertaking ante-mortem inspection.

**3.12** Ante-mortem inspection at the abattoir should occur as soon as is practicable, after delivery of slaughter animals. Only animals that are judged to be sufficiently rested should proceed to slaughter, but should not be withheld from slaughter any longer than necessary. If ante-mortem inspection has occurred and there is a delay of more than 24 h before slaughter, ante-mortem inspection should be repeated.

**3.12.1** Ante-mortem inspection systems required by the competent authority should include the following:

- a) All relevant information from the level of primary production should be taken into account on an on-going basis, for example, declarations from the primary producers relating to the use of veterinary drugs, information from official hazard control programmes;

**IS 1982 :  
2015**

- b) Animals suspected as being unsafe or unsuitable for human consumption should be identified as such and handled separately from normal animals;
- c) Results of ante-mortem inspection are made available to the competent person undertaking post-mortem inspection before animals are inspected at the post-mortem stations so as to augment final judgment. This is particularly important when a competent person undertaking ante-mortem inspection, judges that a suspect animal can proceed to slaughter under special hygiene conditions;
- d) In more equivocal situations, the competent person undertaking ante-mortem inspection may hold the animal (or lot) in special facilities for more detailed inspection, diagnostic tests, and/or treatment;
- e) Animals condemned as unsafe or unsuitable for human consumption should be immediately identified as such and handled in a manner that does not result in cross-contamination of other animals with food-borne hazards; and
- f) Reason for condemnation should be recorded, with confirmatory laboratory tests being carried out if deemed necessary. Feed back of this information to the primary producer should take place.

**3.13** Slaughter of animals under an official or officially-recognized programme for the eradication or control of a specific zoonotic disease, for example, salmonellosis, should only be carried out under the hygiene conditions specified by the competent authority.

**3.14** Ante-mortem judgment categories include,

- a) passed for slaughter;
- b) passed for slaughter subject to a second ante-mortem inspection, after an additional holding period, for example, when animals are insufficiently rested, or are temporarily affected by a physiological or metabolic condition;

- c) passed for slaughter under special conditions, that is deferred slaughter as suspects, where the competent person undertaking ante-mortem inspection suspects that post-mortem inspection findings could result in partial or total condemnation;

condemned for public health reasons, that is due to: meat-borne hazards, occupational

#### IS 1982 : 2015

health hazards, or likelihood of unacceptable contamination of the slaughter and dressing environment following slaughter;

- e) condemned for meat suitability reasons;
- f) emergency slaughter, when an animal eligible for being passed under special conditions could deteriorate, if there was a delay in slaughter; and
- g) condemned for animal health reasons, as specified in relevant national legislation.

#### 3.15 Information on Animals Presented for Slaughter

The competent authority may require monitoring of animals presented for slaughter to establish baseline information on the prevalence of hazards in the slaughter population, for example, specified meat-borne pathogens, chemical residues greater than maximum residue limits. The competent authority should design and implement these monitoring activities according to national public health goals. Systems should be in place that provide on-going information on animals presented for slaughter for incorporation into HACCP plans and/or quality assurance programmes that are part of process control, information back to the primary producer on the safety and suitability status of animals presented for slaughter and information to the competent authority that facilitates on-going review.

### 4 POST-MORTEM INSPECTION

**4.1** All carcasses and other relevant parts should be subjected to post-mortem inspection, which preferably should be part of an overarching, risk-based system for the production of meat.

**4.2** Post-mortem inspection should be carried out without delay after dressing of the carcass is complete. Some lesions may fade with time. Conversely, it should be possible to set suspect carcasses aside for re-inspection later, as some lesions will intensify with time.

**4.3** The design of post-mortem inspection systems:

**4.3.1** Post-mortem inspection of carcasses and other relevant parts should utilise information from primary production and ante-mortem inspection, together with the findings from

organoleptic inspection of the head, carcass and viscera, to make a judgement on the safety and suitability of parts intended for human consumption.

**4.3.2** Post-mortem procedures and tests may be integrated and implemented together so as to achieve public health and animal health objectives. In such cases, all aspects of post-mortem inspection should be science based and be tailored to the relevant risks.

**4.3.3** Relevant information on the animal population, for example animal type, health status, geographical region of origin, should be utilised in both the design and implementation of post-mortem inspection systems.

**4.3.4** Where indicated by public health concerns, routine screening of carcasses and other relevant parts by methods other than organoleptic inspection may be required for suspected hazards, for example testing for *Trichinella* spp. The format for reporting Post-Mortem Inspection for meat animals is given at Annex B.

**4.3.5** The guidelines for post mortem inspection requirements for Heads, Viscera and Carcasses in given at Annex C.

**4.3.6** Characteristics of a risk-based post-mortem inspection programme are,

- a) design and application of organoleptic procedures and tests that are relevant and proportional to meat-borne risks associated with grossly-detectable abnormalities;
- b) tailoring of procedures to the spectrum and prevalence of diseases and defects reasonably likely to be present in the particular slaughter population, taking into account the type (age), geographical origin and primary production system of the slaughter animals, for example multiple incisions of relevant muscles in all pigs from geographical regions where *Taenia solium* is present;
- c) procedures that minimize cross-contamination through handling to the greatest extent practicable, and may include procedures that are limited to visual observation of carcasses and other relevant parts in the first instance, if justified by risk assessment;
- d) inspection of non-edible parts of animals where they may play an indicator role in the judgement of edible parts;
- e) modification of traditional procedures where scientific investigation has shown them to be ineffective, or, of themselves, hazardous to food, for

- example, routine incision of lymph nodes of young animals to detect granulomatous abnormalities;
- f) application of more intensive organoleptic procedures on a routine basis when a disease or condition capable of general distribution is found in a single part of a carcass and other relevant parts, for example, cysts of *Taenia saginata* in cattle, xanthosis;
  - g) application of additional risk-based inspection procedures on a routine basis when live animals are positive to a diagnostic test, for example, tuberculin test in cattle, mallein test in horses;
  - h) use of laboratory tests for hazards that are unaddressed by organoleptic inspection, e.g., *Trichinella spp.*, chemical residues and contaminants;
  - j) application of measurable outcomes of organoleptic inspection that reflect a risk-based approach;
  - k) integration with HACCP plans for other process control activities;
  - m) on-going tailoring of procedures to take into consideration information received from the primary producer on a lot-by-lot basis; and
  - n) return of information to the primary producer so as to seek continuous improvement in the safety and suitability status of animals presented for slaughter.

#### 4.4 Implementation of Post-Mortem Inspection Procedures

**4.4.1** Inspection should take into account all relevant information from the level of primary production and ante-mortem inspection, for example, information from official or officially-recognised hazard control programmes, information on animals slaughtered as suspects.

**4.4.2** The competent authority should determine: how post-mortem inspection is to be implemented, the training, knowledge, skills and ability required of personnel involved (including the role of the official inspector, the veterinary inspector, and any personnel not employed by the competent authority), and the frequency and intensity of verification activities. The competent authority should have the legal power to set and enforce regulatory meat hygiene requirements. The competent authority should,

- a) establish regulatory systems for recall, traceback, product tracing and requirements for training, knowledge, skills and ability of personnel.
- b) undertake specified meat hygiene controls like official sampling programmes, ante and post-mortem activities and official certification.

- c) verification of the compliance of the regulatory requirements for food safety by the establishment operator, as prescribed by FSSAI.

**4.4.3** Carcasses and other relevant parts condemned by the competent person undertaking post-mortem inspection, as unsafe or unsuitable for human consumption should be identified as appropriate and handled in a manner that does not result in cross-contamination of meat from other carcasses and relevant parts. The reason for condemnation should be recorded, and confirmatory laboratory tests may be taken, if deemed necessary

**IS 1982 :  
2015**

#### 4.4.4 Responsibilities of the Establishment Operator

- a) Maintenance of the identity of a carcass and other relevant parts (including blood as appropriate) until inspection is complete;
- b) Skinning and dressing of heads to the extent necessary to facilitate inspection, for example, partial skinning to allow access to sub-maxillary lymph nodes, detaching of the base of the tongue to allow access to the retropharyngeal lymph nodes;
- c) Skinning of heads to the extent necessary to allow hygienic removal of edible parts, when this is a processing option;
- d) Presentation of a carcass and other relevant parts for inspection according to the requirements of the competent authority;
- e) Retention in the inspection area of all carcasses and other relevant parts required for inspection, until inspection and judgement has been completed;
- f) Provision of facilities for identifying and retaining all carcasses and other relevant parts that require more detailed inspection and/or diagnostic tests before a judgement on safety and suitability can be made, in a manner that prevents cross-contamination of meat from other carcasses and other relevant parts;
- g) Condemnation of parts of the carcass trimmed from the region of the sticking wound;
- h) Use of identification marks (as specified by the competent authority) that communicate the outcome of post-mortem inspection; and
- j) Co-operation with competent persons undertaking post-mortem inspection, in

all other ways necessary to facilitate effective post-mortem inspection, for example, access to processing records, and easy access to all carcasses and other relevant parts.

#### 4.4.5 *Post-Mortem Inspection Systems*

- a) Procedures and tests that are risk-based to the extent possible and practicable;
- b) Confirmation of proper stunning and bleeding;

Availability of inspection as soon as is practicable after completion of dressing;

#### IS 1982 : 2015

- d) Visual inspection of the carcass and other relevant parts, including inedible parts, as determined by the competent authority;
- e) Palpation and/or incision of the carcass and other relevant parts, including inedible parts, as determined by the competent authority according to a risk-based approach;
- f) Additional palpation and/or incisions, as necessary to reach a judgement for an individual carcass and other relevant parts, and under appropriate hygiene control;
- g) More detailed inspection of edible parts intended for human consumption compared with inspection of those parts for indicator purposes alone, as appropriate to the circumstances;
- h) Systematic, multiple incisions of lymph nodes where incision is necessary;
- j) Other organoleptic inspection procedures, for example, smell, touch;
- k) Where necessary, laboratory diagnostic and other tests carried out by the competent authority or by the establishment operator under instruction;
- 38 Performance objectives or performance criteria for the outcomes of organoleptic inspection, if available;
- 39 Regulatory authority to slow or halt processing so as to allow adequate post-mortem inspection at all times;
- p) Removal of specified parts, if required by the competent authority, for example, specified risk materials for BSE; and
- q) Proper use and secure storage of equipment for health marking.

### 4.5 Post-Mortem Judgement

**4.5.1** Post-mortem judgment of edible parts as safe and suitable for human consumption should primarily be based on food-borne risks to human health. Other risks to human health, for example from occupational exposure or from handling of

meat in the home, also are an important consideration. Judgments in relation to suitability characteristics of meat should reflect consumer acceptability requirements appropriate to intended end use.

**4.5.2** Post-mortem inspection programmes may be utilized to identify and judge carcasses and other relevant parts according to risks to animal health, as specified in relevant national legislation.

**4.5.3** Judgement of edible parts as safe and suitable should take into account information from the following sources:

- a) Information from primary production;
- b) Observations made of animals in the lairage;
- c) Ante-mortem inspection; and
- d) Post-mortem inspection, including diagnostic tests, where required.

**4.5.4** Judgments should be based on science and risks to human health to the greatest extent possible, with guidelines being provided by the competent authority. Judgments should only be made by competent persons. The level of training, knowledge, skills and ability required for judgment may be less in situations where edible parts demonstrating a specific abnormality are always judged to be unsafe or unsuitable for human consumption and appropriately disposed of.

**4.5.5** Where the initial results of post-mortem inspection are insufficient to accurately judge edible parts as safe or suitable for human consumption, a provisional judgment should be followed up with more detailed inspection procedures and/or tests. Pending the outcome of more detailed inspection and/or diagnostic tests, all parts of the animal that are required for further investigation should be held under the control of the competent person undertaking these activities.

#### 4.5.6 *Judgement Categories for Edible Parts*

- a) Safe and suitable for human consumption;
- b) Safe and suitable for human consumption, subject to application of a prescribed process, for example cooking, freezing;
- c) Held on suspicion of being unsafe or unsuitable, pending the outcome of further procedures and/or tests;
- d) Unsafe for human consumption but able to be used for some other purpose, for example, pet-food, feed and feed ingredients, industrial non-food use, providing there are adequate hygiene controls to prevent any transmission of hazards, or illegal re-entry to the human food chain;

- e) Unsafe for human consumption and requiring condemnation and destruction; and
- f) Unsafe for animal health reasons as specified in national legislation, and disposed of accordingly.

**4.5.7** When edible parts are judged to be safe and suitable for human consumption subject to application of a prescribed process, the specifications for that process should be verified by the competent authority as sufficient to eliminate/reduce or adequately remove the hazard or condition of concern, for example specifications for retorting, high temperature rendering and freezing.

## 5 DISPOSITION AND BRANDING

**5.1** After a decision has been made by an inspector that meat is fit for human consumption, conditionally fit for human consumption or unfit for human consumption, it is necessary that it be marked in a systematic manner to show the result of inspection. This is to enable control and proper handling/disposal prior to its reaching the consumer as well as to assure consumers of the official guarantee of safety and wholesomeness of meat.

**5.2** The size, shape, and wording of any brand, as well as the colour and composition of marking ink used for the branding of meat, should be laid down by the competent authority and should be uniform throughout the country. Consideration should be given at the design stage to the need to achieve legible impressions of brands under working conditions. Brands comprising suitable permitted ink shall be applied to the meat and the brand shall contain FSSAI License Number.

**5.3** Carcasses, heads, organs and viscera that as a result of ante-mortem and post-mortem inspection are passed as fit for human consumption without further restrictions should be legibly and appropriately branded.

**5.4** Any meat (including heads, organs and viscera) that requires treatment by heat or by freezing to render it fit for human consumption should be suitably identified and, if necessary, branded as such and kept under the supervision of an inspector until the necessary treatment has been completed and the carcass and any parts can be passed as fit for human consumption.

**5.5** All carcasses, parts of carcasses, organs and viscera that as a result of ante-mortem and post-mortem inspection are found to be unfit for human consumption, should be held securely to the satisfaction of the inspector until they are branded, stained, rendered, denatured or otherwise destroyed, so excluding them from the human food chain.

**5.6** Brands and stamps used to apply the marks of inspection should be kept clean while in use. They should be held under the control of an

inspector and used only under an inspector's supervision.

**5.7** The stamping ink may be prepared based on the following procedures:

- a) A solution containing 1 to 2 percent of fuchsine in acetic acid may be used. The fuchsine is dissolved in just enough acetic acid to bring about the solution and then glycerine is added to make up the required quantity.

**IS 1982 : 2015**

- b) Alternatively, a stamping ink prepared according to the following formula may be used:

Methyl violet	: 35 g
Cane sugar	: 450 g
Ethyl alcohol	: 1 363 ml
	: 1 636 ml
Water	: ml

The sugar is dissolved in water, the alcohol, then-added and finally the methyl violet. The solution is stirred and allowed to stand for 12 h before use. Stamps preferably bearing heads of different animals should be used.

## 6 CHEMICAL RESIDUES

If there is any suspicion about the chemical residues during inspection, then the sample shall be sent for residue analysis to any NABL accredited laboratory.

## 7 UTILIZATION OF MEAT INSPECTION FINDINGS

**7.1** The controlling authority should make meat inspection findings available to assist other agencies involved in human health and animal health.

**7.2** In meeting this objective, the controlling authority should ensure that surveillance activities are distinguished from normal meat inspection activities, and do not jeopardize the efficient delivery of meat inspection services or the efficient operation of the meat industry.

**7.3** Where possible the controlling authority should take an active role in animal health management programmes that assure a safe and wholesome food supply and information on zoonotic disease should be provided to the appropriate agencies.

**7.4** The controlling authority should closely collaborate with the authorities responsible for animal disease control and with public health authorities so that the greatest possible use can be made of meat inspection findings.

**7.5** Research and surveillance activities should be distinguished from routine meat inspection and from those laboratory examinations that may be required for the immediate purpose of



decision making, and should have no delaying effect upon the normal course of post-mortem judgement.

**7.6** Notifiable animal disease detected at ante-mortem or post-mortem inspection should be reported directly to the veterinary authority responsible for animal disease control.

IS 1982 : 2015

**ANNEX A***(Clause 3.8)***ANTE-MORTEM INSPECTION REPORT**

<b>Sl No.</b>	<b>Examination</b>	<b>Report</b>
1.	Owners name and address	
2.	No. of animals in the lot and arrival time	
3.	Species and sex of the animal	
4.	Diseases and treatment history	
5.	Time and date of ante-mortem inspection	
6.	Clinical signs and body temperature (if relevant)	
7.	Reasons why the animal was held	
8.	Ante-mortem inspection of animal at rest and motion (Individual and collective)	
	Nutritional status	
	Cleanliness	
	Signs of diseases and abnormalities	
	Abnormalities found in	
	a) Respiration	
	b) Behaviour	
	c) Gait	
	d) Posture	
	e) Structure and conformation	
	f) Discharge or protrusion from body opening	
	g) Abnormal color	
	h) Abnormal odour	
9.	Judgement	
10.	Remarks (if any)	

Place:

Date:

Signature of veterinarian (with office seal)

Name and registration number

**ANNEX B**  
(*Clause 4.3.4*)

**POST-MORTEM INSPECTION REPORT**

SI No.	Examination	Report
1.	Owners name and FSSAI License No.	
2.	Time and date of post-mortem Inspection	
3.	Identity of the carcass (age and tag number)	
4.	Condition of the carcass	
5.	Status of rigor mortis	
6.	Serous infiltration	
7.	Colour of the carcass	
8.	Presence of off-odours	
9.	Presence of external wounds	
10.	Examination of head and tongue	
11.	Examination of lungs	
12.	Examination of spleen	
13.	Examination of heart	
14.	Examination of stomach	
15.	Examination of liver	
16.	Examination of mesentery	
17.	Examination of mammary glands	
18.	Examination of kidneys	
19.	Examination of uterus	
20.	Examination of bladder	
21.	Examination of lymph nodes	
22.	Judgement	

Place:

Date:

Signature of meat inspector (with office seal):

Name and registration number:

IS 1982 : 2015

**ANNEX C**  
(Clause 4.3.5)

**(A) GUIDELINE POST-MORTEM INSPECTION REQUIREMENTS — HEADS**

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

	<b>Cattle</b> (Includes Calves)	<b>Sheep and Goat</b> (Includes Lambs)	<b>Pigs</b>
General	View external surfaces. For cattle and pigs view the oral and nasal cavities.		
Lymph nodes			
Submaxillary	Incise (a)	—	Incise
Parotid	Incise (a)	—	—
Retropharyngeal	Incise (a)	—	—
Tongue	Palpate (a)	—	—
Other	Inspection for <i>C. bovis</i> (b)		Inspection for <i>C.</i> <i>cellulosae</i> (c)

## NOTES

1 'incise' as used above means to examine by viewing and multiple incision or slicing.

2 'palpate' as used above means to view and palpate.

3 (a) means inspection is view only in calves up to 6 weeks of age.

4 except in calves up to 6 weeks of age, the oesophagus of all cattle and calves should be separated from its attachment to the trachea, and viewed.

5 (b) the muscles and the lymph nodes (lymphonodi sub-rhomboidei) beneath one of the two scapular cartilages of all grey or white horses should be examined for melanosis after loosening the attachment of that one shoulder.

**(B) GUIDELINE POST-MORTEM INSPECTION REQUIREMENTS — VISCERA**

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

	<b>Cattle</b> (Includes calves)	<b>Sheep and Goats</b> (Includes lambs)	<b>Pigs</b>
<u>Lymph Nodes</u>			
mesenteric	View	View	Palpate (b)
portal	Incise (a)	Palpate	Palpate
bronchial and mediastinal	Incise (a)	Palpate	Incise
Gastro-intestinal tract	View (a)	View	View
Spleen	Palpate	View	View
Liver	Palpate. View the gall bladder (does not apply to horses). For cattle over 6 weeks of age, incision as deemed appropriate to detect liver fluke.		
Lungs	Palpate. Except in sheep and goats, the bronchi should be opened up by a transverse incision across the diaphragmatic lobe. For horses, the larynx, trachea and main bronchi should be incised.		
Heart	View after removal of the pericardium. Additional inspection requirements for cattle over 6 weeks of age are in (b). Conditional additional inspection requirements for pigs are set out in (c).		
Kidney	View after enucleation.		
Uterus (Adults)	Palpate	View	View

## NOTES

1 'incise' as used above means to examine by viewing and multiple incision or slicing.

2 'palpate' as used above means to view and palpate.

3 (a) means inspection is view only in calves up to 6 weeks of age.

4 (b) means incise if any lesions were observed in the submaxillary lymph nodes.

## IS 1982 : 2015

5 (c) the hearts of all cattle and calves over the age of 6 weeks should be inspected for *Cysticercus bovis* either by making one or more incisions from base to apex or by everting the heart and making shallow incisions that enable the cardiac valves and muscle tissue to be inspected — this inspection of the heart should also be undertaken in calves up to 6 weeks of age from areas where *Cysticercus bovis* is a common post-mortem inspection finding.

6 (c) the heart of all pigs derived from areas where there is a risk of *Cysticercus cellulosae* being present should be opened up and a deep incision made into the septum.

---

**(C) GUIDELINE POST-MORTEM INSPECTION REQUIREMENTS — CARCASSES**

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

	<b>Cattle</b> (Includes calves)	<b>Sheep and Goats</b> (Includes lambs)	<b>Pigs</b>
General	Examine arcases (including musculature, exposed bone, joints, tendon sheaths etc) to determine any disease or defect. Attention should be paid to bodily condition, efficiency of bleeding, colour, condition of serous membranes (pleura and peritoneum), cleanliness and presence of any unusual odours		
Lymph nodes			
superficial inguinal	Palpate (a)	Palpate	Palpate
external and internal	Palpate	Palpate	Palpate (b)
Iliac	Palpate	Palpate	—
Pre-pectoral	—	Palpate	—
Popliteal	Palpate	—	Palpate
Renal			Palpate castration site.
Others			

## NOTES

1 (a) means incise as a routine when udder is, or has been, in lactation.

2 (b) means iliac nodes in pigs.

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

## Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

## Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc No.: FAD 18 (2826).

## Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 2323 0131, 2323 3375, 2323 9402

Website: [www.bis.org.in](http://www.bis.org.in)

### Regional Offices:

	Telephones
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

**Branches:** AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. COIMBATORE. DEHRADUN. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KOCHI. LUCKNOW. NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. VISAKHAPATNAM.

भारतीय मानक  
Indian Standard

IS 4393 : 2016

---



---

बूचड़खाने के लिए आधारभूत अपेक्षाएँ  
(दूसरा पुनरीक्षण)

**Basic Requirements for an Abattoir**  
(*Second Revision*)

ICS 67.120.10

© BIS 2016



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS  
मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली-110002  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI-110002  
[www.bis.org.in](http://www.bis.org.in) [www.standardsbis.in](http://www.standardsbis.in)

May 2016

Price Group 9

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

## FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Slaughter House and Meat Industry Sectional Committee had been approved by the Food and Agriculture Division Council.

Though millions of animals like sheep, goats, pigs and cattle are slaughtered every year in the country, the conditions of slaughter houses where these animals are being slaughtered are far from satisfactory requirements. These slaughter houses have not been constructed on modern lines and they do not fulfill the requirements of hygiene, sanitation, public health and of the prevention of cruelty to animals. This standard is being formulated to help in improving the present conditions of slaughter houses and in guiding the construction of new slaughter houses on modern lines especially with a view of facilitating greater utilization of slaughterhouse byproducts.

The fundamental principle of hygiene, as well as economic consideration demand that the slaughtering of animals for human consumption is carried out in establishments specially constructed for the purpose and kept under constant sanitary control. A well designed and constructed structure is needed to systematically pursue slaughter of food animals, the dressing of carcasses and handling of by-products produced thereof. Further, when the process progresses, there is greater risk of contamination of the product. Therefore, prevention is determined by the layout and the flow pattern of the product. Thus, the site of the slaughterhouse must be chosen carefully and designed appropriately. The facilities provided must be suitable for the species to be handled anticipating throughput and kind of operations to be conducted (whether by-products are to be handled in the facility itself or elsewhere).

This standard was first published in 1970 and revised in 1979. The first revision incorporated improved lay-outs, flow diagrams and requirements for installations and plant wastes disposal.

This second revision has been undertaken to incorporate a number of modifications and additions like those of improved layout plans and flow diagrams. In this revision, requirements for location of abattoirs and list of facilities required in an abattoir and requirements for rails for carcasses have been updated. In this revision, list of basic equipments required for slaughter and dressing has been incorporated. Further, requirements for cleaning and sanitation and requirements for meat worker/handlers have also been incorporated. This standard has been formulated based on the inputs received from the Department of Meat Science and Technology, Madras Veterinary College, Chennai, Tamil Nadu and considering 'Standard design for small-scale modular slaughterhouses (FAO, 1988) and Prevention of Cruelty to Animals (Slaughter House) Rules, 2001 and incorporating various animal welfare practices suggested by PeTA, India.

Animal Welfare Act, 2001 and Prevention of Cruelty to Animal (Slaughter House) Rules, 2001, may be referred to for issues related to humane method of treatment to animals.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.



# Indian Standard

## BASIC REQUIREMENTS FOR AN ABATTOIR

### ( Second Revision )

#### 1 SCOPE

This standard covers the typical layout plan, hygienic, sanitary, basic requirements for an abattoir for carrying out slaughter of cattle, sheep, goats and pigs.

#### 2 REFERENCES

The following standards contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
1982 : 2015	Code of practice for ante-mortem and post-mortem inspection of meat animals (second revision)
2190 : 2010	Selection, installation and maintenance of first-aid fire extinguishers — Code of practice
6628 : 1972	Specification for slide rails for use in abattoirs
10500 : 2012	Drinking Water — Specification (second revision)

#### 3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 1982 shall apply.

#### 4 LOCATION

The following facilities are considered mandatory in the proposed site for construction of an abattoir:

- d. Availability of stock (food animals) in and around the area. It must be located closer to production centre (livestock farms) rather than consumption centres as transport of meat either in refrigerated or non-refrigerated trucks is much easier than transporting live animals, which is a critical determinant of meat quality.
- e. Copious supply of potable water (see IS 10500) and three phase electricity connection.

- f. Adequate facilities for handling the effluent generated.
- d) Contiguity with uncongested road and rail network.
- e) Proximity to public transport, sufficiently available throughout the day.
- f) Freedom from flooding, objectionable odours, smoke, dust or other contamination (industrial area).
- g) The site should be away from human dwellings and should be away from airports in order to avoid bird menace.
- h) Remoteness from residential dwellings and other developments that might pose a problem of complaints of noise and odour.
- j) Ground suitable for good foundations including piling.
- k) Finally it must have enough land for possible future expansion.

NOTE — In case the construction is within the municipal limits, plan for construction shall follow the relevant bye-laws prescribed by the municipal authorities of the place.

#### 5 LAYOUT PLAN

5.1 The abattoirs shall have the following essential facilities:

1. Proper transport of animals.
2. Facilities for proper unloading.
3. Holding pens for animals before slaughter (Lairage).
4. Ante mortem inspection facility (see IS 1982).
5. Foot dip with disinfectants.
6. Stunning pen/area.
7. Carrying out humane slaughter/Religious - Jhatka/Halal methods.
8. Overhead rail system.
9. Slaughter hall to ensure maintenance of strict hygiene during slaughter.
10. Facilities for flaying and dressing and washing of carcasses.
11. Post mortem examination facilities (see IS 1982).
12. Hot water washing facilities (82°C).
13. Knife sterilizers.
14. Emergency slaughter hall.

Detained and condemned meat room

IS 4393 : 2016

16. Movable or permanent working platforms.
17. Wide doors (1.37m/4.5 feet) for free passage of meat carcasses.
18. Knee/elbow/foot operated wash basins.
19. Separate rooms for cleaning gut, stomach and intestines.
20. Stainless steel bins for blood, edible and inedible offals.
21. Storage of fats/hide/pig bristles/horns/hooves, if necessary.
22. Separate demarcation between clean and unclean area.
23. Meat inspector/veterinarian room.
24. Veterinary laboratory.
25. Lockers/rest room/laundry/toilets for meat handlers.
26. Store room.
27. Electrical and machine room.
28. Chilling and freezing rooms.
29. Boiler and steam generators.
30. Isolation pen for sick and suspected animals.
31. Water proof flooring and side walls.
32. Proper drainage with catch basins.
33. Traps and vents for drainage.
34. Good ventilation with adequate lighting.
35. Potable water supply and storage tanks.
36. Effluent treatment plant.
37. Separate place for storing manure.
38. Protection against pest and vermin.
39. Office room, first aid and security room.
40. Facility for vehicle washing.
41. Non-corrodible food grade equipment and instruments.
42. Disposal of condemned carcass/material — Incineration.
43. Rendering plant.
44. Refrigerated or non-refrigerated covered vehicles/trucks for transport of carcass.
45. Dispatch area for finished product.

5.1.1 Typical layout plan and flow diagram for an abattoir for slaughtering cattle are given in Fig. 1 and Fig. 2, respectively. Typical layout plan and flow diagram for an abattoir for slaughtering pigs are given in Fig. 3 and Fig. 4, respectively. Typical layout plan and flow diagram for an abattoir for slaughtering goat and sheep are given in Fig. 5 and Fig. 6, respectively. These figures are for guidance only. The plan may vary depending on shape and size of plot, number of animals to be slaughtered per day and individual requirements of a particular abattoir.

5.1.2 The retail or wholesale market for meat, if required, can be included within the complex itself, the same should be physically excluded from the rest of the establishment in such a manner that the customers have an access only to these sections where such business is transacted.

5.2 Abattoirs shall have an adequate separation between clean and unclean sections, which shall be arranged in such a way that from the introduction of a live animal into the abattoir up to the emergence of meat and offal classed as fit for human consumption, there shall be a continuous process, without any possibility of reversal, inter-section or over lapping between the live animals and meat, and between meat and by-products or waste. Typical flow diagrams for offals and by-products (rendering) are given in Fig. 7 and Fig. 8.

5.2.1 A flow diagram for basic operation of an abattoir is shown in Fig. 9 for information and guidance only. The layout of entire abattoir, as far as possible, should have a forward flow.

5.3 Other Factors Affecting the Layout of the Abattoir and Allied Operations on Site

5.3.1 Prevailing Winds

Prevailing winds shall blow from the clean side to the unclean side of the abattoir premises.

5.3.2 Natural Slope

Natural slope shall be such that rainwater and runoff from the unclean area shall not flow into the abattoir, nor shall they flow from the unclean to the clean side of the premises.

5.4 Area Required

Generally for a small abattoir (up to 30 000 units/year) the area required will be about 1-2 acres. For a medium plant (50 000 + units/year) about 2-4 acres will be required. A large abattoir handling over 100 000 units annually will require about 4-6 acres of land.

NOTE — Animal unit is a term commonly used to describe the number of animals slaughtered in an abattoir. An animal unit is the equivalent of one adult bovine or two pigs or three calves or five sheep.

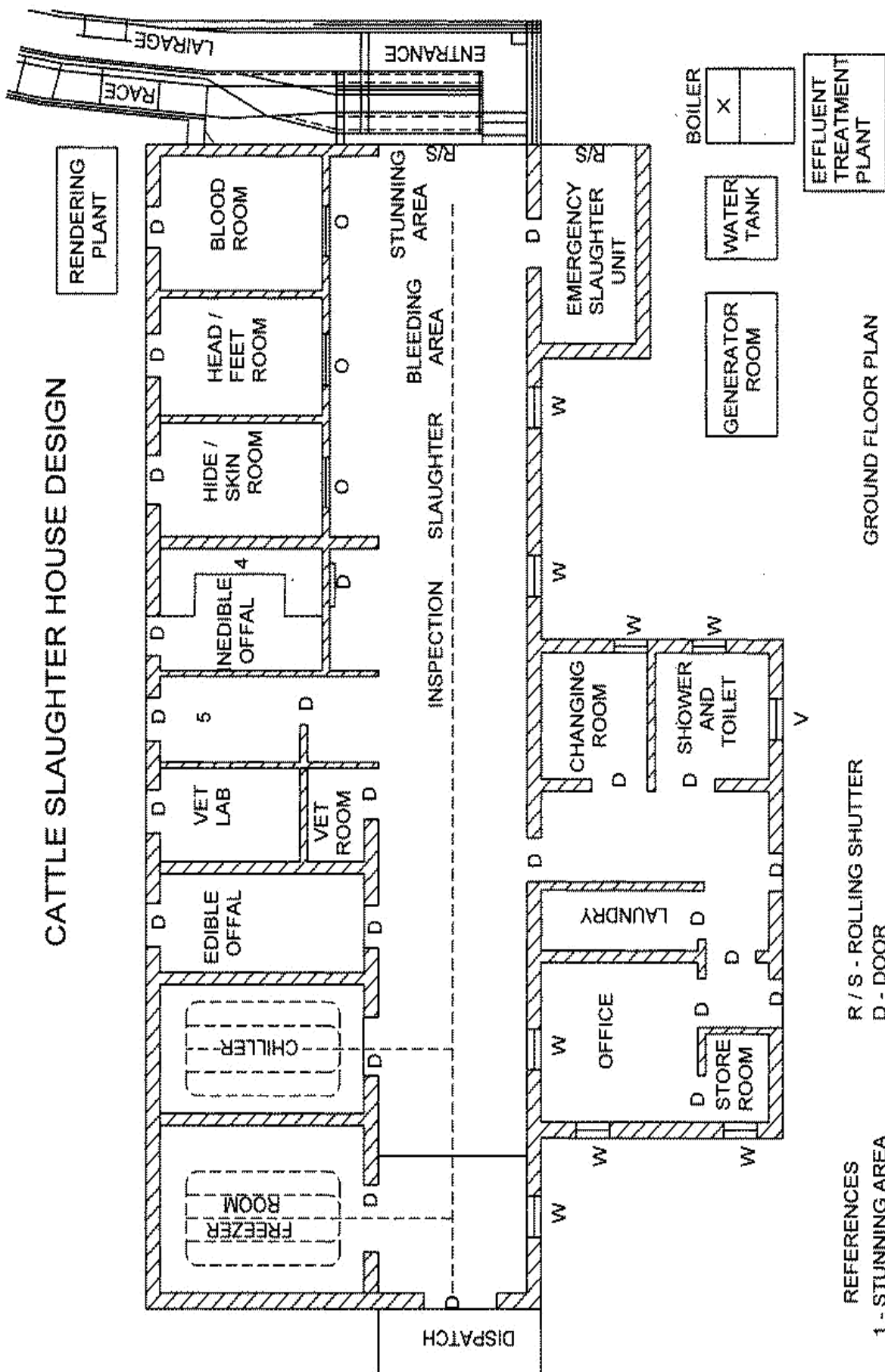
6 UNITS IN AN ABATTOIR

6.1 In view of the facilities to be provided (see 5.1), the abattoir shall have the following units:

- a) Reception area or resting grounds,
- b) Lairages,
- c) Slaughter halls,
- d) Ancillary accommodation,
- e) Isolation block, and

Chiller and freezer rooms

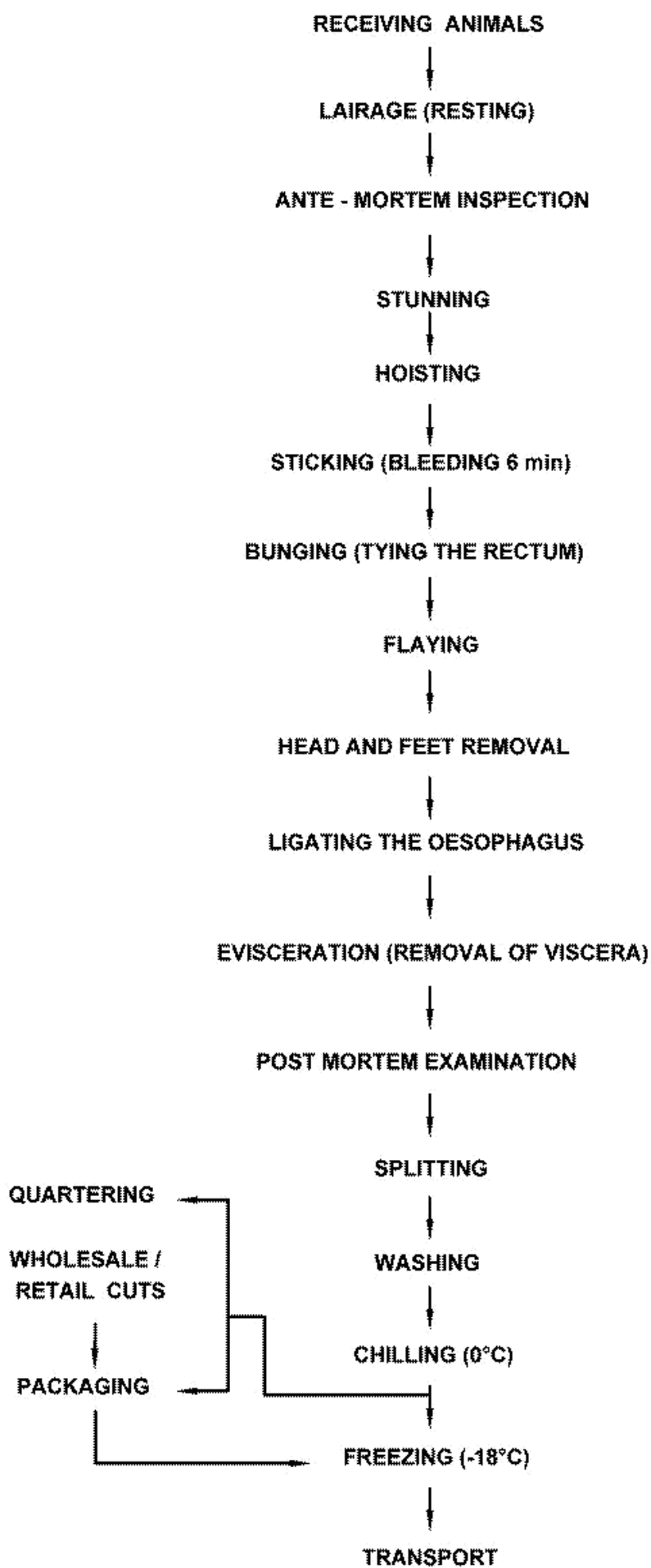
CATTLE SLAUGHTER HOUSE DESIGN

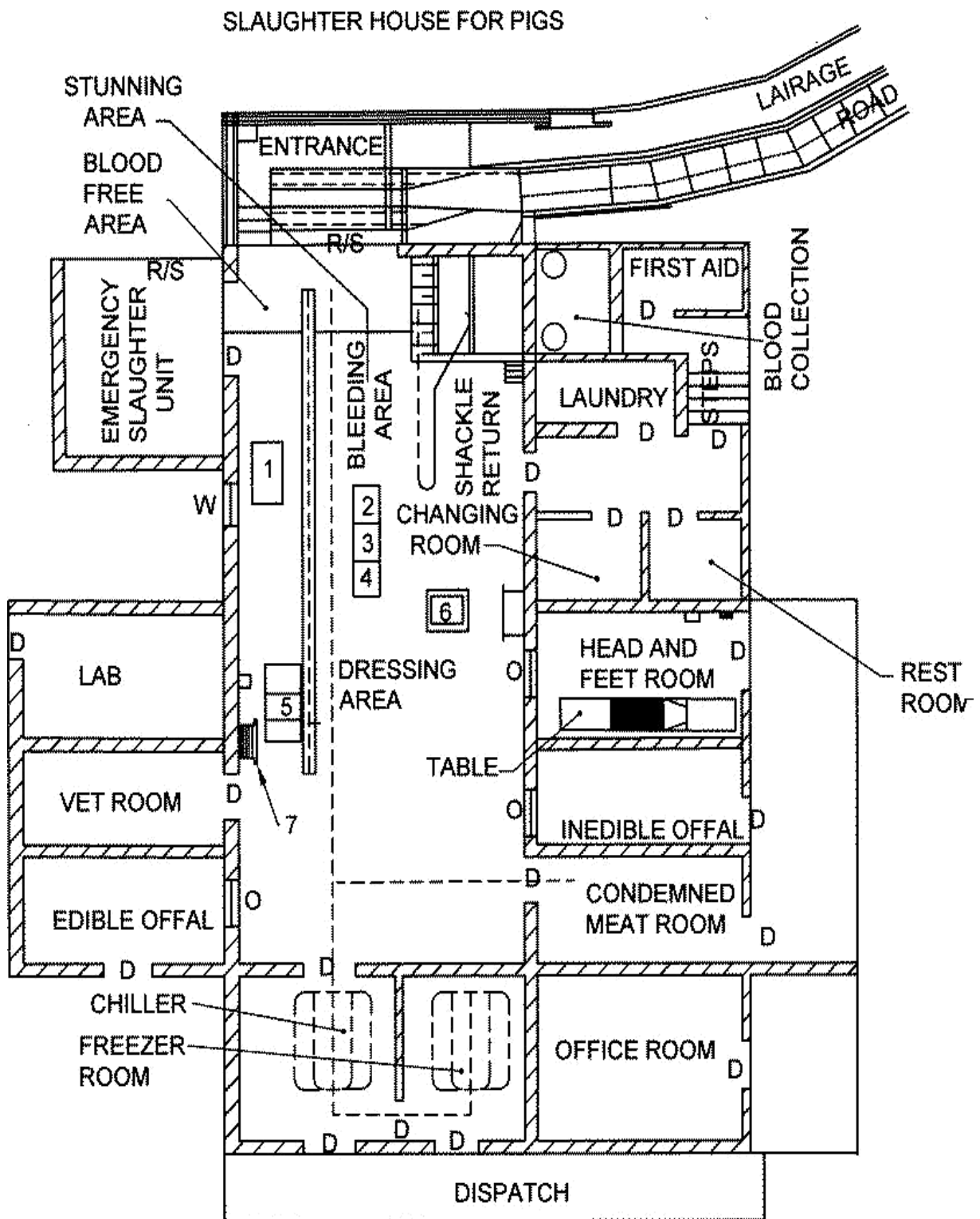


- REFERENCES
- 1 - STUNNING AREA
  - 2 - EQUIPMENT ROOM
  - 3 - TROUGH
  - 4 - WORK TOP
  - 5 - CONDEMNED MEAT
- R/S - ROLLING SHUTTER  
 D - DOOR  
 W - WINDOW  
 O - COUNTER (OPENING)

GROUND FLOOR PLAN

## CATTLE / BUFFALO - SLAUGHTER PROCEDURE

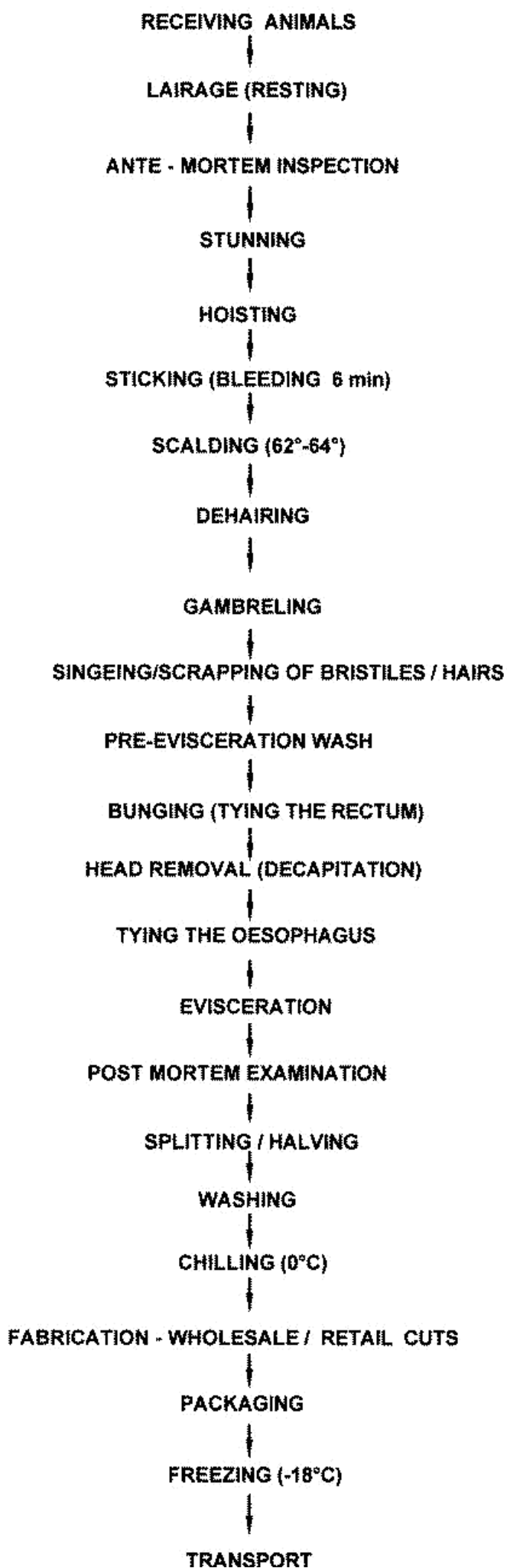




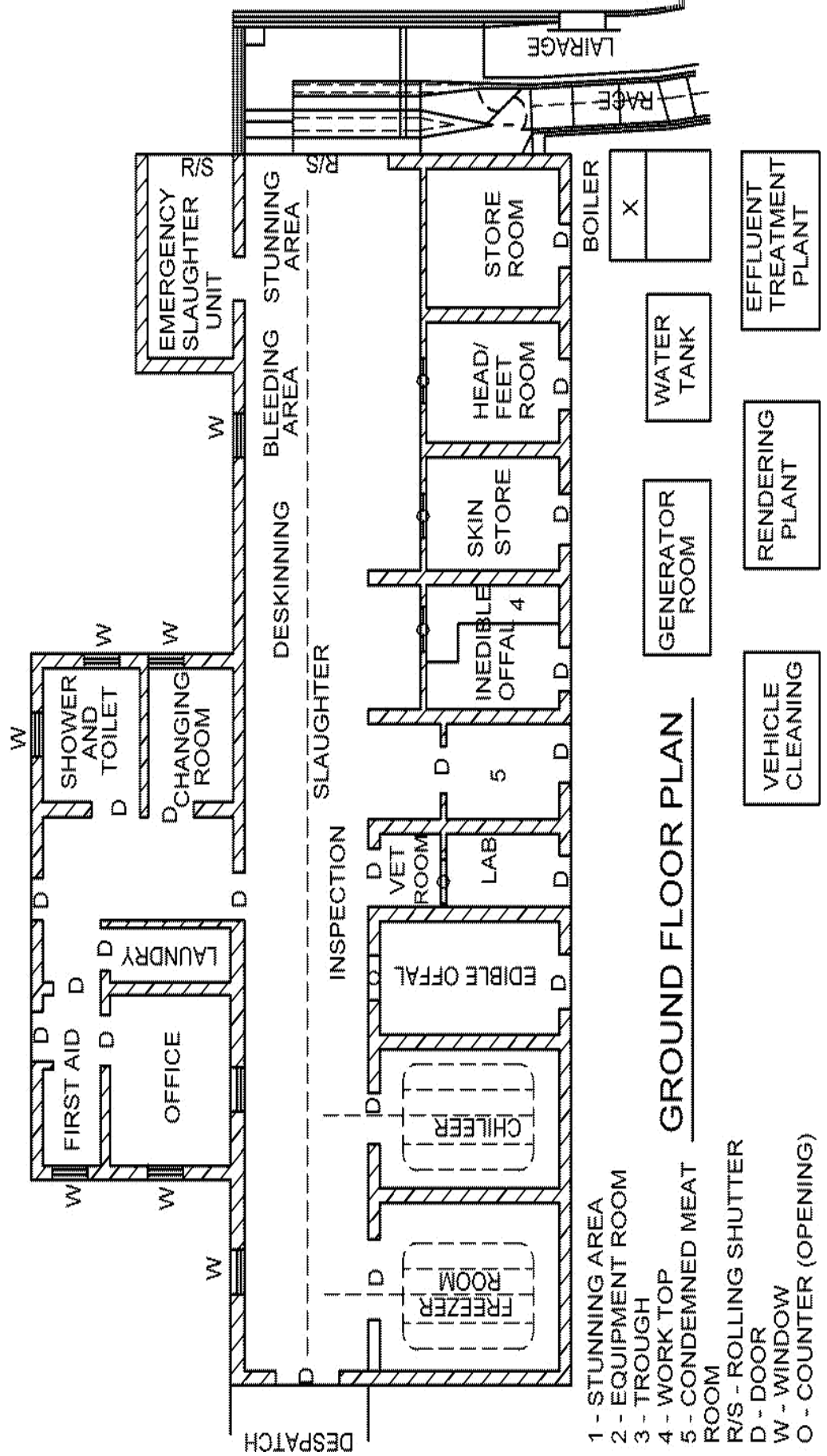
**GROUND FLOOR PLAN**

**REFERENCES**

- |                   |                         |
|-------------------|-------------------------|
| 1 - SCALDING TANK | 7 - HOT WATER HOSE      |
| 2 - DEHAIRING     | R / S - ROLLING SHUTTER |
| 3 - SINGEING      | D - DOOR                |
| 4 - DEHEADING     | W - WINDOW              |
| 5 - SPLIT & WASH  | O - COUNTER (OPENING)   |
| 6 - OFFAL TROLEY  |                         |

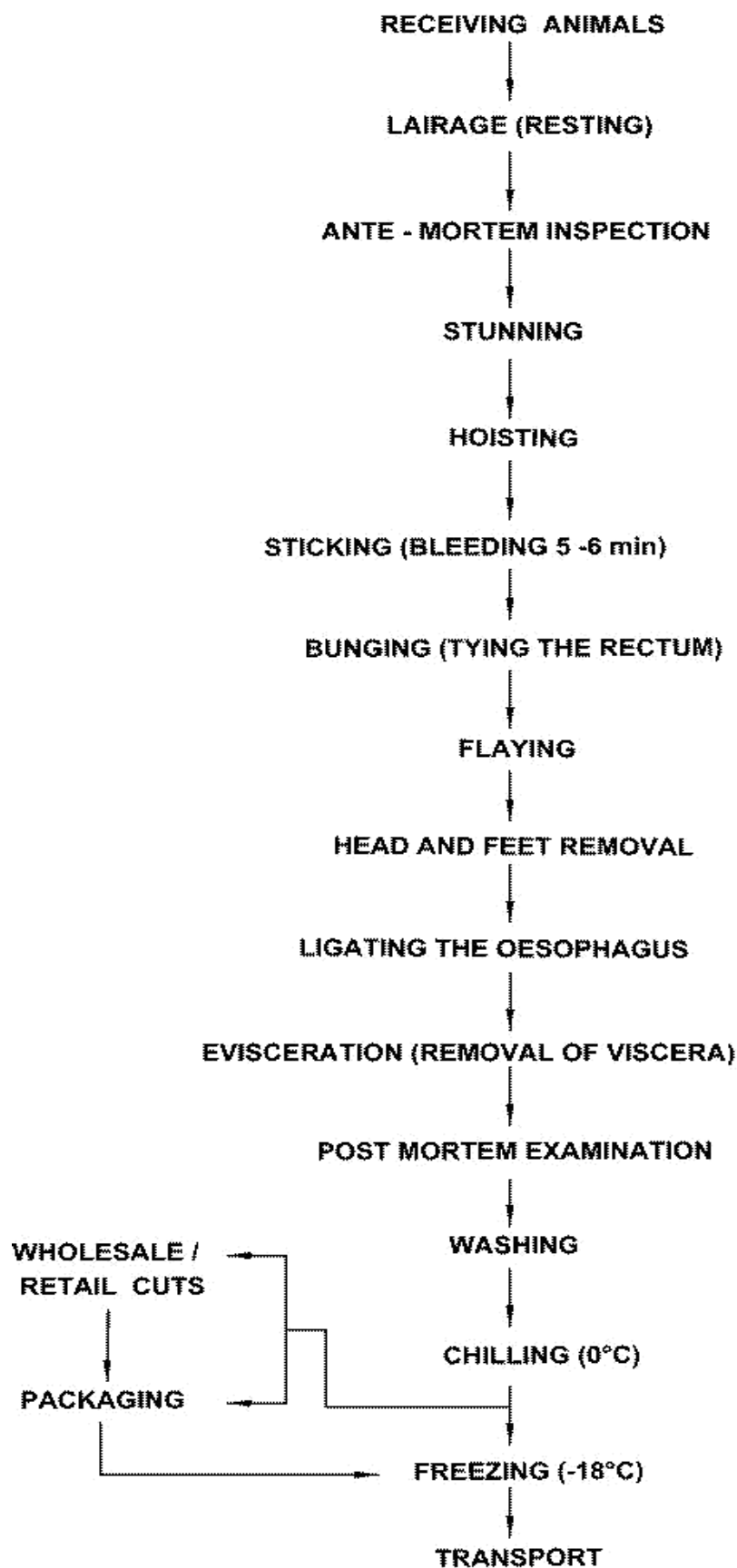
**PIG-SLAUGHTER PROCEDURE**

SHEEP / GOAT SLAUGHTER HOUSE DESIGN



GROUND FLOOR PLAN

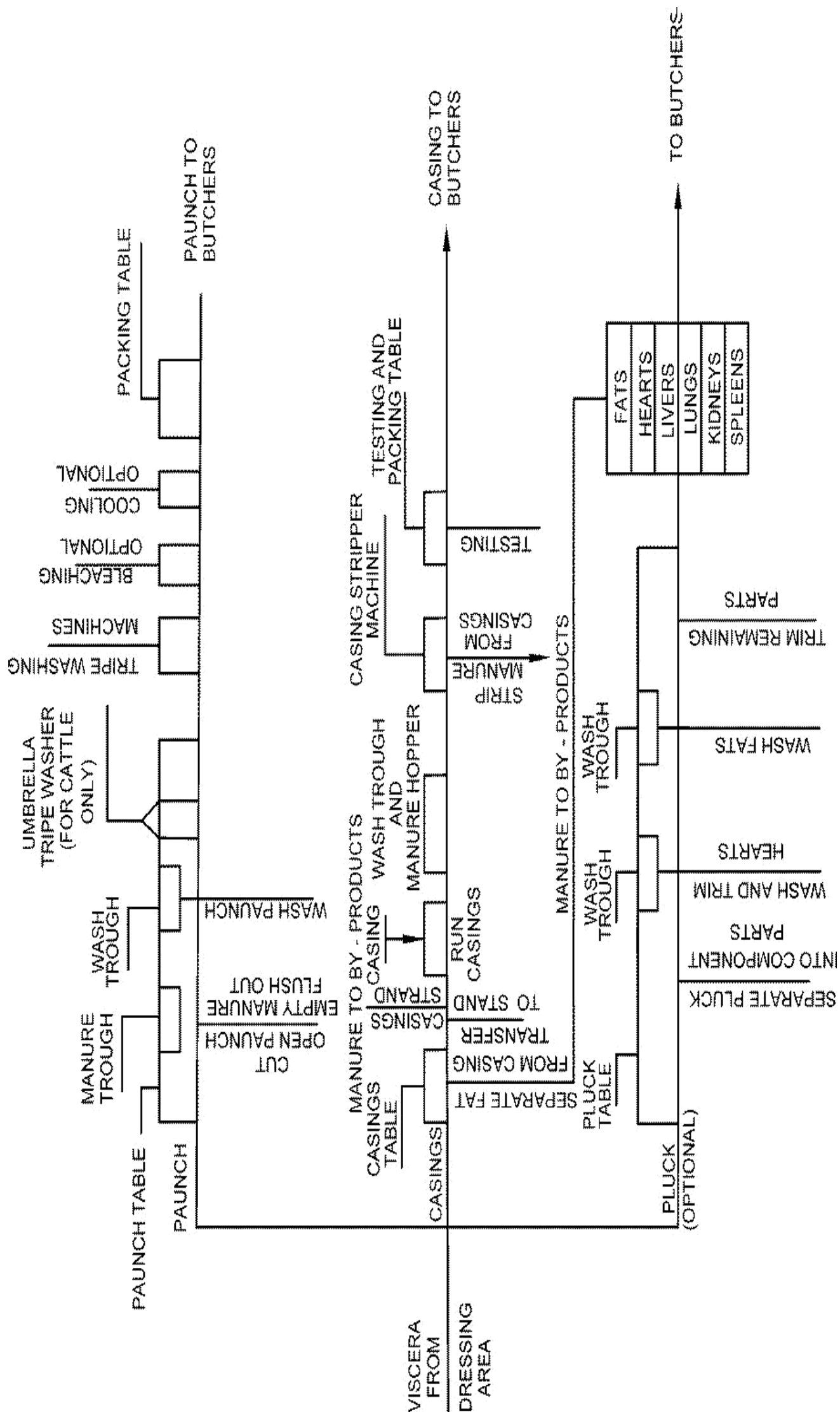
## SHEEP/GOAT - SLAUGHTER PROCEDURE

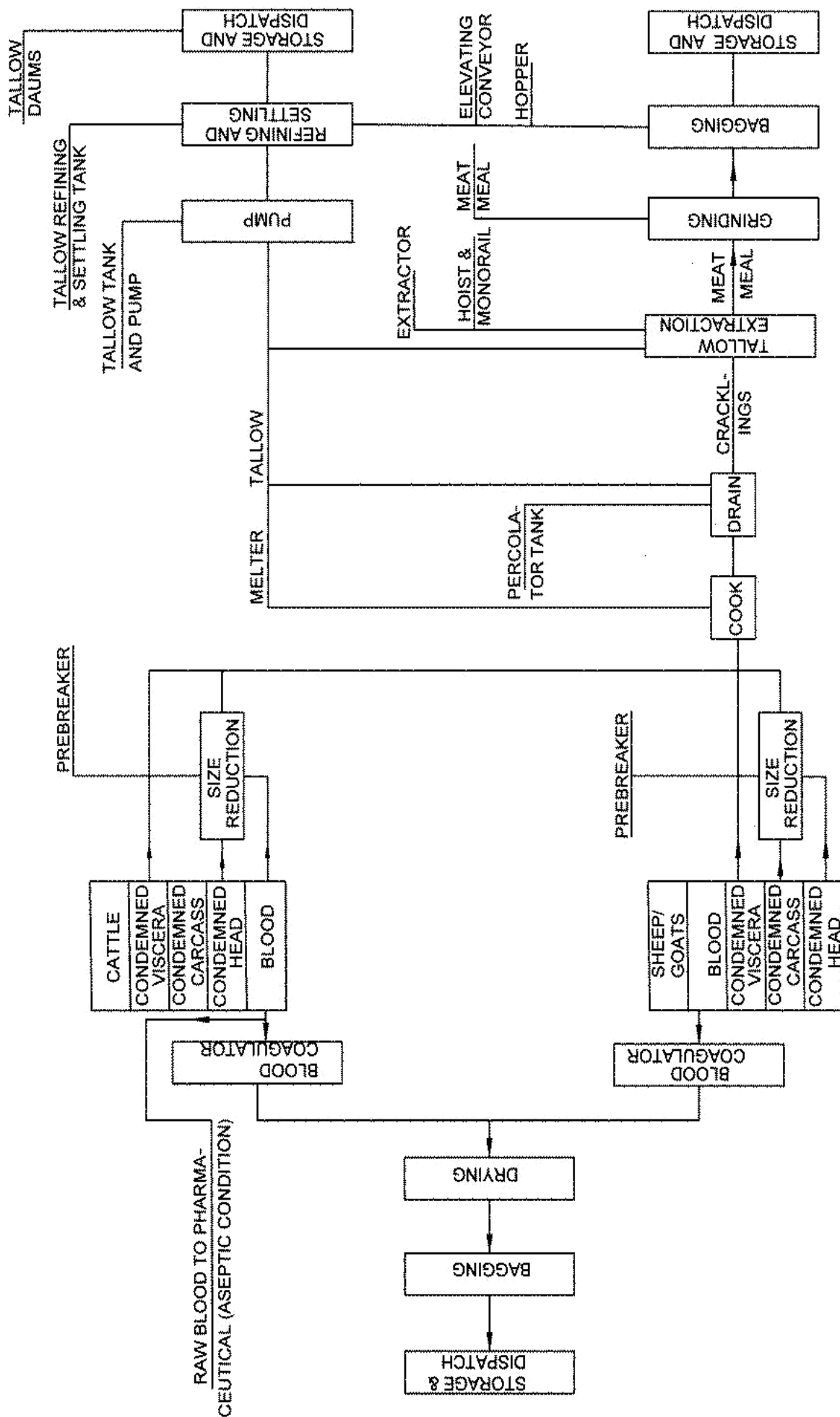


NOTE — In Halal/Jhatka method of slaughter, the facilities have to be provided for sticking the animals on the floor and hoist to over head rails.

FIG. 6 FLOW DIAGRAM FOR GOAT AND SHEEP ABATTOIR







**PROCESS FLOW DIAGRAM**

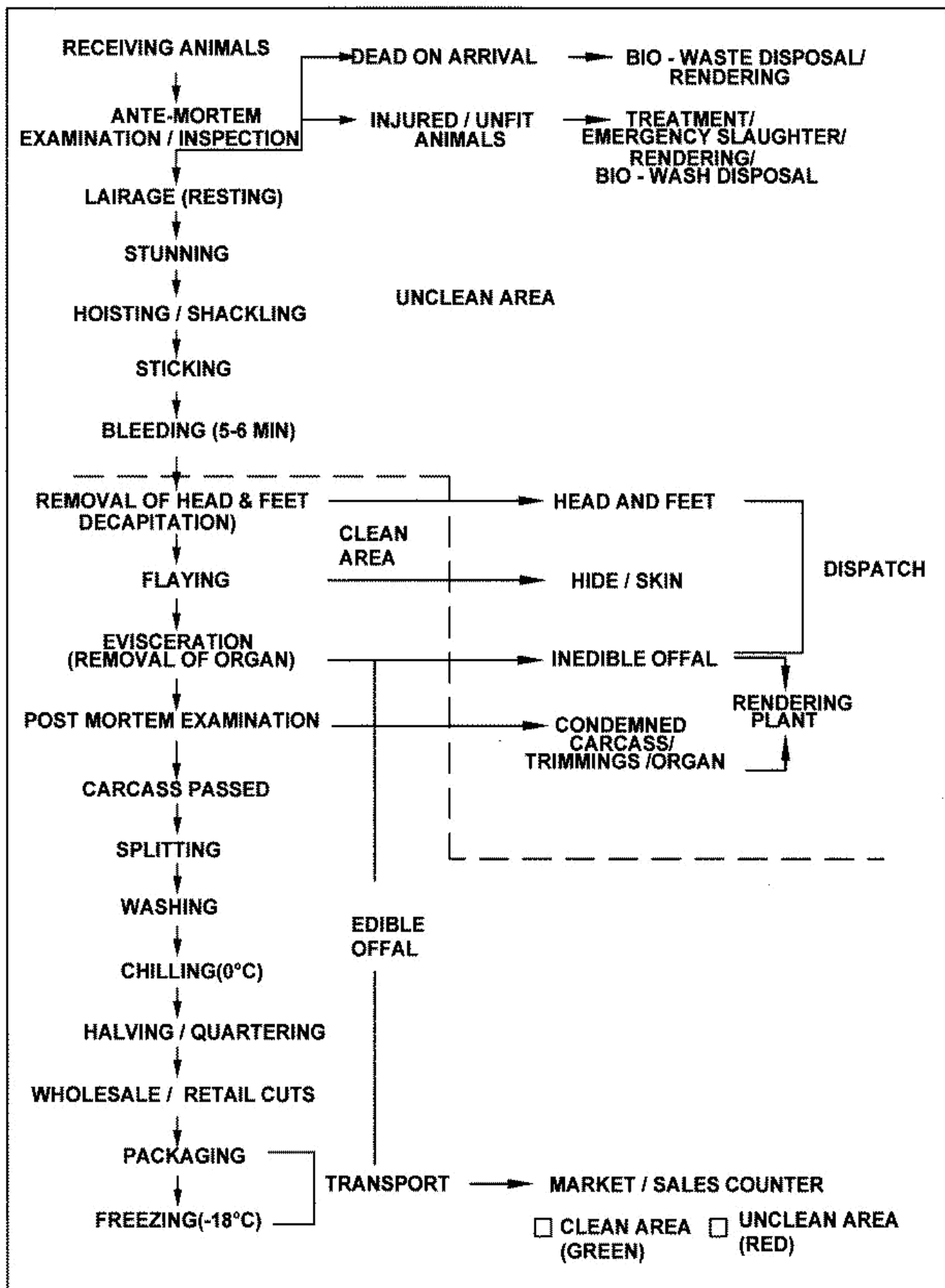


FIG. 9 GENERAL PROCESS FLOW DIAGRAM

IS 4393 : 2016

### 6.1.1 Reception Area or Resting Grounds

The abattoir shall have reception area of adequate size or resting grounds where the livestock are subjected to veterinary inspection before they are passed on to lairage for resting for 24 h. This shall have the following facilities.

#### 6.1.1.1 Facilities for unloading ramp

Unless all animals are arriving on hoof, proper ramps for direct unloading of animals from trucks or railway wagons should be provided. Ramps should be positioned to be even with the vehicle; width should be suitable enough for animals. Ramps should have side protection and non-slip floors and aligned so that there are no gaps where an animal might become trapped and injured. Ideally, animals should not have to walk up or down ramps with slope not greater than 30° to the horizontal (1 in 2.75, or 4 in 11). It is better to use hydraulic loading platforms or hydraulically operated lifting decks on vehicles. The ramps should directly lead to ante-mortem area with office room for veterinary inspector. People handling animals, should follow good animal welfare measures in order to avoid stress, injury or suffering to the animals and protect human safety.

24. The reception area or resting grounds shall have facility for watering and examining animals before sending to holding pens.

25. Separate isolation pens shall be provided with watering and feeding arrangements for: (a) sick animals or animals suspected to be suffering from contagious and infectious diseases, and (b) injured or fractious animals, in order to segregate them from the remaining animals.

26. Adequate holding area shall be provided according to the class of animals to be slaughtered. The holding area shall have water and feeding facilities. The resting grounds should have overhead protective shelters.

### 6.1.2 Lairage

6.1.2.1 Animals should be kept in the lairage without overcrowding or injury or being exposed to climatic stress. The lairage shall be adequate in size for the number of animals to be kept. Space sufficient to house three days supply of cattle and/or two days supply of sheep or pigs is considered necessary. Space provided to animals should be such that the

6.1.2.2 Floors shall have mild slopes to prevent accumulation of water and prevent water logging. Slurry and manure should be frequently removed from the shelter facilities.

6.1.2.3 Lairage should be maintained dry, clean and free from rodents and insects. The lairage shall have adequate facilities for cleaning and/or

drying of animals; adequate supply of clean water for drinking and washing and facilities for feeding whenever necessary; and ante-mortem inspection.

6.1.2.4 Where separate lairage or sections are to be provided for livestock meant for Jhatka and Halal, complete visual separation shall be effected and entrances shall be as far apart as possible.

### 6.1.3 Slaughter Halls

Separate provisions, wherever required, shall be made in an abattoir for slaughtering, dressing and processing of:

- a) sheep and goats (Halal);
- b) sheep and goats (Jhatka);
- c) pigs;
- d) cattle (Halal); and
- e) cattle (Jhatka).

The slaughter halls and ancillary accommodation thus provided shall be separated, keeping in view the economic and local requirements, by solid walls depending upon the site. Exits to such sections shall be kept as far apart as possible.

6.1.3.1 Separate space shall be provided for stunning (wherever applicable), bleeding and dressing of the carcasses. The curbing should be not less than 150 mm high and 100 mm wide with the top sloped not less than 45°.

#### 6.1.3.2 Races

Single-file race should not be too wide, crowded and should not appear as a dead end. Single-file races must m<sup>2</sup> per animal for heavy pigs, calves, sheep and goat

6.1.2.5 The animals shall be kept separately depending upon their type and class. There shall be no mixing of animals of different species. There shall be separate pens for male and female, horned and polled, animals in heat (oestrous) and pregnant animals.

6.1.2.6 The lairage shall be roofed and so constructed as to protect the animals from extreme climatic conditions like heat, cold and rain to avoid stress. Handling facilities should be designed to ensure ease of handling and to prevent injury to animals. There should be no physical features in the lairage which cause recurring injuries to animals.

animal can freely move and express its normal behavior patterns as far as possible. The space provided in the pens shall be not less than 2.3 m<sup>2</sup> - 2.8 m<sup>2</sup> per animal for cattle which are kept without tying and not less than 3.3 m<sup>2</sup> per animal for the tied one. The space provided in the pens shall be not less 0.6 m<sup>2</sup> per animal for medium sized pigs and not less than 0.7

be narrow enough to prevent animals from turning around or becoming wedged beside each other. Cattle race should be wide (76 cm) and races for pigs, goats and sheep should have only 3 cm of clearance on each side of the largest animal. Curved race is more efficient because animal entering the race cannot see people or other activity up ahead, provided laid out correctly. Curved races must be laid out so that animals standing in the crowding-pen can see a minimum of three body lengths up the race before it turns.

#### 6.1.3.3 Stunning area (wherever applicable)

The area in front of the stunning pen should be at least 3m in width to the opposing wall or bleeding trough and be fitted with upright bars 5cm in diameter and 1.2 m high, spaced in 40 cm intervals for safety purposes. Animals should enter the device easily. If they balk or back up, check for distractions. Animal's vision should be blocked so that they do not see people or suddenly moving objects. Metal shields should be installed around the animal's head on box type restrainers. Animals tend to panic when they lose their footing. Non-slip flooring should be provided in box-type restrainers and a non-slip cleated entrance ramp should be provided on conveyor restrainers. Parts of restraint device that press against the animal's body should move with slow steady motion. Animals should never be left in a stunning box or restraint device but should be stunned slaughtered immediately after entry with rituals or otherwise, as the case may be.

6.1.3.4 Knocking section may be so planned as to suit the animal and particularly the ritual slaughter, if any. It should have facility to slaughter crippled animals brought from ante-mortem inspection area to slaughter department and also the floor and hand washing facilities. An animal shall not be slaughtered in sight of other animals. The knocking section and dry landing area associated with it shall be so built that escape from this section can be easily carried out by an operator without allowing the animal to pass the escape barrier. This may normally be accomplished by an arrangement such as placing vertical pipes 150 mm in diameter, 1.5 m high on prepared vertical pipe inserts, about 120 mm high or the internal diameter of the pipe used for the vertical placed not less than 500 mm apart.

6.1.3.5 A curbed-in bleeding area of adequate size should be provided. The bleeding trough should be at least 1.5 m wide for cattle, possessing a good gradient, side walls of the same height, and two drains, one for blood and

one for water for the purpose of cleaning. The length of the bleeding line will depend on the throughput and the system of conveying carcasses, but should be generous, since the majority of blood flow requires 6-8 min. It shall be so located that the blood shall not be splashed on other animals being

IS 4393 : 2016

slaughtered or on the carcass being skinned. Blood drain and collection should be immediate and proper. A floor wash point should be provided for intermittent cleaning. Also a hand-wash basin and knife sterilizer should be provided for the sticker to sterilize knife and wash his hands periodically.

#### 6.1.3.6 Dressing area

Dressing of carcasses should not be done on floor. Adequate means and tools for dehiding or skinning of the animals should be provided. Means for immediate disposal of hides or skins should be provided. Hides or skins should be immediately transported either in a closed wheel barrow or by a chute provided with self-closing door. In no case the hides or skins should be spread on slaughter floor for inspection. Floor wash point and adequate number of hand wash basins with sterilizer should be provided in this section. Means for immediate disposal of legs, horns, hooves, etc, should be provided through spring load floor chutes or side wall doors or closed wheel barrows. In case wheel barrows or trucks are used, care should be taken that at no point wheel barrow or truck has to ply under the dressing rails and a clear passage is provided for movement of the trucks.

#### 6.1.3.7 Viscera inspection facilities

Adequate space and suitable and properly located facilities shall be provided for inspection of the viscera of the various types of animals slaughtered. This department shall have adequate facilities for hand washing, tool sterilization and floor washing and contrivances for immediate separation and disposal of condemned material. Adequate arrangements may be made for identification, inspection and correlation of carcass, viscera and head.

#### 6.1.3.8 Carcass washing facility

A curbed and separately drained area or an area of sufficient size sloped 33 mm/m to a floor drain, where approved carcasses may be washed with a jet of water, should be provided. Carcass should be washed with hot water at > 74°C for at least 10 s. The treatment of carcass with one or more of the following is also permitted for cleaning purpose:

- a) Chlorine;
- b) Organic acids for example acetic acid, lactic acid, citric acid, fumaric acid;

- c) Hydrogen peroxide;
- d) Antimicrobials; and
- e) Phosphates.
- f) Ancillary Accommodation

6.1.4.1 A separate room and hanging space shall be provided for emptying and cleaning of stomachs and

IS 4393 : 2016

intestines. This room shall have a separate exit. Pluck and viscera cleaning and separating departments should be divided into edible and inedible sections for further processing. Those sections should preferably be separated from the slaughter floor, except for one or two connecting doorways provided with solid, self-closing doors, completely covering the opening.

g) Condemned carcasses should be disposed off at rendering plant. If rendering facilities are not provided, the condemned material should be denatured and held in watertight metal containers in suitable inedible product room pending daily removal by contractors for disposal through suitable prescribed waste disposal methods.

h) Suitable and sufficient accommodation shall be provided for the retention of all meat condemned as unfit for human consumption and shall be locked up separately.

i) If a separate block for hide curing or skin drying is not provided in the abattoir, the hides or skins may be stored in a separate room and removed daily.

j) Suitable and sufficient facilities shall be provided for the isolation of meat requiring further examination by the veterinary inspector in a suitable laboratory within the premises of the abattoir.

k) Veterinary laboratory

A room equipped for carrying out a trichinoscopic test is compulsory in abattoirs handling pigs. In larger premises, a well-equipped laboratory is essential, not only for the preliminary diagnosis of animal disease but also to maintain the overall hygienic standards.

6.1.4.7 Veterinary office

An adequately equipped lockable room for the exclusive use of the veterinarian/meat inspectors. The rooms should be provided with hand-washing and shower facilities, and lockers for clothing (clean and dirty) and meat inspection equipment. A convenient means of cleaning footwear before entry into changing rooms is an advantage.

6.1.4.8 Labour welfare facilities

Well located toilet rooms (1 per 15 employees) should be provided in the abattoir building sufficiently away from slaughter walls. A separate hall with lockers and shower facilities (1 per 15 employees) should be provided. Adequate drinking water and washing facilities (cleaning agents, soap and chemicals) should be provided at convenient locations. Adequate facilities for cloak room, canteen with dining hall and first-aid should also be provided. A store room for overalls, equipment and clean manual implements, normally required for the work, must be provided. Hand basins or wash trough with taps controlled preferably with the knee or elbow must be provided at the exit of these facilities.

6.1.5 Isolation Block

It is also called as emergency slaughterhouse or miniature abattoir. In large abattoirs isolation block is necessary for detention of suspected animals for its observation and treatment and if necessary to do emergency slaughter in case of fractured, injured animals. The isolation block will have a small lairage to keep 4 cattle with a slaughter hall, cooling hall, bacteriological laboratory, incinerator and sterilization rooms. This block must be located at a distance from the main buildings and workers should not move from here to the main buildings. It should be situated near to the suspect meat detention room and should be in direct communication with the by-products department.

6.1.6 Chiller and Freezer Rooms

Chiller room shall have temperature of 0°C to 4°C and freezer room shall have a temperature of  $-18 \pm 2^\circ\text{C}$ . Hanging halls, if air-conditioned should have temperature not higher than 10°C. Two retaining compartments constructed of rust

-resistant wire gauge or expanded metal portion extending from about 75 mm above ground to ceiling should be provided, one for holding retained carcasses and the other for holding the carcasses affected with *Cysticercus bovis*.

7 RAILS FOR CARCASSES

7.1 Any of the following systems for line dressing can be taken into operation, the type depending mainly on the level of throughput, equipment design and species.

7.1.1 Gravity Rail System

Recommended for 10-40 animals per hour, carcass is suspended from a spreader and single wheel trolley or runner are gravitated to each station and stopped by a manually operated stop on the overhead rail.

### 7.1.2 Intermittent Powered System

Recommended for 10-75 animals per hour, it involves the mechanical moving of the carcasses suspended on a spreader and trolley along a level rail at intervals by means of a variable timing device which can be pre set to suit the slaughter rate.

### 7.1.3 Continuous Powered System

Recommended for 40-120 animals per hour, here dressing line is in continuous motion with more sophisticated equipment light mechanical hide puller, moving top inspection table and the carcass can be revolved a full 360° while on the rail allowing the operator to work all sides from one position.

g) Rails (see IS 6628) with hooks of suitable rust-proof metal or mild steel shall be provided for hanging the carcasses and similar provision for plucks shall be made, permitting free circulation of air. The hooks shall be suitably cleaned and sterilized regularly.

h) The height and length of rails, provided for bleeding and dressing, shall be in accordance with Table 1.

Table 1 Requirements of Height and Length of Bleeding and Dressing Rails  
(Clause 7.3)

Sl No.	Carcass	Height cm	Length per Carcass cm
(1)	(2)	(3)	(4)
i)	Bleeding rail for sheep, goats and pigs	300 <sup>1)</sup>	30
ii)	Bleeding rail for cattle/buffalo	450 to 500	50
iii)	Dressing rail for sheep, goats and pigs	230 to 340 <sup>2)</sup>	—
iv)	Dressing rail for cattle/buffalo	340	—
h) Falling at the rate of 1 cm/100 cm (for gravity rail). wood, plaster board, and porous acoustic-type boards,			

Remaining dressing rail height shall be 320 cm. which are absorbent and difficult to keep clean should

7.4 The space required per carcass and the distance between the rails in hanging or chill room, shall be in accordance with Table 2.

Table 2 Requirements of Space per Carcass and Distance Between Rails in Hanging or Chill Room

(Clause 7.4)

Sl No.	Carcass	Space per Carcass cm	Distance Between Rails cm	Heights of Rails cm
--------	---------	----------------------	---------------------------	---------------------

(1)	(2)	(3)	(4)	(5)
i)	Sheep and goats <sup>1)</sup>	30	90 to 100	320
ii) Pigs <sup>1)</sup> :				
	a) Weight of pig 70 kg	50	90 to 100	320

Walkways for staff between the blocks and the abattoir must preferably be roofed. Specific areas such as collection points for manure from holding pens and paunch contents must also be paved and drained.

### 8.2 Ante-mortem and Pen Area Including Lairage

The area should be paved with impervious material such as concrete non-slippery herring-bone type suitable to stand wear and tear by hooves, or brick, and pitched to suitable drainage facilities. Curbs of impervious material 150 to 300 mm high should be provided around the borders of livestock pen area, except at the entrances. The pen should preferably be covered. The squares in the floors should be 20 cm (8 inch) by 20 cm (8 inch). There should be V shaped grooves in the flooring with minimum depth of 2.5 cm and width of 2.5 cm. Materials used shall be impervious, easily cleansable, and resistant to wear and corrosion. Materials such as

b) Weight of pig below 70 kg	30	90 to 100	320
iii) Cattle/buffalo	80 to 100	90 to 100	320

<sup>1)</sup> for sheep, goats and pigs double stacking shall be done.

## 8 CIVIL CONSTRUCTION

### 8.1 Abattoir Premises

Should have concrete brick wall with barbed wired fencing upto 10 feet, with security in order to control the unauthorized entry of vehicles, persons and animals. Surfaces on the site must be paved or grassed. Smaller abattoirs must have a surface that is dust and mud free, readily cleanable and well drained. Larger houses should be planted with trees in order to make premises environment friendly. Provision of sufficient storm water drainage should be there not be used in edible departments.

#### 8.3.1 Floors

The floors should be non-absorbent and non-slippery with rough finish, and shall have suitable gradient for drainage.

#### 8.3.2 Coves

Coves with radii sufficient to promote sanitation should be installed at the juncture of floors and walls in all rooms and not less than 100 mm.

#### 8.3.3 Interior Walls

Interior walls should be smooth and flat and constructed of impervious materials such as glazed brick, glazed tile, smooth surfaced

Portland cement plaster, or other non-toxic, non-absorbent material applied to a suitable base. Walls should be provided with suitable sanitary type bumpers to prevent damage by hand trucks, carcass shanks, and the like. It is recommended that the interior walls should have washable surface up to the height of 2 m from the floor so that the splashes may be washed and disinfected. The smooth walls will be painted in light colours to a height of 3 m.

#### 8.3.4 Ceilings

Ceilings should be of good height (5 m or more is desirable in work rooms). So far as structural conditions permit, ceilings shall be smooth and flat. Ceilings shall be constructed of Portland cement plaster, large size cement asbestos boards with joints sealed with a flexible ceiling compound, or other acceptable

impervious material and finished so as to minimize condensation, mould development, flaking and accumulation of dirt. The walls (above glazed type portion) and ceiling may be painted with water-resistant paint to maintain them clean.

#### 8.3.5 Window Ledges

Window ledges should slope at 45° to promote sanitation. To avoid damage to glass in windows from impact of hand trucks and similar equipment, the window sills should be 1 200 mm above the floor level. Proper ventilation through mechanical venting or through working vents should be provided in the roof structure.

#### 8.3.6 Doorways and Doors

Doorways through which product is transferred on rails or in hand trucks shall be at least 1 500 mm wide, except for the doors used in connection with rails, which should be approximately 3 000 mm high can be at least 1 500 mm wide. Doors shall either be of rust-resistant metal construction throughout, or if made with rust-resistant metal having tight soft wood, they shall be clad on both sides with soldered or welded seams. Door jambs shall be clad with rust-resistant metal securely affixed so as to provide no crevices for dirt or vermin and the juncture at which the door joins the walls shall be effectively sealed with a flexible sealing compound.

#### 8.3.7 Screens and Insect Control

All windows, doorways, and other openings that may admit flies should be equipped with effective insect and rodent screens. 'Fly chaser' fans and ducts or air curtains shall be provided over doorways in outside wall of food handling areas that are used for dispatch or receiving.

#### 8.3.8 Rodent-Proofing

Except in the case of solid masonry walls

constructed of glazed tile, glazed brick, and the like, expanded metal or wire mesh, not exceeding 12.5 mm mesh, shall be embedded in walls and floors at their junction. This mesh should extend vertically and horizontally to a sufficient distance to exclude the entrance of rats and other rodents.

Stairs in edible product handling departments shall be of impervious construction with solid treads and closed risers and shall have side curbs of similar material 150 mm high measured at the front edge of the treads. Floor openings for chutes, etc, and for stairways except at entrances should have curbs of impervious materials, such as concrete or metal, at least 300 mm high, to prevent floor drainage from entering such chutes

### 8.4 Vehicular Areas for Trucks

Concrete paved areas, properly drained and extending at least 6 m from building, loading docks or livestock platforms shall be provided at places where vehicles are loaded or unloaded. Pressure washing jets and disinfection facilities for trucks carrying animals should be provided. Vehicles which offload live animals, loads intestines, heads and feet as well as vehicles removing paunch contents, condemned material and refuse are restricted to the dirty area and may not enter areas where meat vehicles and staff who handle meat are to be found. Separate routes for stock and meat vehicles should be provided. Approach roads should be at least 6 m wide. Drainage and cleaning facilities should be available in vehicle parking areas where animals are offloaded or meat is loaded.

### 8.5 Drainage

i) All parts of floors where wet operations are conducted should be well drained. Drainage must be from clean to dirty areas. As a general rule, one drainage inlet should be provided for each 37 m<sup>2</sup> of floor space. A slope of about 20mm/m to drainage inlets should be provided for usual conditions. It is important that the floors slope uniformly to drains with no low spots which collect liquid. Floor drains should not be provided in freezer rooms or dry storage areas. When floor drains are installed in rooms where the water seal in traps is likely to evaporate without replenishment, they should be provided with suitable removable metal screw plugs. Special arrangements have to be made for dealing with stomach and intestinal contents, the drains for bovine material to be at least 20 cm in diameter and for the smaller species 15 cm.

j) Traps and Vents on Drainage Lines



Each floor drain, including blood drains, should be equipped with a deep seal trap (I-, U-, or S-shape). Drainage lines shall be properly vented to the outside air and be equipped with effective rodent screens.

#### 8.5.3 Sanitary Drainage Lines

Drainage lines from toilet pans and urinals should not be connected with other drainage lines within the plant and may not discharge into a grease catch basin. Such lines shall be installed so that if leakage develops, it shall not affect the product or the equipment.

8.5.4 All floor drains should be so constructed and the floor so made that these can be easily cleaned and then shall be a minimum area to be drained per outlet. It is recommended that 'U' drains set with satisfactory covers should be used and made totally fly-proof and rodent

#### 8.5.5 Special Drainage Requirements

In certain departments, special floor drainage is required. For example, floor drainage valleys are essential under the dressing rails for hogs, calves, and sheep. Such valleys shall be about 600 mm wide and integral with the floor. The valleys shall slope at least 10 mm/m to drains with the valleys. In so-called on the rail cattle slaughtering departments, floor valleys under the dressing rails shall be provided unless the floor drainage is carefully localized within drainage inlets placed advantageously beneath the dressing rails.

### 9 LIGHTING AND VENTILATION

- d) Un-refrigerated work rooms should be provided with adequate direct natural light and ventilation or ample artificial light and ventilation by mechanical means. Uncoloured glass having a high transmissibility of light may be used in skylights and windows. The glass area should be approximately one-fourth the floor area of a workroom. This ratio should be increased where there are obstructions, such as adjacent buildings, overhead catwalks, and hoists, which interfere with the admittance of direct natural light. Well distributed artificial lighting of good quality should be provided at all places where adequate natural light is not available or is insufficient.
- e) Every abattoir shall be so constructed that meat inspection may be carried out in daylight. Sockets for the use of inspection lamps shall be provided at

convenient places.

- f) Every abattoir shall be provided with well-distributed artificial light of an overall intensity of not less than 220 lux throughout the slaughter hall and workrooms and at places where meat inspection is carried out, the overall intensity of artificial light shall be not less than 540 lux. The overall intensity of artificial light shall be not less than 110 lux in other areas.
- g) Every abattoir shall be provided with suitable and sufficient means of ventilation to the outside air. The construction of the slaughter hall should be so arranged that the dressed carcasses are not exposed to direct sunlight.

### 10 SUPPLY OF WATER

10.1 A sufficient and constant supply of potable water (see IS 10500) shall be available at adequate pressure throughout the premises.

- c) The pressure for the general purpose of floor washing, etc, may preferably be 30 psi to 50 psi for thorough floor cleaning.

For thorough and efficient washing of carcasses, a higher pressure of 150 psi to 250 psi is recommended

40 Floor washing point may be provided preferably for minimum 37 m<sup>2</sup> on slaughter floor and working departments.

41 The water distribution plant may be located at the load centre.

10.2 A constant supply of clean hot water shall be available in the slaughter hall and workrooms during working hours.

10.2.1 Hot water is required at not less than 82°C for frequent sterilizing of equipment.

- 5. Every sanitary convenience in an abattoir shall be supplied with water by means of suitable flushing appliance.
- 6. Suitable facilities for washing of hands (including adequate supplies of hot and cold running water, nail brushes and soap or other detergent) shall be provided for persons working in an abattoir. Where non-potable water is used for fire control, steam production and cooling refrigeration equipment, etc, it shall be carried in completely separate lines preferably identified by colour and with no cross-connection or back siphonage with lines carrying

potable water.

## 7. Water Requirement

- c) Water requirement for an abattoir for pigs is approximately 454 litre/animal/day.
- d) Water requirement for an abattoir for cattle is approximately 272 litre/animal/day.
- e) Water requirement for an abattoir for sheep and goat is approximately 45 litre/animal/day plus 25 percent at a reasonable pressure of 15 psi.

10.6 Water should be tested once in a month for bacteriological requirements and once in six months for chemical requirements (see IS 10500). The abattoir owner shall keep meticulous records of the results of bacteriological and chemical tests.

## 11 EQUIPMENT CONSTRUCTION

### 11.1 Basic Equipment Required for Slaughter and Dressing

11.1.1 The basic equipment that is needed for the slaughtering operation consists of (The list is for guidance only, type and quantum of equipment will depend on the slaughtering procedures employed):

- a. Stunning gun, electrical head tongs or simple stunning equipment for direct blow,
- b. Knives - sticking (16cm sharpened on both sides), skinning (16cm curved),
- c. A sharpening steel, Sharpening stone,
- 10. Scabbard and belt for holding knives,
- 11. Meat saw (hand or electric) and cleaver,
- 12. Shackle or chain hoist strong enough to hold the weight of the animal to be slaughtered,
- 13. Skinning rack (dressing cradle),
- j) Overhead rail system/strong beam, tripod or track 2.4 - 3.4 m from the floor,
- k) Spreader-gambrel or metal pipe,
- m) Buckets,
- n) Working platforms,
- p) Wire mesh aprons, and
- d. Protective clothing for meat handlers/workers

11.1.2 The following additional equipment are required when pigs are scalded and scrapped rather than skinned:

- a) Scalding barrel or tank;
- b) Pot, barrel or system for boiling water;
- c) Bell scrapers/Dehairing machine;
- d) Solid scraping table or platform;
- e) Thermometer;
- f) Hooks/Gambrels; and
- g) Torch or flame gun.

11.1.3 Other/miscellaneous useful equipments include,

- a) mechanical/electrical stunning equipment;
- b) bleeding hooks (for vertical bleeding);
- c) blood collecting trough; and
- d) wash trough (for tripe).

11.1.4 The following items are necessary for sanitation of hands and tools:

- a) Hand wash-basin, and
- b) Implement sterilizers

11.2 Excepting such equipment as utility boards, other equipment shall be constructed either of rust-resisting metal such as stainless steel or galvanized metal with smoothness of high quality commercial hot dip. The galvanized metal is generally not desirable where high resistance to corrosive action of food products and cleaning compounds is required. Plastic may be used. In that case plastic shall be abrasion- and heat-resistant, shatter-proof, non-toxic and should not contain, any constituents that may affect the meat or meat products during contact.

### 11.3 Accessibility for Cleaning and Maintenance

11.3.1 All parts of the product zone shall be readily accessible to sight and reach for cleaning and inspection.

11.3.2 Where necessary for proper cleaning and inspection, equipment shall be easily demountable. To facilitate this dismantling, quick opening devices that require no tools or, such simple tools as a mallet and an open-end wrench shall be provided. Bayonet joints, butterfly clamps, spring bolts, and other similar devices are desirable for connecting or closing parts of equipment. Where parts should be retained by nuts and bolts, the design shall provide for fixed studs with wing nuts, rather than bolts to a tapped hole.

11.3.3 All bearings shall be located outside the product zone and if adjacent thereto, shall be constructed with a readily removable seal at the entrance of the shaft, into the product zone.

11.3.4 Interior corners of equipment shall be provided with radii (minimum 6 mm), except where greater radii are required to facilitate drainage and cleaning.

11.3.5 All welding within the product zone shall be continuous, smooth, even and relatively flush with the adjacent surfaces.

11.3.6 All parts of the product zone shall be free of recesses, open seams and gaps, crevices, protruding ledges, inside threads, inside shoulders, inside bolts or rivets and deal ends.

11.3.7 Where necessary for sanitary maintenance, equipment shall be constructed and installed so as to be completely self-draining.

11.3.8 Care shall be taken to prevent contaminating product by lubricants used in overhead motors, gears, and similar devices. If drip pans are necessary, they should be easily accessible for inspection and removable for cleaning.

11.3.9 The safety or gear guards shall be readily removable for cleaning and inspection.

11.3.10 All external surfaces that do not contact with food products shall be free of pen seams, gaps, crevices and inaccessible recesses.

11.3.11 For elimination of fatigue and comfortable working for labourers the working table should be at waist height of the worker to work in standing position. If the table is at more height (that is 800 mm to 860 mm) it should have a platform incorporated for the balance height above 860 mm.

11.3.12 Working platform for on-the-rail operations should be of such height that the slaughter man has neither to stoop too low or stretch himself to his operation zone, and he should be able to reach operation zone in his natural standing position.

#### 11.4 Non-acceptable Materials

The following materials shall not be used in an abattoir:

Copper and its alloys in equipment used for edible products;

- b) Cadmium in any form in equipment handling edible products;
- c) Equipment with painted surface in product zone;
- d) Enamel containers or equipment is not desirable; and
- e) Lead.

## 12 INSTALLATION

Following points should be strictly observed during installation of equipment from hygiene and sanitation point of view:

- a) All permanently mounted equipment shall either be installed sufficiently away from walls ( minimum 300 mm ) to provide access for cleaning and inspection, or should touch the walls.
- b) All permanently mounted equipment shall either be installed sufficiently above the floor ( minimum 300 mm) to provide access for cleaning and inspection or be completely sealed (watertight ) to the floor area.
- c) Wall-mounted cabinets and electrical

connections ( such as switch boxes, electrical control panels, and BX cables ) shall be installed at least 25 mm from equipment or walls or shall be completely sealed to the equipment or walls.

- d) All tables or other equipment having water on the working surface shall be provided with turned-up edges. The height of the turned-up edge depends on the volume of water used and the operations conducted. In no instance should the turn-up be less than 25 mm.

## 13 SANITATION AND CLEANING

### 13.1 Cleaning

13.1.1 However, it is important to implement procedures which are applicable to the processing area being cleaned taking into consideration the nature of contaminants, type of detergents and method of cleaning.

#### 13.1.2 Nature of Contaminants

Most of the contaminants in a abattoir are fat or protein, lubricants, vermin, bone chips, manure, bristles, hair, skin, tissue, spilled chemicals.

#### 13.1.3 Cleaning Techniques

Depending upon the requirement any of the following types of cleaning can be used:

- a) Manual cleaning,
- b) Mechanical cleaning,
- c) High pressure cleaning,
- d) Moist steam cleaning, and
- e) Foam cleaning.

### 13.2 Sanitation Measures

#### 13.2.1 Dry Clean

Removing all pieces of meat, fat and other product residues.

#### 13.2.2 Soaking

Small pieces/parts of equipment can be soaked in a tank of water and detergent. Large equipment, floor and walls can be foamed.

#### 13.2.3 Physical Cleaning

After soaking, equipment is cleaned manually, using a brush or mechanically using high pressure or steam cleaning. Manual scouring to remove protein crusts and adhesive layers.

#### 13.2.4 Rinsing

Thorough hose down with warm water to remove detergent residues, contamination.

#### 13.2.5 Drying

Excess water should be removed from horizontal surfaces by wiping with paper towels or scraping with scrubbers.

### 13.2.6 Sanitation

Sanitizing agents may be applied as spray or mist, immediately after post cleaning rinse until next day's production.

### 13.2.7 Pre-operation Hose Down

This serves to remove sanitizer residues and to rinse off contamination.

## 13.3 Detergents

13.3.1 Any detergent formulation may contain 2 to 15 components which may belong to the following categories:

- a) Alkalis — caustic soda, caustic potash, carbonate, silicate, phosphate.
- b) Acids — phosphoric, nitric, citric, glycolic, sulphamic, hydrochloric.
- c) Chelating agents — EDTA, NTA, gluconate, glucoheptonate, citrate.
- d) Solvents — isopropanal, propylene glycol, butyl diglycol, ethers.
- e) Surfactants — anionic (Ammonium lauryl sulphate), Cationic (quartz-quaternary Ammonium compounds) non-ionic, amphoteric
- f) Inhibitors — organic, (sodium benzoate). paved with impervious material, such as concrete, and Inorganic, (sodium nitrite, sodium Chromate). provided with suitable drainage facilities. Suitable
- g) Enzymes — protease, lipase, amylase.
- h) Oxidizing agents — hypochlorite, Isocyanurates, Dichlor, Stabilised Chlorine dioxide, hydrogen per oxide.
- j) Stabilizers — Cynuric acid.
- k) Viscosity modifiers.

13.4 Water to be used for cleaning and washing should be potable (see IS 10500). Water should be tested once in a month for bacteriological requirements and once in six months for chemical requirements (see IS 10500). The slaughter house/abattoir in charge must keep meticulous records of the results of bacteriological and chemical tests.

13.5 Microbial standards for surfaces in contact with products are as follows:

- a) Thorough clean surfaces:
 

Total viable count (TVC)	: less than 10/cm <sup>2</sup>
Coliform count	: 0
- b) Clean surfaces:
 

Total viable count (TVC)	: less than 50/cm <sup>2</sup>
Coliform count	: 0
- c) Surface in use:
 

Total viable count (TVC)	: less than 1 000/cm <sup>2</sup>
Coliform count	: 0

## 14 PLANT WASTE WATER DISPOSAL

14.1 An efficient method of disposing of plant wastes should be provided. If permitted by local bye-laws, the plant waste may be discharged after proper treatment into a municipal sewer system, as this is most desirable. If a private septic tank or sewage disposal system is used, it shall be efficiently designed and operated so as not to produce objectionable conditions on or near the official premises. Normally, for removal of grease and manure catch basins and vibrating screen with hopper, respectively, should be provided.

### 14.2 Catch Basin for Grease Recovery

Catch basin for the recovery of grease should be suitably located and not placed in or near edible products department or area where edible products are unloaded from or loaded on to vehicles, To facilitate ready cleaning, such basins should have inclined bottoms and should be without covers. They should be so constructed that they may be completely emptied of their contents for cleaning. A hose connection for furnishing hot water for cleaning purposes should be provided at convenient locations near the basin. The area surrounding an outside catch basin should be facilities should be provided for the transfer of grease to the point of disposal after it is skimmed from the basins by mechanical or other means.

### 14.3 Manure Removal

A separate drain line for water containing manure should be provided. This waste water may be pumped by wet pit or dry pit to non-clog pumps and manure screened out and disposed of by mechanical or the other suitable means. Some consideration as in catch basin should be given for location of this plant.

14.4 Buildings, manure and silos should be located in a way that minimizes their harmful influence on the environment; pollution of water sources by the slurry and manure should be prevented. Tanks for the collection of effluent and pre-purification plants must be situated at the lowest point of the site, on the dirty side.

## 15 SAFETY REQUIREMENT

There shall be adequate fire fighting arrangements and portable first aid fire appliances shall be fixed in accordance with IS 2190.

## 16 MEAT WORKERS/HANDLERS

16.1 Person possessing valid license or certificate by the municipality/corporation or

local authority should be employed in an abattoir. The license should be renewed once in two years after medical examination of the person.

16.2 Persons below the age of 18 years and above 58 years should not be employed.

16.3 Person suffering from communicable infectious/ contagious diseases should not be employed either to slaughter or work in the abattoir.

16.4 Daily routine health check up of all meat workers for cough/cold/fever/wounds should be done while entering the abattoir.

16.5 Wrist watches, gold/silver ornaments, flowers should not be worn and mobile phones and perfume should not be used in the slaughter/processing area.

16.6 All meat workers, both male and female should cover their head and trim their nails and wear proper clothing, hand gloves and gum boots to ensure hygiene.

16.7 When returning from an illness, management must demand a medical certificate from that person indicating that they have no impediment to return to work. (This is to prevent such a person contaminating the product with pathogenic microorganisms.)

16.8 A person with an open cut or abrasion should not handle the product unless the cut is completely covered with a coloured, waterproof covering.

16.9 All personnel working in the abattoir should maintain their own personal cleanliness.

16.10 Protective clothing includes light coloured overalls or a coat and trousers, chain mail gloves and aprons (where applicable), footwear and hair/snood coverings.

16.11 All personal belongings and clothing should be stored in an area away from the abattoir, in designated lockers.

16.12 Smoking and eating and/or drinking are not permitted in the production area.

16.13 Hand washing should be conducted on entering and leaving the abattoir, immediately after finishing any task that involved contact with intestinal contents/ faecal material on the carcasses and after using the toilet facilities.

16.14 The access of visitors should be controlled to prevent contamination.

16.15 All necessary precautions should be taken to prevent cross-contamination, including the use of protective clothing, hair covering and footwear by all visitors.

## Bureau of Indian Standards

BIS is a statutory institution established under the Bureau of Indian Standards Act, 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

## Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

## Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc No.: FAD 18 (2443).

## Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
 Telephones : 2323 0131, 2323 3375, 2323 9402      Website: www.bis.org.in

### Regional Offices:

	Telephones
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

**Branches:** AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. COIMBATORE. DEHRADUN. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KOCHI. LUCKNOW. NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. VISAKHAPATNAM.