

**Government of the Union of Myanmar**  
**Ministry of Livestock and Fisheries**  
**DEPARTMENT OF FISHERIES**

**DIRECTIVE No. (7/96)**

November 6, 1996

In exercise of the powers conferred by section 23 of the Myanmar Marine Fisheries Law 1990, the Director General of the Department of Fisheries issues the following Directive for Structural Requirements for Fisheries Product Establishments.

**STRUCTURAL REQUIREMENTS FOR FISHERIES PRODUCT  
ESTABLISHMENTS**

*Division I - Building, facilities and location*

**Location**

- 1.1 A registered establishment must be located in a suitable area which is free from :
- (a) objectionable odours; and
  - (b) smoke; and
  - (c) dust; and
  - (d) other contaminants; and
  - (e) flooding.

**Immediate surrounds of registered establishments**

- 2.1 Areas immediately surrounding buildings, roads, pathways and other areas serving a registered establishment must be suitably paved, graded, grassed, landscaped or otherwise treated and kept clean and tidy to avoid the risk of dust, pests or other objectionable contaminants entering food handling and storage areas.
- 2.2 There must be adequate drainage of the surrounds and provision must be made to allow for cleaning of surrounds.
- 2.3 Where vehicles are cleaned on an establishment, a paved and drained area must be provided for the purpose.

### **Buildings and facilities**

- 3.1 Buildings and facilities must be of sound construction and maintained in good repair.
- 3.2 All construction materials must be such that they do not transmit any undesirable substances to the food.
- 3.3 Adequate working space must be provided to allow for satisfactory performance of all operations connected with the preparation of processed fisheries products.
- 3.4 The design of buildings and facilities must be such as to permit easy and adequate cleaning and to facilitate hygienic preparation of processed fisheries products.
- 3.5 Buildings and facilities must be designed and maintained to prevent the entrance and harbouring of pests and the entry of contaminants.
- 3.6 Buildings and facilities must be designed to provide separation, by partition, location or other effective means, between those operations, including waste disposal, which may cause cross-contamination of processed fisheries products.
- 3.7 Laboratories checking for pathogenic micro-organisms must be separated from food handling areas enough to prevent contamination of food in the handling area.
- 3.8 Buildings and facilities must be designed to facilitate hygienic operations, by means of a regulated flow of ingredients, food, packing and waste products in the preparation process, from the arrival of the raw materials at the premises through to the finished processed fisheries products.

### ***Division II - Food handling areas***

#### **Floors**

- 4.1 Floors (including enclosed processing area on vessels) must be:
  - (a) Water-proof; and
  - (b) non-absorbent; and
  - (c) without crevices; and

- (d) washable and of non-slip materials; and
- (e) easy to clean and disinfect.

### **Floor Drains**

- 5.1 In any area which involves a "Wet" operation:
  - (a) Floors must slope sufficiently for liquids to drain to trapped outlets; and
  - (b) Floor drains must be provided and be adequate in size, number and location to cope with the maximum flow of water under normal working conditions.
- 5.2 All drains must:
  - (a) be effectively sealed by a water trap; and
  - (b) Where necessary, be adequately vented to the exterior of the building; and
  - (c) have adequate access for cleaning
- 5.3 Solids traps installed in conjunction with floor drains must be designed to enable adequate cleaning.
- 5.4 Floor drains must not be connected with sanitary drainage.
- 5.5 Where floor drains are connected to a stormwater drainage system, they must be designed and maintained to ensure that flooding of the premises cannot occur.
- 5.6 Any open drains must flow away from food handling areas preparing high risk processed fisheries products.

### **Internal walls**

- 6.1 Walls must:
  - (a) be constructed of water-proof, non-absorbent and washable materials; and
  - (b) have all joints sealed that might allow ingress of water, pests or contaminants; and
  - (c) be light-coloured; and
  - (d) be impact resistant or protected from impact damage (including damage by pallets, forklifts, crates); and
  - (e) be smooth and without crevices; and
  - (f) be easy to clean and disinfect.

- 6.2 In areas where "Wet" operations are carried out, angles:
- (a) between walls; and
  - (b) between walls and floors;
- must be sealed and covered to facilitate cleaning
- 6.3 Any walls or partitions that do not abut the ceiling must be capped to prevent dust accumulation.

*Note: A minimum slope of 45 degrees will meet this requirement.*

### **Ceilings**

- 7.1 Ceilings must be so designed, constructed, sealed and finished as to:
- (a) be smooth and impervious to moisture; and
  - (b) prevent the accumulation of dirt; and
  - (c) minimize condensation, mould development, and flaking; and
  - (d) be easy to clean.

### **Windows, doors, external walls and vents**

- 8.1 Windows that open are not permitted in areas where high risk processed foods is exposed, processed or packed.
- 8.2 Openable windows and vents must be fitted with insect-proof screens which are:
- (a) easily removed for cleaning; and
  - (b) kept in good repair.
- 8.3 Doors and hatches must;
- (a) have smooth, non- absorbent surfaces; and
  - (b) be close fitting; and
  - (c) be impact resistance or protected from impact damage (including damage by pallets, forklifts, crates.)
- 8.4 Doors, hatches and other openings to the outside of the building or where physical separation is required must be constructed to render the opening pest proof.

*Note: Installation of one or more of the following in the manner which effectively prevents pest entry will meet this requirement:*

- (a) strip curtains; or

- (b) *air curtains; or*
- (c) *a self closing device.*

8.5 If airlocks are installed they must be suitably designed to minimise movement of air into or between areas where food is exposed, processed or packed.

*Note: It is desirable that areas where high risk foods is handled in an exposed condition should only be accessed via an airlock.*

*Note: A low pressure airlock vented to the exterior with doors that cannot be opened simultaneously will meet these criteria.*

8.6 Any services, conveyors, chutes or the like passing through external walls must be designed, constructed and sealed so as to prevent entry of pests or dust into food handling areas.

8.7 If services, conveyors, chutes or the like pass through external walls, the gap where they pass through, if any, must be sealed against pest or dust entry.

#### **Stairs, platforms and stands**

9.1 Stairs, catwalks, stands, platforms, ladders and the like in food handling areas must be:

- (a) of a material and construction that is impervious, non-slip, non-corrodible, easy-to-clean and impact resistant; and
- (b) so situated and constructed as to prevent contaminants from falling into food or onto processing equipment.

#### **Design, construction and installation of equipment and services**

10.1 All equipments and utensils used in food handling areas or which may contact food must be:

- (a) made of materials which do not transmit odour, taste or toxic substance; and
- (b) non-absorbent; and
- (c) resistant to corrosion; and
- (d) capable of withstanding repeated cleaning and disinfection; and
- (e) smooth; and
- (f) free from pits and crevices.

- 10.2 The use of wood and other materials which cannot be adequately cleaned and disinfected is prohibited except when its use would clearly not be a source of contamination and it is use as set out in sub-clauses 11.1 to 11.5 (inclusive).
- 10.3 All equipment and utensils must be so designed and constructed as to prevent hygiene hazards and permit easy and thorough cleaning and disinfection and, where practicable, be accessible for inspection.
- 10.4 Equipment and fixtures must be installed in such a manner as to permit easy access and thorough cleaning.

*Note: Equipment installed in accordance with the following will meet this requirement:*

- (a) *where equipment or fittings are installed adjacent to a wall or other equipment:*
- (i) *the gap can be sealed to prevent the entry of moisture, dirt and pests; or*
  - (ii) *sufficient space must be left to permit cleaning;*
- (b) *where equipment stands directly on the floor, it may be installed:*
- (i) *by sealing directly to the floor to prevent entry of moisture; or*
  - (ii) *on a raised plinth coved at the junction of the floor and plinth; or*
  - (iii) *on legs with a minimum of 300 mm clearance between the underside of the equipment and the floor.*
- 10.5 Storage containers for inedible materials and waste must be:
- (a) clearly identified; and
  - (b) leak-proof; and
  - (c) constructed of suitable impervious material; at
  - (d) easy to clean, or disposable; and
  - (e) able to be closed securely if stored externally.
- 10.6 Chutes and other enclosed transport systems must be:
- (a) constructed with inspection and cleaning hatches; or
  - (b) easily dismantled for cleaning.

- 10.7 All overhead structures, services and fittings, including lighting, must be:
- (a) installed in such a manner as to avoid contamination directly or indirectly of food and raw materials by condensation or drip, and must not hamper cleaning operations; and
  - (b) insulated where appropriate and be so designed finished as to prevent the accumulation of dirt, and minimize condensation, mould development and flaking; and
  - (c) easy to clean.

#### **Use of timber**

- 11.1 Timber, except as provided in sub-clauses 11.2 and 11.3 is not permitted as a processed food contact surface or in;
- (a) processing areas; or
  - (b) ice rooms; or
  - (c) freezers, cold stores or chillers.
- 11.2 If timber is used in doors, door jambs, windows, brooms, brushes and the like in processing area, the timber must be sealed by the application of a durable, non-toxic surface coating.
- Note: Gloss enamel, epoxy or poly-urethane paint will satisfy the requirements of sub-clause 11.2*
- 11.3 Clean and sound wooden pallets are permitted for the carriage of sealed or enclosed raw material or processed food in all areas except ice rooms.
- 11.4 Wooden pallets as specified in sub-clause 11.3 and clean timber dunnage are permitted in container system units, transport vehicles and the like.

#### **Hand washing facilities**

- 12.1 Hand washing facilities must:
- (a) be provided adjacent to personnel entrances to food handling areas; and
  - (b) be in such a position that employees must pass them when returning to food handling areas; and
  - (c) provide an adequate supply of warm, or hot and cold water over a sink; and
  - (d) provide a suitable hand-cleaning preparation; and
  - (e) provide suitable and sufficient hygienic means of drying hands; and

- (f) be provided with non hand operated taps; and
- (g) be fitted with properly trapped waste pipes leading to drains.

*Note: Where paper towels are used, a sufficient number of dispensers or receptacles must be provided at each washing facility:*

- 12.2 Notices must be prominently posted near food handling area entrances directing personnel to wash their hands on entering or re-entering food handling areas.

#### **Cleaning and disinfecting facilities**

- 13.1 Adequate facilities for cleaning and disinfecting working implements and equipment must be provided where required in the establishment.
- 13.2 These facilities must be:
  - (a) constructed of corrosion resistance materials; and
  - (b) capable of being easily cleaned.

#### **Carton, wrapping material and food container stores**

- 14.1 Areas for the storage of cartons, wrapping materials and empty food containers must be dust and pest proof.
- 14.2 Areas for the storage of cartons, wrapping materials and empty food containers must be constructed to prevent undesirable physical, microbiological and bio-chemical contamination of the cartons, wrapping materials and empty food containers.
- 14.3 Storage racks must be designed to allow access for cleaning.

*Note: A space of 300 mm between the underside of the racks and the floor will meet this requirement.*

#### **Changing facilities, toilets, living areas and hand washing facilities**

- 15.1 Adequate, suitable and conveniently located changing facilities, toilets and hand washing facilities must be provided in all establishments.
- 15.2 Living quarters and change rooms must be completely separated from food handling areas and must not open directly onto these areas.
- 15.3 changing facilities must include sufficient storage for personal effects and uniforms.

- 15.4 Toilets and toilet areas must be:
- (a) completely separated from food handling areas and must not open directly onto these areas; and
  - (b) designed to ensure hygienic removal of waste matter; and
  - (c) well lit and ventilated; and
  - (d) maintained in a clean and tidy condition.
- 15.5 Toilets and toilet areas must not be used for storage of ingredients or food.
- 15.6 Hand washing facilities must be provided near toilets and must:
- (a) provide an adequate supply of warm, or hot and cold water over a sink; and
  - (b) provide a suitable hand-cleaning preparation; and
  - (c) provide suitable and sufficient hygienic means of drying hands (eg. where paper towels are used, a sufficient number of dispensers or receptacles must be provided at each washing facility); and
  - (d) be fitted with properly trapped waste pipes leading to drains.
- Note: Hand washing facilities near toilets (but not adjacent to entrances to food handling areas) do not need to be non hand operated.*
- 15.7 In areas preparing high risk processed food, facilities for hand disinfection must be provided with hand washing facilities.
- 15.8 Notices must be prominently posted in toilets directing personnel to wash their hands on entering or re-entering food handling areas.

### *Division III - Services*

#### **Effluent and waste disposal**

- 16.1 Establishments must have an efficient effluent and waste disposal system which must at all times be maintained in good order and repair.
- 16.2 All effluent lines (including sewer systems) must be large enough to carry peak loads and must be so constructed as to avoid contamination of potable water supplies.

### **Facilities for storage of waste and inedible material**

- 17.1 Facilities must be provided for the separation and storage of waste, and inedible material prior to removal from the establishment.
- 17.2 These facilities must be designed to prevent access to waste or inedible material by pests, and to avoid contamination of food, potable water, equipment, buildings or roadways on the premises.

### **Lighting**

- 18.1 Adequate natural, or artificial lighting must be provided throughout the establishment.
- 18.2 Lighting intensity must not be less than:
  - (a) 540 lux (50 foot candles) at all inspection points; and
  - (b) 220 lux (20 foot candles) in work room; and
  - (c) 110 lux (10 foot candles) in other areas.
- 18.3 Lights and light fixture suspended over food in any stage of processing or exposed packaging material must be of a safety type and protected to prevent contamination of food in case breakage.

### **Ventilation**

- 19.1 Adequate ventilation must be provided to remove contaminated air, and prevent excessive build up of:
  - (a) heat; and
  - (b) steam; and
  - (c) condensation; and
  - (d) dust; and
  - (e) other undesirable atmospheric conditions.

### **Water supply**

- 20.1 An ample supply of water must be available as appropriate throughout an establishment:
  - (a) under adequate pressure; and
  - (b) at a suitable temperature; and
  - (c) suitably distributed; and
  - (d) if used in a food handling area, meet the requirements of sub-clause 21.1 of this directive.

- 20.2 If water is chlorinated within the establishment, records of the residual chlorine level must be maintained.
- 20.3 Non-potable water may be used for steam production, refrigeration, fire control and other similar purposes not connected with food and must be carried in completely separate lines, identifiable, preferably by colour, and with no cross-connection with, or back-spoilage into the system carrying potable water.
- 20.4 There must be no cross connection between potable and non potable water reticulation systems.
- 20.5 Ice must be made from potable water and must be manufactured, handled and stored so as to protect it from contamination.
- 20.6 All storage tanks, cooling towers, pipelines or the like utilised in handling the water must be constructed in such manner as to facilitate inspection and cleaning.
- 20.7 All water storage tanks must be effectively covered to prevent to entry of pests and potential contaminants.

**Potable water standard**

- 21.1 Water used in food handling areas, or water otherwise required to be potable, must:
  - (a) not contain any *Escherichia coli* per 100 milliliters; and
  - (b) not contain more than 10 coliform organisms per 100 milliliters; and
  - (c) not contain 1 to 10 coliform organisms in 100 milliliters in any two consecutive samples; and
  - (d) for any consecutive 12 months period, not contain 1 to 10 coliform organisms in 100 milliliters and any three samples.
- 21.2 If water comes in direct contact with processed food, the water must be sampled and examined not less than monthly during periods of operation. The water must be:
  - (a) sampled and examined by Government laboratory.
- 21.3 Record of water testing results must be maintained by the company.

- 21.4 Sampling of water must be carried out according to bacteriological examination of drinking water supplies 1982 (Report on Public Health & Medical Subjects No. 71 London.)
- 21.5 Bacteriological analysis of water for the present of E. coli must be carried out according to section 7.7 Bacteriological examination of drinking water supplies 1982 (Report on Public Health & Medical Subjects No. 71 London.)
- 21.6 Bacteriological analysis of water for the present of coliform must be carried out according to section. 7.7 Bacteriological examination of drinking water supplies 1982 (Report on Public Health & Medical Subjects No. 71 London.)
- 21.7 Water used in food handling areas, or water otherwise required to be potable, must be chemically potable according to the International Drinking Water Standard (WHO).
  
- 22.1 Any licence-holder for the processing of fish and fishery products shall abide by this Directive as one of the conditions of the licence.
- 22.2 On violation of the any terms or conditions of the Directive, criminal action may be taken under Section 45 of the Myanma Marine Fisheries Law and the licence-holder may be liable to suspension, revocation, termination and cancellation of the licence under Section 24 of the said Law.

Sd xx Soe Win

Director General  
Department of Fisheries