Compendium of

Notifications of Fresh, Frozen and Processed Fish & Fishery Products

Notification

S.O. 730 (E) dated 21st August 1995

Sub-sequently amended vide No. Notifications

S.O. 415 (E) dated 11th April 2002,

S.O. 1029 (E) dated 24th September 2002,

S.O. 1034 (E) dated 9th September 2003,

S.O. 717 dated 25th February 2005,

S.O. 612 dated 15th February 2007,

S.O. 1519 dated 16th June 2008,

S.O. 2714 (E) dated 28th October 2009 &

S.O. 143 (E) dated 21.1.2011

S.O. 497(E) dated 10.3.2011

Compiled on 03.1.2012

MINISTRY OF COMMERCE

NOTIFICATION

New Delhi, the 21 August, 1995

S.O. 730 (E). – In exercise of the power conferred by Section 17 of the Export (Quality Control and Inspection) Act, 1963 (22 of 1963) and in supersession of Notification No. S.O. 1153 (a), dated 9-4-1988 relating to Frozen Fish and Fishery Products (Quality Control and Inspection). Rules, 1987 and Notification No. S.O. 863, dated 12-2-1983 relating to canned Fish & Fishery Products (Quality Control and Inspection). Rules, 1983, and Notification No. S.O. 953, dated 30-3-1987 relating to Frozen clain Meat (Quality Control and Inspection). Rules, 1987, except in respect of things done or omitted to be done before such suppression, the Central Government hereby makes the following rules, namely :-

1. Short title and commencement: (1) These rules may be called Export of Fresh, Frozen and Processed Fish & Fishery Products (Quality Control and Inspection and Monitoring) Rules, 1995.

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

2. For the purpose of these rules unless the context otherwise requires the following definitions shall be applicable.

2.1 'Act' means the Export (Quality Control and Inspection) Act, 1963 (22 of 1963).

2.2 'Agency' means any one of the Export Inspection Agencies at Bombay, Calcutta, Cochin, Delhi and Madras established under Section 7 of the Act.

2.3 'Council' means the Export Inspection Council established under Section 3 of the Export (Quality Control and Inspection) Act, 1963.

2.4 'Fresh' Frozen and Processed Fish and Fishery Products' means all sea water, fresh water animals or part thereof, including their roes, in fresh, chilled, frozen or processed form, but excluding frogs.

2.5 'Aqua culture Products' means all fishery products born and raised in controlled conditions until placed on the market as a foodstuff. However, seawater or fresh water fish or crustaceans caught in their natural environment when juvenile and kept until they reach the desired commercial size for human consumption are also considered to be aquaculture products. Fish and crustaceans of commercial size caught in their natural environment and kept alive to be sold at a later date are not considered to be aquaculture products if they are merely kept alive without any attempt being made to increase their size or weight;

2.6 'Chilling' means the process of cooling fishery products to a temperature approaching that of melting ice.

2.7 'Fresh Products' means any fishery products whether whole or prepared, including products packaged under vacuum or in a modified atmosphere, which have not undergone any treatment to ensure preservation other than chilling.

2.8 'Prepared Products' means any fishery product which has undergone an operation affecting its anatomical wholeness, such as gutting, heading, slicing, filleting, chopping etc.

2.9 'Processed products' means any fishery product which has undergone a chemical or physical process such as the heating, smoking, salting, dehydration or marinating, chilling, frozen etc. whether or not associated with other foodstuffs or a combination of these various processes.

2.10 'Preserve' means the process whereby products are packaged in hermetically sealed containers and subjected to heat treatment to the extent that any micro-organisms that might proliferate are destroyed, or inactivated, irrespective of the temperature at which the product is to be stored.

2.11 'Frozen Products' means any fishery product which has undergone a freezing to reach a core temperature of- 18 °C or lower after temperature stabilization.

2.12 'Packaging' means the procedure of protecting fishery products by a wrapper, a container or any other suitable device.

2.13 'Batch'/ 'Code' means the quantity of fishery products processed under practically identical circumstances during a discrete period of time, however, not exceeding one calender day.

2.14 'Consignment means the quantity of fishery products bound for one customer in the country of destination and conveyed by one means of transport only.

2.15 'Means of Transport' means those parts set aside for goods in automobile vehicles, rail vehicles and aircraft, the hold of vessels, and containers for transport by land, sea or air.

2.16 'Competent Authority' means any one of the Export Inspection Agencies at Bombay, Calcutta, Cochin, Delhi & Madras established under Section 7 of the Export (Quality Control and Inspection) Act, 1963.

2.17 'Establishment' means any premises where fishery products are prepared, processed, chilled, frozen, packaged or stored.

2.18 'Clean Sea-water' means sea water or bring water which is free from microbiological contamination, harmful substances and / or toxic marine plankion in such

quantities as may affect health and safety aspect of fishery products and which is used under the conditions laid down in this notification.

2.19 'Potable water' means Water used for processing which meet tolerance levels as per EEC Directive No. 80/778-EEC (Quality tolerances for water intended for food industry).

2.20 'Factory Vessel' means any vessel on which fishery products undergo one or more of the following operations followed by packaging: filleting, slicing, skinning, mincing, freezing or processing.

The following are not deemed to be 'factory vessels:

- Fishing vessels in which only shrimps and molluses are cooked on board:
- Fishing vessels on board on which only freezing is carried out.

(Inserted as per Notification no. S.O. 1034(E) dated 9th Sept. 2003)

In the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control and Inspection and Monitoring) Rules, 1995, in rule 2,-

(a) after sub-rule 2.20, the following sub-rule shall be inserted, namely: -

'2.21. "Director" means, the Director of Inspection and Quality Control appointed by the Central Government under Section 4 of the Export (Quality Control and Inspection) Act, 1963;'

(Below text inserted as Notification no. S.O. 612 dated 15th Feb, 2007)

In the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control, Inspection and Monitoring) Rules, 1995 (hereinafter referred to as the principal rules), in rule 2, after clause 2.20, the following definitions may be inserted, namely:-

"2.21" For clause "2.21" relating to freezer vessel, clause "2.21a" shall be substituted as per **Notification no. S.O. 143 (E) dated 21.1.2011** 'Freezer vessels' mean vessels where fishery products are frozen and stored for further processing and packing on land.

2.22 'Fishing vessels' means vessels engaged in fishing activities where fishery products are stored in optimal conditions for further processing, freezing and packing on land".

(Below text inserted as Notification no. S.O. 497 (E) dated 10th March 2011)

"2.23 - 'Aquaculture Farm' means the area where aquatic animals like shrimp, prawn, fish or any other aquatic life are kept under controlled conditions in ponds, pens, enclosures, coastal areas or otherwise, in saline, brackish or fresh water, so as to increase their size or weight."

"2.24 - 'Hatchery' means any premises for breeding, hatching or rearing of Finfish and Shellfish through their early life stages under controlled conditions."

"2.25 - 'Feed Mill' means any premises for mixing, mincing and extruding ingredients for making feed for Finfish and Shellfish."

"2.26 - 'Feed' means any substance or product, including additives, whether processed, partially processed or unprocessed, intended to be used for oral feeding to Finfish and Shellfish."

"2.27 - 'Registering Authority' means any authority authorized / designated / recognized by the 'Competent Authority' to register aquaculture farms / hatcheries / feed mills / fishing vessels / freezer vessels / factory vessels / landing centers / establishments."

3 Basis of compliance:-

It is the primary responsibility of the "establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" **(text inserted as Notification no. S.O. 497 (E) dated 10th March 2011)** to ensure that the fresh frozen and processed fishery products intended for export are handled, processed at all stages of production, storage and transport under proper hygienic conditions so as to meet the health requirements laid down under these Rules and that the products conform to the specifications given in the order by the Central Government under Section 6 of the Act.

The Competent Authority shall ensure that the "establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" **(text inserted as Notification no. S.O. 497 (E) dated 10th March 2011)** comply with the requirements, by regular monitoring of the "establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" **(text inserted as Notification no. S.O. 497 (E) dated 10th March 2011)** as per the control measures prescribed in Clause 13 of this rules. For effective monitoring of the scheme, Export Inspection Council will issue necessary instructions in this regard.

4. The fresh, frozen and processed fish and fishery products for export shall be subjected to the following conditions:

4.1 Any statutory restrictions imposed by any State / Central Governments with respect to commercial / environmental conservation measures from time it time shall strictly be adhered to.

4.2 They must have been caught and where appropriate, handled for bleeding heading, gutting and removal of fins, chilled or frozen on board vessels in accordance with prescribed hygiene rules.

4.3 They must have where appropriate been handled in factory vessels approved by the competent authority as per and in accordance with the requirements specified in Annexure-I.

4.4 During and after landing they must have been handled in accordance with ANNEXURE-II.

4.5 They must have been handled and, where appropriate, packaged, prepared, processed, frozen, defrosted or stored hygienically in establishments approved in accordance with ANNEXURE-III and ANNEXURE-IV.

4.6 They must have undergone health check in accordance with ANNEXURE-V.

4.7 They must have been appropriately packaged in accordance with ANNEXURE-VI.

4.8 They must have been given an identification mark in accordance with ANNEXURE- VII

4.9 They must have been stored and transported under satisfactory conditions of hygiene in accordance with ANNEXURE-VIII.

5. Where vetting is required from a technical and Commercial view point it must be carried out as quickly as possible after the products have been caught or landed.

6. The aquaculture products shall be subject to the following conditions:

6.1 They must either be made headon, shellon shrimp or beheaded, deshelled, gutted, cleaned, deveined etc. under proper conditions of hygiene. They must not have been soiled with earth, slime or faces or otherwise contaminated. If not processed immediately after having been preprocessed they must have been chilled.

6.2 They must in addition, comply with the appropriate requirements laid down under 4.3 to 4.7.

For sub-rule 6.2, the following is substituted as per Notification No. S.O. 497 (E) dated 10th March 2011.

"6.2 They must comply with the requirements laid down under 4.1, 4.2 and 4.4 to 4.9, as applicable to aquaculture products."

(Added as per Notification S.O. 2714 (E) dated 28th Oct 2009)

In the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control Inspection and Monitoring) Rules, 1995,(hereinafter referred to as the principal rules) in rule 6 after sub-rule 6.2 the following sub-rule shall be inserted, namely:-

"6.3.The establishments shall procure aquaculture products only from farms registered with Coastal Aquaculture Authority of India (CAAI) / Designated Authorities and monitored under the surveillance of Competent Authority."

For sub-rule 6.3, the following is substituted as per Notification No. S.O. 497 (E) dated 10th March 2011.

"6.3. The establishment shall procure aquaculture products only from farms registered with authorities authorized / designated by the Competent Authority."

After sub-rule 6.3, the following sub-rules are inserted as per Notification No. S.O. 497 (E) dated 10th March 2011.

"6.4 The aquaculture farm shall procure juvenile fish or crustaceans caught when juvenile only from hatcheries duly registered with the registering authority and approved and monitored by the competent authority.

6.5 The aquaculture farm and hatcheries shall procure feed only from feed mills duly registered with the registering authority and approved and monitored by the competent authority."

7. The following Fishery Products shall be forbidden for exports.

i. Poisonous fish of the following families:

- Tetra odontidae, Molidae,
  Diodontidae, Canthigasteridae.

ii Fishery products containing biotoxins such as ciguatera toxin or muscle paralysing Toxins.

8.1 In the case of export of bivalve molluses in processed condition, harvesting, transport, relaying, purification and processing shall be carries cut in accordance with the requirements of the importing countries.

8.2 The activities at 8.1 shall be approved and regularly monitored by the competent authority which may take the assistance of representatives from MPEDA SFEAI and the local fisheries department / fishing harbour.

9. The industry shall ensure that persons responsible for the establishment take all necessary measures so that all stages of production if fish products the specifications are complied with and to that and the said persons must carry out their own checks based on the following requirements

9.1 Identification of critical points in their establishment on the basis of the manufacturing process used.

9.2 Establishment and implementation of methods for monitoring and checking such critical points.

9.3 Taking samples for analysis in an approved laboratory by the recognised competent authority for the purpose of checking the cleaning and dis-intection methods and for the purpose of checking compliance with the requirements in this notification.

9.4 Keeping a written record or record register in indelible fashion of the preceding points with a view to submitting them to the competeal authority. The result of the different checks and tests will in particular be kept for a period of at least 2 years.

9.5 Detailed rules for application of this clause have been given in ANNEXURE-IX.

9.6 The establishment / factory vessels / hatchery / feed mills **(substituted as per Notification No. 497 (E) dated 10th March 2011)** shall have competent and qualified technologist duly approved by the competent authority to conduct own checks and allied duties referred at Clause 9 above.

9.6.1 The person responsible for the establishment / factory vessels / hatchery / feed mills **(substituted as per Notification No. 497 (E) dated 10th March 2011)** shall possess one of the qualification and experience training as the case may be.

(i) Graduate / Post Graduate in Fishery Science, Fishery Management, Industrial Fisheries or Fish Processing;

(ii) a. Graduate/Post Graduate in Marine Biology, Fishery Biology, Microbiology, Chemistry Zoology Biology, Biochemistry, Bioscience or, Food Processing Technology; and

b. One years experience in Fish Processing and Quality Control or Trading for minimum 6 months duration in a Government recognized institute in Fish Processing and Quality Control.

10. If the result of own checks or any information al the disposal of the persons responsible referred to above reveal the risk of health of suggest that one might exist, appropriate measures shall be taken under official supervision of the recognized competent authority

11. Having satisfied itself that that **"establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" (text substituted as per Notification S.O. 497 (E) dated 10th March 2011)** meet the requirements with regard to the nature of the activities they carry out the competent authority shall accord approval to such **"establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" (text substituted as per Notification S.O. 497 (E) dated 10th March 2011)**.

If the **"establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills" (text substituted as per Notification S.O. 497 (E) dated 10th March 2011)** decide to carry out activities other than those for which it has received approval, specific approval from competent authority shall be obtained for that purpose.

12. The competent authority may take the assistance of representatives from Marine Products Export Development Authority (MPEDA) and Seafood Exports' Association of India (SEAI) of Industry in the matter of approval of establishment / factory vessel.

(The following is substituted as per Notification S.O. 497 (E) dated 10th March 2011)

"12. The competent authority may take assistance of representatives from Marine Products Export Development Authority (MPEDA) and / or any other organization, in the matter of approval of establishment / landing center / factory vessel / freezer vessels / fishing vessels / aquaculture farm / hatchery / feed mill."

12.1 Recognised competent authority shall take necessary measures if the requirements cease to be met.

12.2 The Recognized competent agency shall draw up a list of the approved **"establishments / factory vessels / freezer vessels"** (text substituted as per Notification S.O. 497 (E) dated 10th March 2011) each of which shall have an official number and the recognized competent authority shall notify appropriate authorities of its list of approved **"establishments / factory vessels / freezer vessels"** (text substituted as per Notification S.O. 497 (E) dated 10th March 2011) and any subsequent change thereof.

(Inserted as per Notification S.O. 1034(E) dated 9th Sept. 2003)

After sub-rule 12.2, the following sub-rule shall be inserted, namely: -

"12.3. The Director may take the assistance of Marine Products Export Development Authority (MPEDA) or any other suitable organisation for residue monitoring."

13. The inspection and monitoring of **"establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills"** (text substituted as per Notification S.O. 497 (E) dated 10th March 2011) shall be carried out regularly under the responsibility of the recognised competent authority which shall at all times have free access to all parts of the **"establishments / landing centers / factory vessels / freezer vessels / fishing vessels / aquaculture farms / hatcheries / feed mills"** (text substituted as per Notification S.O. 497 (E) dated 10th March 2011) and records pertaining to application of this notification.

14. For inspection and monitoring of bivalve molluses pre-processing centres and landing centres of other fish products, the competent authority may take the assistance of representatives of MPEDA & SIEAI.

15. Certification:

On request from the processor/exporter, the competent authority shall issue Health / veterinary certificate in the prescribed proforma after satisfying itself that the Fresh, Frozen, Processed Fish and Fishery Products are processed in approved establishments / factory vessels having valid approval number and after satisfying the relevant requirements.

15.1 The competent authority shall issue certificates on request from the exporter / processor after satisfying itself that the requirements of the relevant standards are met.

16. Fees.

16.1 A fee of Rs.2,000/- shall be paid by the processing Establishment / Factory Vessel along with the application for approval as per Clause No. 11 of these rules.

16.2 A monitoring fee at the following rate shall to be paid by the Processing Establishment / Factory Vessel, to the ELA:

Unit Exports Turn Over

Under Rs**.** 10 crores per annum.

Rs. 10 Crores and above per annum.

Monitoring Fee

0.2% of F.O.B.value of exports

0.15% with a minimum of Rs. 2 lakhs and a maximum of Rs. 5 lakhs.

(Substituted as per Notification No. S.O. 415(E) dated 11th April, 2002)

1. In the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control, and Inspection and Monitoring) Rules 1965, in rule 16.2, the following proviso shall be inserted, namely:

"Provided that a reduced monitoring fee at the rate of 0.075% of F.O.B. value of export of marine products for the period from 21.8.95 to 24.10.96 shall be paid by the processor or the exporter to the concerned Agency.

(Substituted as per Notification No. S.O. 1029 (E) dated 24th Sept. 2002)

In the Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control and Inspection and Monitoring) Rules, 1995, for rule 16.2, the following shall be substituted, namely:-

"16.2- A monitoring fee @ 0.2% of F.O.B. value shall be paid by the processor or the exporter to the concerned Export Inspection Agency."

(Substituted as per Notification S.O. 1519 dated 16th June 2008)

In the Export of Fresh Frozen and Processed Fish and Fishery Products (Quality Control, Inspection and Monitoring) Rules,1995, for rule 16.2, the following rule shall be substituted, namely: -

"16.2. A monitoring fee @ 0.20% of free on board (F.O.B) value shall be paid by the processor or the exporter to the concerned Export Inspection Agency with a maximum of Rs.15 lakhs per annum per exporter or processor.

Note: The amount of monitoring fee for each consignment paid by the exporter shall be rounded off to the nearest rupee and, for this purpose, where such amount contains a

part of a rupee consisting of paise, then, if such part is fifty paise or more, it shall be increased to one rupee and if each part is less than fifty paise, it shall be ignored."

17 Appeal

17.1 Any person aggrieved by:

(i) Decision of the competent authority not to accord approval as per rule 11 of this notification:

(ii) Decision of the Competent Authority to withdraw approval as per Rule 12.1 of this notification:

(iii) Refusal of Competent Authority to issue Health / Veterinary Certificate as per Rule 15 of this notification-

May prefer an appeal within 10 days of receipt of such communication to an Appellate Authority appointed by the Central Government.

17.2 At least two-thirds of the total membership of the Appellate Authority shall consist of non-officials.

17.3 The quorum for any meeting at the Appellate Authority shall be three.

17.4 The appeal shall be disposed of within 15 days of its receipt.

(Substituted as per Notification no. 717 dated 25th Feb. 2005)

In the Export of Fresh, Frozen and Processed Fish and Fishery Products(Quality Control, Inspection and Monitoring) Rules, 1995 in rule 17, for sub-rule 17.4, the following sub-rule shall be substituted, namely:-

"17.4 The appeal shall be disposed of within thirty days of its receipt"

ANNEXURE-I

CONDITIONS APPLICABLE TO FACTORY VESSELS

I. Conditions concerning design and equipment.

1. The minimum requirements for factory vessels are as follows:

1.1 A reception area set aside for taking fishery products on board designed and arranged into pounds or pens that are large enough to allow each successive catch to be separated. The reception area and its movable parts must be easy to clean. It must be designed in such a way as to protect the products from the sun or the elements and from any source of dirt or contamination.

1.2 A system for conveying fishery products from the reception area to the work area that conform with rules of hygiene;

1.3 Work areas that are large enough for the preparation and processing of fishery products in proper condition of hygiene. They must be designed and arranged in such a way as to prevent any contamination of the products:;

1.4 Storage for the finished products that are large enough and designed so that they are easy to clean. If a Waste processing Unit operates on board a separate hold must be designated for the storage of these by-products;"

1.5 A place for storing packaging materials that is separate from the product preparation and processing areas:

1.6 Special equipment for pumping, waste or fishery products that are unfit for human consumption either directly into the sea of where circumstances so require, in to a water tight tank reserved for that purpose. If waste is stored and processed on board with a view to cleaning, separate areas must be allocated for that purpose:

1.7 Sufficient supply of potable water or pressurized clean sea water shall be provided. The sea water intake must be situated in a position where it is not possible for the water being taken into be affected by discharge in to the sea of waste water, waste and engine coolant outlets:

1.8 A suitable number of changing rooms, wash basins and toilets, the latter not opening directly on, to areas where fishery products are prepared, processed or stored. The wash basins must be equipped with appliance for washing and drying the hands that comply with hygiene requirements, the wash basin tap must not be hand-operable.

2. Areas used for the preparation and processing or freezing/quick-freezing of fishery products must have:

2.1 A non-slip floor that is also easy to clean and disinfect and equipped for easy drainage of water. Structures and fixtures must have limber holds that are large enough not to be obstructed by fish waste and to allow water to drain freely:

2.2 Walls and ceilings that are easy to clean particularly where there are pipes, chains or electricity conduits;

2.3 The hydraulic circuits must be arranged or protected in such a way as to ensure that it is not possible for ant leakage of oil to contaminate fishery products.

2.4 Adequate ventilation and, where necessary, proper vapour extraction:

2.5 Adequate lighting:

2.6 Appliances for cleaning and disinfecting tools, equipment and fitting:

2.7 Appliance for cleaning and disinfecting the hands with taps that are not hand-operable and with single use towels.

3 Equipments and tools such as tables, cutting benches, containers, conveyors, gutting or filleting machines, etc. must be resistant to sea water corrosion, easy to clean and disinfect and well maintained.

4 Factory vessels which freeze fishery products must have

4.1 A refrigeration plant sufficiently powerful to lower the temperature rapidly so as to achieve a core temperature that complies with the specifications of this notification;

4.2 Refrigeration plants sufficiently powerful to keep fishery products in the storage holds at a temperature that complies with the specifications of this notification. The storage holds must be equipped with an automatic temperature recording system placed so that it can easily be read.

II. Conditions of hygiene relating to on board handling and storage of fishery products.

1. A qualified person on board the factory vessel must be responsible for applying good fishery products manufacturing practices. That person shall have the authority to ensure that the provisions of this notification are applied and shall make available to inspectors the programme for inspecting and checking critical points as applied on board, a register containing that person's comments and the temperature recordings that may be required.

2. The general conditions of hygiene applicable to areas and equipments shall be those laid down in ANNEXURE-III, Section II.

3. The general conditions of hygiene applicable to staff shall be those, laid down in Annexure-III, Section-II (2).

4. Heading, gutting and filleting must be carried out under the conditions of hygiene laid down in Annexure-IV, Section 1(2), (3) and (4)

5. On-board processing of fishery products must be carried out under the conditions of hygiene laid down in Annexure-IV, Section-III, IV & V.

6. Fishery products must be wrapped and packed under the conditions of hygiene laid down in Annexure VI.

7. On-board storage of fishery products must be carried out under the conditions of hygiene laid down in Annexure-VIII Para (1) and (2).

(Inserted as per Notification S.O. 612 dated 15th Feb. 2007)

In the principal rules, in Annexure-I, after clause II, the following clause shall be inserted, namely:-

"III. Conditions Applicable to Fishing Vessels and Freezer Vessels.

1. Minimum requirements for fishing vessels or freezer vessels are as follows:

1.1 Vessels must be designed and constructed so as to avoid contamination of the products with bilge water, sewage, smoke, fuel, oil, grease or other objectionable substances.

1.2 Surfaces with which fishery products come in contact must be of suitable corrosion-resistant material that is smooth, non toxic and easy to clean.

1.3 Vessels designed and equipped to preserve fresh fishery products for more than 24 hours shall be equipped with holds, tanks or containers for the storage of fishery products at a temperature approaching that of melting ice. These holds shall be separated from the machinery space and the crew quarters by partitions which are sufficient to prevent any contamination of the stored fishery products.

1.4 The holds shall be designed to ensure that melt water cannot remain in contact with fishery products.

1.5 Containers used for the storage of products shall be such as to ensure their preservation under satisfactory conditions of hygiene and in particular, allow drainage of melt water.

1.6 Equipments and material used for working fishery products shall be made of corrosion –resistant material that is easy to clean and disinfect.

1.7 If fishery products are frozen on board, this operation must be carried out with the conditions laid down in Annexure-IV (II) of these rules.

1.8 In vessels equipped for chilling fishery products in cooled clean seawater, tanks must incorporate devices for achieving a uniform temperature throughout the tanks. Such devices must achieve a chilling rate that ensures that the mix of fish and clean seawater reaches not more than 3°C six hours after loading and not more than 0°C after 16 hours.

1.9 The freezer vessels shall have equipment with sufficient capacity to lower the temperature of the products rapidly so as to achieve a core temperature of not more than -18°C and have refrigeration equipment with sufficient capacity to maintain fishery products in the storage holds at not more than -18°C. Storage holds shall be equipped with a temperature-recording device in a place where it can be easily read. The temperature sensor of the reader shall be situated in the warmest area of the cold store.

2. General hygiene conditions applicable to fishing and freezer vessels are as follows:

2.1 It shall be ensured that equipments, containers and all the fish contact surfaces shall be periodically cleaned with potable water or clean seawater and disinfected.

2.2 As soon as the fishery products are taken on board, they must be protected from contamination and from the effects of sun or any other source of heat. When the fishery products are washed, the water used must be either potable water or clean seawater, so as not to impair their quality and wholesomeness.

2.3 Fishery Products shall be handled and stored in such a way as to prevent bruising. The use of spiked instruments shall be tolerated for the moving of large fish or fish which might injure the handler, provided the flesh of these products is not damaged.

2.4 Fishery products other than those kept alive must undergo cold treatment as soon as possible after procurement, especially in case where the fishery products are to be stored for more than 8 hours on board.

2.5 Ice used for chilling of products must be made from potable water or clean seawater. Before use, ice must be stored under conditions, which prevent its contamination.

2.6 Where fish is headed and /or gutted on board, such operations must be carried out hygienically and the products must be washed immediately and thoroughly with potable water or clean seawater.

2.7 Equipments used for gutting, heading etc. and also the container used for storing fishery products shall be made of or coated with a material which is waterproof, resistant to decay, smooth and easy to clean and disinfect.

2.8 Staff assigned to the handling of fishery products shall be required to maintain a high standard of cleanliness for themselves and their clothes. Persons liable to contaminate fishery products shall not be permitted to handle the products.

2.9 Cleaning products, disinfectants, insecticides and all potentially toxic substances shall be stored in locked premises or cupboards. Their use must not present any risk of contamination of the fishery products."

ANNEXURE-II

REQUIREMENTS DURING AND AFTER LANDING

1. Unloading and landing equipment must be constructed of material which is easy to clean and disinfect, and must be kept in a good state of repair and cleanliness.

2. During unloading and landing, contamination of fishery products must be avoided. It must in particular be ensured that:

2.1 Unloading and landing operations proceed rapidly ;

2.2 fishery products are placed without unnecessary delay in a protected environment at the temperature required on the basis of the nature of the product and, where necessary, in ice, in transport, storage or in an establishment;

2.3 equipment and handling practices that cause unnecessary damage to the edible parts of the fishery products are not authorized.

3. Parts of auction or wholesale markets where fishery products are displayed for sale must;

3.1 be covered and have walls which are easy to clean;

3.2 have waterproof flooring which is easy to wash and disinfect, and laid in such a way as to facilitate the drainage of water and have a hygienic waste water disposal system:

3.3 be equipped with sanitary facilities with an appropriate number of wash basins and flush lavatories. Wash basins shall be supplied with materials for cleaning the hands and single use hand towels;

3.4 be well lit to facilitate the inspection of fishery products;

3.5 when they are used for display or storage of fishery products not be used for other purposes, vehicles admitting exhaust fumes which may impair the quality of the fishery products must not be admitted to markets, undesirable animals must not be admitted ;

3.6 be cleaned regularly and at least after each sale, crates must after each sale, be cleaned and rinsed inside and outside with potable water or clean seawater; where required, they must be disinfected;

3.7 have displayed in a prominent position signs prohibiting smoking, spitting , eating and drinking;

3.8 have facilities to provide adequate water supplies;

3.9 have special watertight receptacles made of corrosion resistant materials for fishery products which are unfit for human consumption;

4. After landing or, where appropriate, after first sale, fishery products must be transported without delay at temperature of melting ice.

5. The general conditions of hygiene laid down in Annexure-III, Section-II, with the exception of point 2.1.1 shall apply mutatis mutandis to the markets in which fishery products are displayed for sale or stored.

6. The wholesale markets in which fishery products are displayed for sale or stored shall be subject to the same conditions as those laid down in points 3 & 5 of this Annexure and to those set out in points 2, 11, 12, of Section-I of Annexure-III.

7. The general conditions of hygiene laid down in Annexure-III, Section-II shall apply mutatis mutandis to wholesale markets.

ANNEXURE III

I. GENERAL CONDITIONS RELATING TO PREMISES, BUILDING AND EQUIPMENTS

1. Premises and building

1.1 The immediate approaches of the processing areas shall be concreted or tarred or turfed to prevent wind blown dust.

1.2 The processing establishment shall be housed in a building of permanent nature; affording sufficient protection from normal climatic hazards like wind blown dust and rain and shall be of sufficient size for work to be carried out under adequate hygienic conditions. Their design and layout shall be such as to preclude contamination of the product. Clean and contaminated parts of the building shall be properly separate.

1.3 The food handling areas shall be completely separated from the area used for residential purpose.

1.4 The layout of different sections shall be in such a way as to facilitate the smooth and orderly flow of work to prevent possible cross contamination.

1.5 There should be adequate natural or artificial lighting. The bulbs and tubes should have protective covering.

1.6 There shall be adequate facilitate for natural mechanical ventilation system to provide fresh air and where necessary good steam and water vapour extraction facilities shall be provided. Ventilation opening shall be provided with fly proofing arrangements.

2. Fly-proofing, vermin and animal control

2.1 The processing areas including the raw material receiving and storing area shall be provided with effective fly-proofing arrangements. Suitable steps shall also be taken to prevent the entry of insects, rodents, birds and animal into the processing area.

3. Receiving area

3.1 There shall be a raised platform to unload the raw material before being taken to the raw material receiving area. The sides and top of this platform shall be sufficiently protected from extraneous contamination.

3.2 The area in which the raw material is received and stored shall be so separated from the area in which the finished product is prepared or packed as to eliminate contamination.

4. Ceiling wall and floor of work rooms.

4.1 The floor of the food handling area shall be water proof easy to clean and disinfect and laid down in such a way as to facilitate the drainage of the water easily or provided with equipment to remove water. There shall be no waster stagnation on the floor.

4.2 The internal walls of the food handling area shall be durable and have smooth surface which are easy to clean, and impermeable waterproof and light coloured.

4.3 Walls shall be free from projection and all pipes and cables shall be neatly covered.

4.4 . Wall to wall and wall to floor junctions shall be rounded off to facilitate proper cleaning.

4.5 Ceiling shall be free from cracks and open joints and shall be smooth, waterproof, light coloured and easy to clean.

4.6 All doors and windows shall durable and made of corrosion resistant material and shall be of self closing type and easy to clean with fly proofing arrangements.

4.7 All window sills shall be sloping inwards.

4.8 All entry points into the processing areas shall be provided with feet washing pit of suitable size. The pit shall be provided with potable water and disinfectant. The stagnant water shall be changed at frequent intervals.

4.9 All entry points into the processing area shall be provided with adequate facilities for cleaning and disinfecting hands.

4.10 Instruments and working equipments such as tables, containers, conveyor belts, knives and other utensils used shall be of smooth corrosion resistant materials, easy to clean and disinfect.

4.11 Utensils used for inedible or contaminated materials shall be identified by specific mark or colour or shape and shall not be used for handling edible products. Adequate waste receptacles shall be provided for frequent removal of waste from the working areas.

4.12 Ice crusher or flake ice machine shall be provided.

5. Machinery

5.1 Freezing equipments sufficiently powerful to achieve a rapid reduction in the temperature so that the required core temperature is obtained within the minimum period shall be provided.

5.2 The freeing equipment shall be fitted with gauges to indicate temperature and pressure.

6. Cold rooms / Storage

6.1 Chill room and ice store shall be provided wherever necessary.

6.2 the cold rooms where the finished products are stored shall have sufficiently powerful refrigeration plant to keep products at temperature prescribed.

6.3 The floor of the cold rooms shall be water proof, easy to clean and disinfect and laid-down in such a manner as to facilitate the drainage of water or shall be provided with equipment to remove water.

6.4 Wall shall have smooth surface and shall be durable, impermeable and easy to clean.

6.5 Ceiling or proof linings shall be easy to clean.

6.6 Doors shall be of durable material and easy to clean.

6.7 There shall be adequate lighting.

6.8 The ideal temperature of the cold storage shall be minus 18° Celsius or below.

6.9 The cold storage shall have be fitted with automatic temperature recording device.

6.10 The cold storage shall have suitable arrangement on the floor and walls to facilitate free circulation of air.

6.11 An ante-room of suitable size shall be provided.

6.12 There shall be an efficient alarm system.

6.13 Air curtains shall be provided at the entrance of the ante-room and cold storage.

6.14 The cold storage shall be maintained in good hygienic conditions.

7. Facilities for adequate supplies of potable water or alternatively, clean sea-water or see water treated by an appropriate system under pressure and in sufficient quantity shall be provided. However, by way of exception, a supply of non-drinking water is permissible for the production of steam, fire fighting and the cooling of refrigeration equipment, provided that the pipes installed for the purpose preclude the use of such water for other purpose and present no risk of contamination of the products. Non-drinking water pipes shall clearly distinguished from those used for drinking water or clean sea-water.

8. Arrangements for hygienic waste water disposal shall be provided.

9. Facilities to provide sufficient quantities of good quality ice manufactured from potable water in crushed form or flake/chunk ice.

10. An adequate number of changing rooms with smooth, waterproof, washable walls and floor, wash basins flush lavatories and lockable cupboards shall be provided. The lavatories shall not open directly on to the work rooms. The wash basin must have materials for cleaning the hands and disposable towels, the wash basin taps must not be hand-operable.

11. If the volume of products treated requires regular or permanent presence an adequately equipped lockable room for the exclusive use of the inspection service shall be provided.

12 There shall be adequate facilities for cleaning and disinfecting means of transport.

13. Establishments keeping live animals such as Crustaceans and fish must have appropriate fittings ensuring the best survival conditions provided with water of a quality such that no harmful organisms or substances are transferred to the animals.

II. General conditions of hygiene

1. General conditions of hygiene applicable to premises and equipment:

1.1 Floors, walls and partitions, ceilings or roof linings, equipment and instruments used for working on fishery products must be kept in a satisfactory state of cleanness and repair so that they do not constitute a source of contamination for the products.

1.2 Rodents, insects and any other vermin must be systematically exterminated in the premises or on the equipments. Rodenticides, insecticides, disinfectants and any other potentially toxic substances must be stored in permies or cupboards which can be locked up their use must not present any risk of contamination of the product

1.3 Working areas, instruments and working equipment must be used only for work on fishery products. However, on authorisation by the competent authority they may be used for work on other foodstuffs also.

1.4 Potable water or clean sea-water must be used for all purposes. However, by way of an exception non-potable water may be used for steam production, fire fighting and the cooling of refrigeration equipment, provided that the pipes installed for the purpose preclude the use of such water for other purpose and present no risk of contamination of the products.

1.5 Detergents, disinfectants and similar substances must be approved by the competent authority and used in such a way that they do not have adverse effects on the machinery, equipment and products.

2. General conditions of hygiene applicable to staff:

2.1 The highest possible standard of cleanliness is required of staff. More specially :

2.1.1 Staff must wear suitable clean working clothes and headgear which completely encloses the hair. This applies particularly to persons handing exposed fishery products;

2.1.2 Staff assigned in the handing and preparation of fishery products must be required to wash their hand at least each time to work is resumed. Wounds on the hands must be covered by a water proof dressing.

2.1.3 Smoking, spitting, eating and drinking in work and storage premises of fishery products must be prohibited.

2.2 The employer shall take all the requisite measures to prevent persons liable to contaminate fishery products from working on and handling them until there is evidence that such persons can do so without risk.

When recruited, any person working on and handling fishery products shall be required to prove by a medical certificate, that there is no impediment to such employment. The medical supervision of such a person shall be governed by the national legislation in force.

ANNEXURE-IV

FISHERY PRODUCTS ON SHORE

I. Conditions for fresh products:

1. Where chilled unpackaged products are not despatched prepared or processed immediately after reaching the establishment's cold room, Re-icing must be carried out as often as is necessary, the ice used with or without salt, must be made from potable water or clean sea-water and be stored under hygiene conditions in receptacles provided for the purpose; such receptacles must be kept clean and in good state of repair, repacked fresh products must be chilled with ice or mechanical refrigeration plant creating similar temperature conditions.

2. If they are not carried out on board, operation such as heading and gutting must be carried out hygienically. The products must be washed thoroughly who potable water or clean seawater immediately after such operations.

3. Operations such as filleting and slicing must be carried out in such a way as to avoid the contamination or spoilage of fillets and slice, and in a place other than that used for heading and gutting operations. Fillets and slices must not remain on work tables any longer than is necessary for their preparation. Fillets and slices to be sold fresh must be chilled as quickly as possible after preparation.

4. Guts and parts that may constitute a danger to public health must be separated from and removed from the vicinity of products intended for human consumption.

5. Containers used for the despatch or storage of fresh fishery products must be designed in such a way as to ensure both their protection from contamination and their preservation under hygienic conditions and more particularly the must provide adequate drainage of melt water.

6. Unless special facilities are provided for the continuous disposal of waste, the latter must be placed in leak proof, covered container which are easy to clean and disinfect.

Waste must not be allowed to accumulate in working areas. It must be removed either continuously or as soon as the containers are full. At the end of each working day, the waste Containers shall be shifted to premised intended for storage of such containers. The containers, receptacles and or premises set aside for waste must always be thoroughly cleaned and, if appropriate, disinfected after use. Waste stored there must not constitute a source of contamination for the establishment or of pollution of its surroundings.

II. Conditions for frozen product :

1 Plants must have:

1.1 Freezing equipment sufficiently powerful to achieve a rapid reduction in the temperatures so that the temperatures laid down in this notification can be obtained in the products.

1.2 Freezing equipment sufficiently powerful to keep products in storage rooms at a temperature no exceeding those laid down in this notification, whatever the ambient temperature may be.

However, for technical reasons related to the method of freezing and to the handling off such products, for whole fish frozen in brine and intended for canning, higher temperatures than those laid down in this notification are acceptable although they may not exceed ---9°C.

2. Fresh products to be frozen or quick frozen must comply with the requirements of Section-I of this Annexure.

3. Storage rooms must have a temperature recording device in a place where it can easily be read. The temperature sensor of the recorder must be located in the area furthest away from the cold source i.e where the temperature in the storage room is the highest. Temperature charts must be available for inspection by the supervisory authorities atleast during the period in which the products are stored.

III. Conditions for thawing products:

Establishment that carry out thawing operations must comply with the following requirements:

(1) fishery products must be thawed under hygienic conditions, their contamination must be avoided and there must be adequate drainage for any melt water produced; During thawing, the temperature of the products must not increase excessively;

(2) after thawing, fishery products must be handled in accordance with the requirements of this notification, when they are prepared of processed, these operations must be carried out without delay.

IV. Conditions for processed products :

1. Fresh, frozen and thawed products used for processing must comply with the requirements of Section-I or II of this Annexure:

2. Where the processing treatment is carried out to inhabit the development of pathogenic micro orgainsm, or if it is significant factor in the preservation of the product, the treatment must be specially recognised by the law in force and / or approved by the competent authority;

The person, responsible for an establishment must keep a register of the processing carried out. Depending of the type of process employed heating time and temperature, salt content, PH water

content etc. must be monitored and controlled. Records must be kept atleast for the expected storage life of the products and be available to the competent authority.

3. For products which are preserved for a limited period by a treatment such as salting, smoking, drying or marinating the appropriate conditions for storage must be clearly marked on the packaging.

4. Caning:

In the case of fishery products which have been subjected to sterilization in hermetically sealed containers;

4.1 The water used for the preparation of cans must be potable water.

4.2 The process used for the heat treatment must be appropriate, having regard to such major criteria as the heating time, temperature, filling, size of containers, etc, as record of which must be kept ; the heat treatment must be capable of destroying or inactivating pathogenic organisms and the spores of pathogenic micro-organisms. The hearting equipment must be fitted with devices for verifying whether the containers have in fact undergone appropriate heat treatment. Potable water must be used to cool containers after heat treatment, without prejudice to the presence of any chemical additives used in accordance with good technological practice to prevent corrosion of the equipment and containers:

4.3 Further checks must be carried out at random by the manufacturer to ensure that processed products have undergone appropriate heat treatment, viz

- incubation tests, incubation must be carried out at 37 □ 1ºC for seven days or at 35 □ 1ºC for ten days
- Microbiological examination of contents and containers in the establishment's laboratory or in another approved laboratory.

4.4 Samples must be taken of production each days at predetermined intervals, to ensure the efficiency of sealing. For that purpose appropriate equipment must be available for the examination of cross section of the can-seams.

4.5 Checks are carried out in order to ensure that containers are not damaged.

4.6 All containers which have undergone heat treatment under practically identical conditions must be given a batch identification mark.

5. Smoking.

Smoking must be carried out in separate premises or a special place equipped if necessary, with a ventilation system to prevent the smoke and heat from the combustion from affecting other premises or places where fishery products are prepared, processed or stored.

5.1 Materials used to produce smoke for the smoking of fish must be stored away from the place of smoking and must be used in such a way that they do not contaminate the products.

5.2 Material used to produce smoke by burning wood that has been painted, varnished, glued or has undergone any chemical preservation treatment must be prohibited.

5.3 After smoking, products must be cooled rapidly to the temperature required for their preservation before being packaged.

6. Salting:

6.1 Salting operations must take place in different premises and sufficiently removed from the premises where the other operations are carried out.

6.2 Salt used in the treatment of fishery products must be clean and stored in such a way as to preclude contamination. It must not be re-used.

6.3 Any container used for salting or brining must be constructed in such a way as to preclude contamination during the staling or brining process.

6.4 Containers or areas used for salting or brining must be cleaned before use.

7. Cooked crustacoans and molluscan shellfish products – Crustaceans and molluscan must be cooked as follows :

7.1 any cooking must be followed by rapid cooling, water used for this purpose must be potable water or clean sea-waster. If no other method of preservation is used cooling must continue until the temperature approaching that of melting ice is reached.

7.2 Shelling or shucking must be carried out under hygienic conditions avoiding the contamination of the product. Where such operations are done by hand workers must pay particular attention to the washing of their hands and all working surfaces must be cleaned thoroughly. If machines are sued, they must be cleaned at frequent intervals and disinfected after each working day. After shelling or shucking cooked products must immediately be frozen or kept chilled at a temperature which will preclude the growth of pathogens, and be stored in appropriate premises.

7.3 Every manufacturer must carry out microbiological checks on his production at regular intervals complying with the standards.

8. Mechanically recovered fish flesh.

The mechanical recovery of fish flesh must be carried out under the following conditions :

8.1 mechanical recovery of gutted fish must take place without undue delay after filleting, using raw materials free of guts. Where whole fish are used, they must be gutted and washed beforehand;

8.2 the machinery must be cleaned at frequent intervals and at least every two hours.

8.3 after recovery, mechanically recovered flesh must be frozen as quickly as possible or incorporated in a product intended for freezing or establishing treatment.

V. Conditions concerning parasites.

1. During production and before they are released for human consumption fish and fishery productions must be subject to a visual inspection for the purpose of detecting and removing any parasites that are visible. Fish or parts of fish which are obviously infested with parasites and which are removed must not be packed for human consumption.

2. The fish and fishery products referred to on point 3 which are to be consumed as they are, must, in addition, be subjected to freezing at a temperature of not more than – 20ºC in all parts of the product for not less than 24 hours. Products subjected to this freezing process must be either raw or finished.

3. Fish and fishery products subject to the conditions in point 2 :

3.1 fish to be consumed raw or almost raw .e.g. raw herring ‘Maastje’;

3.2 the following species, if they are undergo a cold smoking process at which the intervals temperature of the fish is less than 60º C.

- mackerel
- sprat.

3.3 Marinated and/ or salted herring where this process is insufficient to destroy the larvae of nematodes.

Criteria shall be laid down which must enable the process which are deemed sufficient or insufficient to destroy nematodes to be defined.

4. Manufacturers must ensure that fish and fish products listed in point 3 or the raw materials for use in their manufacture are subjected to the treatment described in point 2, prior to their release for consumption.

ANNEXURE –V

HEALTH CONTORL AND MONOTORING OF PRODUCTION CONDITION

1. General Monitoring:

The competent authority shall make adequate arrangements for checking and monitoring in order to establish that the requirements laid down in these rules are complied with.

Such arrangements shall include in particular :-

(1) a suitable check on the fishing vessels, on the under standing that such checks may be carried out during the stay of the vessel in port;

(2) a suitable check on the conditions of landing and first sale;

(3) suitable checks on harvesting, transport, relaying and purification areas of bivalve molluscs of pre processing and processing centres.

(4) an inspection at regular intervals of establishment of check to particular.

(a) whether pre-processed material has been processed from pre-processing premises having an adequate hygiene conditions.

(b) whether the conditions for approval are still fulfilled.

(c) whether the fresh frozen and processed fish and fishery products are handled correctly.

(D) whether the cleanliness of the premises facilities and instruments and staff hygiene are maintained.

(e) whether identification marks are put on correctly.

(5) A check on storage and transport conditions.

II Special checks :

1. Organoleptic checks:

The competent authority shall carry out inspection at the time of landing or before first sale and also during subsequent stages of processing, storage and transport to check, whether the products are fit for human consumption. The inspection comprises organoleptic checks carried out by sampling;

1.1 If the organoleptic examination reveals that the fishery products are not fit for human consumption, measures shall be taken to withdraw them from sale and to dispose them off in such way that the rejected material is not used for export.

1.2 If the organolaptic examination reveals any dout as to the freshness of the fishery products, use may be made of chemical checks or microbiological analysis

2 Parasing checks :

Before they are released for human consumption, fish and fishery products must be subjected to a visual inspection by way of sample, for the purpose of detecting any parasites that are visible. Fish or parts of fish which are obviously infested with parasites, and which are removed shall be disposed of in such a way that such material is not used for export.

3. Histamine check :

Wherever necessary samples shall be drawn and tested for Histamine content.

Nine samples must be taken from each batch. this must fulfil the following requirements:

- the mean value must not exceed 100 ppm.;
- two samples may have a value of more than 100 ppm; but less than 200 ppm;
- no samples may have a value exceeding 200 ppm.

These limits apply only to fish spices of the following families; Scombridge and Clupeidac. However, fish belonging to these families which have undergone enzyme ripcning treatment in brine may have higher histamine levels but not more than twice the above value. Examinations must be carried out in accordance with reliable, scientifically recognised methods, such as high-performance liquid chromatography (HPLC)

4. Contaminates present in the aquatic environments:

Without prejudice to the rules concerning water protection and management and in particular those concerning pollution of the aquatic environment, the fishery products must not contain in their edible parts contaminants present in the aquatic environment such as heavy metals and organochlorinated substances at such a level that the calculated distary make exceeds the acceptable daily or weekly intake for humans.

A monitoring system must be established by the competent authority to check the level of contamination of fishery products.

5. Microbiological analysis :

Wherever necessary, samples shall be drawn and tested for microbiological factor. Sampling plans, methods of analysis and acceptance criteria for this purpose shall be :

(a) As per the requirements of importing countries.

Or

(b) As per the microbiological Manual issued by Export Inspection Council.

ANNEXURE-VI

PACKAGING

1. Packaging must be carried out under satisfactory conditions of hygiene, to preclude contamination of the fishery products.

2. Packaging materials and products liable to enter into contact with fishery products must comply with all the rules of hygiene and in particular :

- they must not be such as to impair the organoleptic characteristic of the fishery products ;
- they must not be capable of transmitting to the fishery products substances harmful to human health.
- They must be strong enough to protect the fishery products adequately.

3. Containers used for transport of raw material to the processing plant shall not be used to store the accepted raw materials and also in subsequent processing such containers shall be identifiable by suitable colour or marks.

4. With the exception of certain containers made of impervious, smooth and corrosion resistant material which are easy to clean and disinfect, which may be re-used after cleaning and disinfecting, packaging materials may not be re-used. Packing material used for fresh products held under ice must provide adequate drainage for melt water.

5. Unused packaging materials must be stored in premised away from the production area and be protected from dust and contamination.

ANNEXURE –VII

1. Identification mark :

1.1 The packages of Fresh Frozen & Processed Fish and Fishery Products and accompanying documents shall bear the numerical processor Code (approval number) allotted by the competent authority followed by an abbreviation or full description of the name and type of the product year, month & date of production. An illustration is given below:

520 FSPO

4 A 10

- 520 the numerical code allotted by the competent authority to the processor;
- FS : name of the product (Frozen Shrimp)
- P.D; type of product (Pooled & Devined)
- 4 : year of processing (the last digit of 1994)
- A : the month processing (First month i.e January)
- 10 : data of processing (10th day of the month)

1.2 The following abbreviations shall be used for the month of the year.-

January	- A
February	- B
March	-C
April	- D
May	- E
June	- F
July	- G
August	- H
September	- J
October	- K
November	- L
December	- M

(Inserted as per Notification S.O. 2714 (E) dated 28th Oct. 2009

In the said principal rules, in Annexure – VII, after sub-clause 1.2, the following clause shall be inserted namely:-

"2. The packages of Fresh, Processed; Frozen or chilled and packed Aquacultured, Fish and Fishery products shall bear the registration number allotted by Coastal Aquaculture Authority of India / Designated Authorities to the farm from which the aquaculture products are procured."

ANNEXURE –VIII

STORAGE AND TRANSPORT

1.Fresh, Frozen and Processed Fish and Fishery Products must, during storage and transport, be kept at the temperature laid down in this notification and in particular :-

- Fresh or thawed fishery products and cooked and chilled crustacean and moluscan shellfish products must be kept at the temperature of melting ice.
- Frozen Fisheries Products with the exception of frozen fish in brine intended for the manufacturer of Canned Foods, must be kept at an even temperature of – 18° C or less in all parts of the product, allowing for the possibility of brief, upward fluctuations of not more than 3°C during transport.
- Processed products must be kept at the temperature specified by the manufacturer, when the circumstances so required.

2. Where frozen fishery products are transported from a cold storage / plant to an approved establishment to be thawed arrival for the purposes of preparation and / or processing and where the distance to be covered is short, not exceeding 50 km., or 1 hour journey, the competent authority may grant a derogation from the conditions laid down in point 1, second para.

3. Products may not be stored or transported with other products which may contaminate them or affect their hygiene, unless they are packaged in such a way as to provide satisfactory protection.

4. Vehicles used for the transport of fishery products must be constructed are equipped in such a way that the temperature laid down in this notification can be maintained through out the period of transport. If ice is used to chill the products, adequate drainage must be provided in order to ensure that water from melted ice does not stay in contact with the products. The inside surfaces of the means of transport must be finished in such a way that they do not adversely affect the fresh , frozen and processed fish and fishery products. They must be smooth and easy to clean and disinfect.

5. Means of transport used for fresh, frozen and processed fish and fishery products may not be used for transporting other products likely to impair or contaminate fishery products except when fishery products can be guaranteed uncontaminated as a result of such transport being thoroughly cleaned and disinfected.

6. Fresh frozen and processed fish and fishery products may not be transported in a vehicle or container which is not clean or which should have been disinfected.

7. The transport conditions of Fresh, Frozen and Processed Fish and Fishery Products to be exported shall be such that they do not adversely affect the product.

ANNEXURE-IX

In accordance with Clause 9 of the Notification guidelines must be laid down for application of principles on which own checks are to be based. It is also necessary to define what is meant by identification of critical points and the establishment and implementation of methods monitoring such critical points. It has also been prescribed that laboratories must be approved by the competent authority and written records must be maintained containing all information relating to the establishment of own checks and the result of these checks. Even though the design and introduction of own checks will differ from one establishment to another, it is necessary to issue some guidelines to facilitate the uniform application of Clause No. 9 of this notification.

1. "Own checks" means all those actions aimed at ensuring and demonstrating that fresh frozen and processed fishery products satisfy the requirements of the Notification. These action must correspond to an approach internal to the establishment and they must be developed and implemented by the persons responsible for each unit.

1.1 As part of internal approach the establishment may used guides of Good Manufacturing Practices drawn up by appropriate professional organisation and acceptable to the competent authority.

1.2 The persons responsible for the establishment must ensure that all staff concerned for "own checks" receive adequate training in order to effectively participate in the implementation process.

2. "Critical Point" means any point, step or procedure at which control can be applied and a food safety hazard can be prevented, eliminated or reduced to acceptable levels. All critical points which are useful for ensuring compliance with the hygiene requirements of this Notification must be identified. For the purpose of identifying these critical points, Appendix-I of this Annexure shall apply.

2.1 The critical points are specific to each establishment depending on the raw materials, its uses and on its manufacturing process, structures and equipments, end products and monitoring system.

3. "Monitoring and checking such critical points" includes all those of observations / and / or measurements necessary to ensure that critical points are kept under control. Monitoring and checking critical control point does not include verifying that end products conform with the standards laid down in this notification. For the purpose of introducing and implementing monitoring and checking Appendix-II of this Annexure shall apply.

4. Sampling for laboratory analysis referred to Clause 9.3 of this Notification is intended to confirm that the own checks system complies effectively with Clause 1, 2 and 3 above.

4.1 The persons responsible for the establishment must make provision for a sampling programme which though not concerning systematically every production batch / code, nevertheless allows :

(a) Validation of the own check system when first set up:

(b) If necessary, revalidation of the system in case of change to the characteristics of the product or to the manufacturing process.

(c) Verification at specific internals that all provisions are still appropriate and properly complied with.

4.2 Own checks system shall be confirmed in accordance with the provisions set out in Appendix-III of this Annexure.

5. For the approval of laboratories mentioned in Clause 9.3 of this Notification, the competent authority shall take into account the requirements of CN 45001 / ISO guide 25/ NABL, Criteria standards or the equivalent requirements. However, for the approval of establishments internal laboratories the competent authority may base on less restrictive principles.

6. In order to keep a "Written record" or record registered in an indelible fashion referred to in the Clause 9.4 of this Notification, the persons responsible for the establishment must document all information relating to the implementation of own-checks and their verification.

6.1 The documentation referred to at (6) above must include the following 2 types of information to be kept for submission to the competent authority.

(a) A detailed and comprehensive document including :

- description of the product;
- description of the manufacturing process indicating critical points:
- for each critical point, identified hazards assessment of risks and control measures.
- Procedures for monitoring and checking at each such critical point with identification of critical limits for parameters that need to be controlled and corrective action to be taken in the case of loss of control :
- Procedures for verification and review.

(b) Records of observations and / or measurements referred to at (3) above, the result of verification referred to in (4) above report and written accounts of decisions relating to corrective action when taken. An appropriate document management system should be provided for easy retrieval of all documents relating to an identified production batch / code.

7. The competent authorities shall ensure appropriate training of inspection staff authorised to perform officials checks to allow them to assess own-checks system set up by the persons responsible for the establishment on the basis of documents submitted.

GENERAL PRINCIPLES

It is recommended that a model of logical approach be followed, of which the following principles form the essential components :

- identification of hazards, analysis of risks and determination of measures necessary to control them;
- identification of critical points;
- establishment of critical limit for each critical point;
- establishment of corrective action to be taken when necessary;
- establishment of monitoring and checking procedures;
- establishment of verification and review procedures;
- establishment of documentation concerning all procedures and records.

Such a model, or the principles on which it is based, should be used with the flexibility appropriate to each situation.

APPENDIX I

IDENTIFICATION OF CRITICAL POINTS

It is recommended to proceed to the following activities in sequence.

1. Assembly of a multidisciplinary team – This team, which involves all parts of the enterprises concerned with the product, needs to include the whole range of specific knowledge and expertise appropriate to the product under consideration, its production (manufacture, storage, and distribution), its consumption and the associated potential hazards.

Where necessary, the team will be assisted by specialists, who will help it to solve its difficulties as regards assessment and control of critical points,

The team may consist of :

- a quality control specialist who understands the biological, chemical or physical hazards connected with a particular product group;
- a production specialist who has responsibility for, or is closely involved with, the technical process of manufacturing the product under study;
- A technician who has a working knowledge of the hygiene and operation of the process plant and equipment.
- Any other person with specialist knowledge of microbiology, hygiene and food technology.

One person may fulfil several of these roles, provided all relevant information is available to the team and is used to ensure that the own-checks system developed is reliable. Where expertise is not available in the establishment, advice should be obtained from other sources (consultancy, guides of good manufacturing practices, etc)

2. Description of the product.

The end product should be described in terms of :

- Composition (.e.g raw materials, ingredient, additives, etc);
- structure and physico-chemical characteristics (e.g solid, liquid, gas, emulsion, AW, Ph. etc);
- Processing (e.g heating, freezing, drying, salting smoking etc. and to what extent)
- Packaging (e.g hermetic, vaccum, modified atmosphere);
- storage and distribution conditions;
- required shelf life (e.g sell by date and best before date)

instructions for use;

- any microbiological or chemical criteria applicable.

3. Identification of intended use- The multidisciplinary team should also define the normal or expected use of the product by the customer and the consumer target groups for which the product is intended. In specific cases, the suitability of the product for particular group of consumers, such as institutional caterers, travellers, etc. and for vulnerable group of the population may have to be considered.

4. Construction of a flow diagram (Description of manufacturing process)- Whatever the format chosen, all steps involved in the process, including delays during or between steps, from receiving-the-raw materials to placing the end product on the market, through preparation, processing packaging, storage and distribution, should be studied in sequence and presented in a detailed flow diagram with sufficient technical date.

Type of data may include but are not limited to:

- Plan of working premises and ancillary premises;
- equipment layout and characteristics;
- sequence of all process steps (including the incorporation of raw materials ingredients, or additives and delays during or between steps);
- Technical parameters of operations (in particular time and temperature, including delays);
- flow of products (including potential cross-contamination);
- segregation of clean and dirty areas (or high / low risk areas);
- cleaning and disinfection procedures;
- hygienic environment of the establishment;
- personnel routes and hygiene practices;
- product storage and distribution conditions.

5. On-site confirmation of flow diagram – After the flow diagram has been drawn up, the multidisciplinary team should confirm it on site during operating hours. Any observed deviation must result in an amendment of the original flow diagram to make it accurate.

6. Listing of hazards and control measures- Using the confirmed flow diagram as a guide, the team should:

6.1 List of potential biological, chemical or physical hazards that may be reasonably expected to occur at each process step (including acquisition and storage of raw materials and ingredients and delays during manufacture).

A hazard is a potential to cause harm to health and is anything covered by the hygiene objectives of this notification. Specifically, it can be any of the following :

- unacceptable contamination (or recontamination) of a biological (micro organisms, parasites), chemical or physical nature of raw materials, intermediate products or final products.
- unacceptable survival or multiplication of pathogenic micro-organisms and unacceptable generation of chemicals in intermediate products, final products, production line or line environment.
- unacceptable production or persistence of toxins or other undesirable products of microbial metabolism.

For inclusion in the list, hazards, must be of a nature such that their elimination or reduction to acceptable levels is essential to the production of safe food.

6.2 Consider and describe what control measures, if any, exist which can be applied for each hazard.- Control measures are those actions and activities that can be used to prevent hazards, eliminate those or reduce their impact or occurrence to acceptable levels.

More than one control measure may be required to control an identified hazard and more than one hazard may be controlled by one control measure. For instance, pesteurization or controlled heat treatment may provide sufficient assurance of reduction of reduction of the level of both solmonells and listeries. Control measures need to be supported by detailed procedures and specifications to ensure their effective implementation. For instance, detailed cleaning schedules precise heat treatment specifications, maximum concentrations of preservatives used in compliance with the applicable rules on additives of the importing countries.

7. Methods for identification of critical points- the identification of a critical point for the control of a hazard requires a logical approach. Such an approach can be facilitated by the use of the following decision tree (other :methods can be used by the team, according to their knowledge and experience).

Decision tree for the identification of critical points.- Answer each question in sequence, at each step and for each identified hazard.

QUESTION 1 :

Are Control measures in place of the hazard?

|

Yes No Modify step, process

Is control at this for product safety? Yes

No STOP (*)

Question 2

Does that step eliminate or reduce the hazard to an acceptable level?

No Yes

Question 3

Could contamination occur at, or hazard increase to an unacceptable level ?

Yes No STOP (*)

Question 4

Will a subsequent step eliminate or reduce the Hazard to an acceptable level?

Yes STOP (*) No (Critical point)

* The stop is not a critical point, Proceed to next step.

For the application of the decision tree, each process step identified in the flow diagram should be considered in sequence. At each step, the decision tree must be applied to each hazard that may be reasonably expected to occur or be introduced and each control measure identified.

Application of the decision tree should be flexible and requires common sense, having consideration for the whole manufacturing process in order to avoid, whenever possible, unnecessary critical points.

8. Action to be taken following identification of a critical point - The identification of critical points has two consequences for the multidisciplinary team which should then :

- Ensure that appropriate control measures are effectively designed and implemented. In particular, if a hazard has been identified at a step where control is necessary for product safety and no control measure exists at that step, or at any other, then the product or process should be modified at that step, or at an earlier or later stage, to include a control measure;
- establish and implement a monitoring and checking system at each critical point.

APPENDIX –II

ESTABLISHMENT AND IMPLEMENTATION OF MONITORING AND CHECKING CRITICAL POINTS

An appropriate monitoring and checking system is essential to ensure the effective control of each critical point. To develop such a system, it is recommended to proceed to the following activities :-

1. Establishment of critical limits for each control measure associated with each critical point- Each control measure associated with a critical point should give rise to the specification of critical limits. These critical limits correspond to the extreme values acceptable with regard to product safety. They separate acceptability from unacceptability. They are set for observable or measurable parameters which can readily demonstrate that the critical point is under control; they should be based on substantiated evidence that chosen values will result in process control.

Examples of such, parameters include temperature, time pH, moisture level, additive, preservative or salt level, sensory parameters such as visual appearance or texture etc.

In some cases, to reduce the risk of exceeding a critical limit due to process variations, it may be necessary to specify more stringent levels (i.e target levels) to assure that critical limits are observed.

Critical limits may be derived from a variety of sources.

When not taken from regulatory standards (.e.g frozen storage temperature) or from existing and validated guides of good manufacturing practices, the team should ascertain their validity relative to the control of identified hazard and critical points.

2. Establishment of a monitoring and checking system for each critical point – An essential part of own-checks is a programme of observations or measurements performed at each critical point to ensure compliance with specify critical limits. The programme should describe the methods, the frequency of observations or measurement and the recording procedure.

Observations or measurements must be able to detect loss of control of critical points and provide information in time for corrective action to be taken.

Observations or measurements may be made preferably continuously. When observations or measurements are not continuous, it is necessary to establish a frequency of observations or measurements which provides reliable information.

The programme of observations or measurement should properly identify for each critical point.

- who is to perform monitoring and checking,
- when monitoring and checking is performed,

- how monitoring and checking is performed.

3. Establishment of a corrective action plan Observations or measurements may indicate:

- that the parameter monitored tends to deviate from its specified critical limits, indicating a trend toward loss of control. Appropriate corrective action to maintain control must be taken before the occurrence of hazard.
- That the parameter monitored has deviated from its specified critical limits indicating a loss of control. It is necessary to take appropriate corrective action to regain control. Corrective action has to be planned in advance by the multidisciplinary team, for each critical point, so that it can be taken without hesitation when a deviation is observed.

Such corrective action should include:

- proper identification of the person(s) responsible for the implementation of the corrective action,
- description of means and action required to correct the observed deviation,
- action to be taken with regard to products that have been manufactured during the period when the process was out of control.
- written record of measures taken.

APPENDIX-III

VERIFICATION OF OWN-CHECKS SYSTEM.

Own checks system verification is necessary to ensure that they are working effectively. The multidisciplinary team should specify the methods and procedures to be used. Usable method may include in particular random sampling and analysis, reinforced analysis or tests at selected critical points intensified analysis of intermediate or final products surveys on actual condition during storage, distribution and sale and on actual use of the product. Verification procedures may include inspection of operations, validation of critical limits, review of deviations, corrective action and measures taken with regard to the product, audits of the own-checks system and its records.

Verification should provide for confirmation of the suitability of the own-checks system established and ensure, afterwards, with an appropriate frequency, that the provisions laid down are still being properly applied.

In addition, it is necessary to revive the system to ensure that it is (or will be) still valid in case of change. Examples of change include:

- change in raw material or in product, processing conditions (factory layout and environment, process equipment, cleaning and disinfection programme),
- change in packaging , storage or distribution conditions,
- change in consumer use,
- receipt of any information on a new hazard associated with the product.

Where necessary, such a review must result in the amendment of the provisions laid down.

Any change to the own-checks system arising should be fully incorporated into the documentation and record-keeping system in order to ensure that accurate up-to-date information is available.

Where criteria are specified in regulations, such criteria are to be used as reference values for the verification process.

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