

CONDITIONS OF LICENSING FOR MEAT, FISH, EGG PROCESSING ESTABLISHMENTS AND COLD STORES

WHOLESOME MEAT AND FISH ACT. Wholesome Meat and Fish (Processing Establishments and Cold Stores) Rules
SALE OF FOOD ACT. Food Regulations

A. Structure

1. The meat, fish or egg processing establishment must be located away from objectionable odours, smoke, dust and other contaminants.
2. The location of the processing establishments must be sited in industrial areas designated as food zones or in areas with compatible industrial uses. No non-food trades or trades that may contaminate food products are to be located within the same food building. No toxic or other hazardous substances will be stored within the same building or premises.
3. The establishment buildings, including their structures, rooms, and compartments must be of sound construction, kept in good repair, and be of sufficient size to allow for processing, handling, and storage of products in a manner that does not result in product adulteration or the creation of insanitary conditions.
4. The establishment must be designed in a manner so as to allow one directional flow to prevent cross-contamination between raw and finished products.
5. All ceilings must be so constructed and finished as to prevent condensation, leakage, and formation of mould and be easily cleaned.
6. The premises should be painted with durable light coloured paint that is easy to clean.
7. Walls, floors, ceilings, partitions, doors must be constructed of smooth, light-colored and durable materials impervious to moisture and be cleaned and sanitised as necessary to prevent adulteration.
8. Walls, floors, ceilings, doors, windows, and other outside openings must be constructed and openings meshed to prevent the entrance of vermin, such as flies, rats and mice.
9. Rooms or compartments in which edible product is processed, handled, or stored must be separate and distinct from rooms or compartments in which inedible product is processed, handled, or stored, to the extent necessary to prevent product adulteration and the creation of insanitary conditions.
10. There shall be clear and physical separation of different operations and departments.
11. Floors must be non-slip, evenly graded to prevent water stagnation and drained off to trapped outlets protected by a grille.
12. All floor and wall junctures should be covered with a radius of at least 75mm. Wall to wall junctions should be covered with a radius of at least 25mm.
13. Adequate disinfecting facilities such as foot-bath must be provided at the entrance to the processing areas.
14. All food contact surfaces in meat or fish handling areas must be non-toxic, smooth, impervious and in sound condition.

15. Hand wash basins equipped with non-hand operated taps, liquid detergent and disposable hand towels should be strategically located in processing rooms.
16. Proper signages shall be provided for all rooms.
17. For multi-storey food buildings, separate hoists/lifts must be provided for the transportation of raw materials, finished products and waste materials to prevent cross-contamination.

B. Chillers & Freezers

1. Adequate built-in chiller(s) and freezer(s) must be provided for storage of meat or fish and their products.
2. Raw fish/seafood and marine products must not be stored in the same chiller or freezer for meat, unless the chiller or freezer is large enough to accommodate both products without posing cross-contamination problem or are properly demarcated and segregated.
3. The temperature of chillers must be maintained at between 0 °C – 4 °C and that of freezers must be –18 °C or below. All chillers & freezers must be fitted with recording thermometers, and temperature records up to three months period must be available for inspection.
4. Chillers & freezers must not be over loaded beyond their designated capacity.
5. Adequate racks made of material impervious to moisture must be erected inside chillers & freezers to allow proper storage of meat/fish and their products and in a manner that allows proper circulation of cold air around the products.
6. Raw unprocessed and semi-processed meat/fish and their products must also be stored separately from the finished products. The meat/fish products must be placed in carton boxes or covered containers inside chillers or freezers.
7. Chillers and freezers must be maintained in a sanitary condition at all times and there must be no accumulation of ice formation in the chambers.
8. Chest freezer, refrigerators, reefer container or refrigerated truck shall not be used as a permanent chiller or freezer without the permission from the licensing authority of the AVA.

C. Unboxing/Defrosting Room

1. A room must be provided between the coldroom and the processing room for unboxing and defrosting of meat/fish and their products.
2. Meat or fish and their products that are not in carton boxes must be placed on stainless steel racks or tables for defrosting.

D. Preparation/Processing Room

1. This room must be located next to the coldroom or unboxing room for meat/fish and their products. The size and facilities for this room must be adequate and appropriate for the processing.
2. The temperature of the room must be controlled at around 12 °C – 15 °C.
3. The walls must be provided with glazed tiles at least 2 metres high.
4. A knife steriliser with potable water maintained at 82 °C must be provided.

5. Adequate hand wash basins equipped with non-hand operated taps, liquid soap and disposable hand towels must be provided for workers in this room.
6. Boning and cutting rooms shall be physically separated from other rooms.
7. Adequate facilities should be provided for breaking of carcasses into primal cuts or consumer cuts in the boning/cutting rooms.
8. Rails should be high enough that the lowest part of the carcass or side is at least 300mm from the floor.

E. **Cooking/Smoking Room**

1. The cooking/smoking room must be located adjacent to the preparation/processing room to allow easy transfer of semi-processed meat or fish and their products meant for cooking or smoking. This room may not be air-conditioned.
2. Adequate ventilation with provision for the extraction of steam and smoke must be provided.
3. The walls must be provided with glazed tiles of at least 2 metres high.
4. Hand wash basins equipped with non-hand operated taps, liquid soap and disposable hand towels must be provided for workers in this room.
5. The area where cooking is to be carried out must be embedded with insulated material prior to lining with stainless steel.
6. The use of fuel in cooking or other forms of heat treatment must not cause any contamination to the food products.

F. **Finished Products Packaging/Labelling Room**

1. This room must ideally be located in between the cooking/smoking room and the finished product store room/cold room or the delivery area.
2. The room temperature must be controlled at around 12°C -15 °C.
3. Only wrapping materials and carton boxes required for that day's use are permitted to be kept in this room.
4. All food packaging must be carried out on stainless steel tables.
5. Only new and clean wrapping and packaging materials must be used.

G. **Storage Room for ingredients**

1. An insect/vermin proof room must be provided for the storage of spices/ingredients used for the preparation of food.
2. Proper non-wooden racks must be built for storing of spices/ingredients. All spices/ingredients should be properly labelled, and adequately rotated to prevent deterioration.

H. **Storage rooms for non-food items**

1. A store room for wrapping/packaging materials must be provided.
2. Chemicals, detergent and any harmful material must be properly labelled and stored in a separate store room. Only approved chemicals must be used & stored in the establishment.
3. The room must be located away from any room where meat, fish or egg and their products or edible products are handled.

I. **Equipment washing**

1. An area or a room must be provided for the washing of utensils and equipment.
2. Only approved chemicals must be used for the cleaning of equipment and utensils.
3. Hot water must be provided in this room for the cleaning of greasy equipment, utensils and the floor.

J. **Changing rooms and toilets**

1. Changing rooms and toilets must be sufficient in number; ample in size, conveniently located, and maintained in a sanitary condition and in good repair at all times to ensure cleanliness of all persons handling any product. They must be separate from the rooms and compartments in which products are processed, stored, or handled.
2. Toilets must not open directly into any place where food products are prepared, stored or handled.
3. Changing rooms must be separate and away from the toilets.
4. Separate changing rooms with lockers must be provided for use by male and female workers.
5. Hand wash basins equipped with non-hand operated taps, liquid detergent and disposable hand towels must be provided adjacent to the toilets.
6. The number of water closets required should follow close to the following guideline:

Number of employees	Minimum number of water closets
1 to 15	1
16 to 35	2
36 to 55	3
56 to 80	4
81 to 110	5
111 to 150	6
Over 150	1 additional fixture for each additional 40 employees

K. **Welfare room**

1. A staff welfare room must be provided for the workers to take their meals, rest and for recreational purposes.
2. The room must be separated and away from the rooms and areas in which products are processed, handled and stored.

L. **Handling of Food Products**

1. All chilled/frozen food products delivered to, or collected from the establishment are to be transported in refrigerated vehicles. If the chilled/frozen food products are in smaller quantities, they may be delivered or collected in insulated containers.
 - For chilled food products, the temperature must be maintained at 4°C or below and with a core temperature not exceeding 7°C during transportation.
 - For frozen food products, the temperature must be maintained at -18°C or below and with a core temperature not exceeding -12°C during transportation.
2. Temperature recorders must be available on all refrigerated vehicles.
3. Vehicles used for the delivery of finished products must be maintained in a sanitary and hygienic condition at all times.
4. Only covered clean containers made of material impervious to moisture such as stainless steel or plastic must be used to keep cooked un-refrigerated products (such as roasted meat) during transportation.
5. Non-refrigerated finished products must be delivered in covered vehicles.
6. No food products must be kept outside the factory premises except at the time of loading into vehicles for delivery.
7. All food products, cooked or uncooked in carton boxes, containers, basins, trays, etc whether in chillers, freezers or in any processing area must not be placed directly on the floor. They must be placed on a pallet, shelf or rack.
8. First-In-First-Out rotation of food products must be practised at all times.

M. **Supply of Water, Ice and Steam**

1. An ample supply of cold and hot potable water and/or clean water under adequate pressure must be provided where appropriate.
2. Ice must be manufactured using potable water or clean water and protected from contamination.
3. For operations which require steam, an adequate supply at sufficient pressure must be maintained
4. Non-potable water lines must be clearly identified and separated from potable water to avoid cross-contamination.

N. **Ventilation**

1. Ventilation adequate to control odors, vapors, and condensation to the extent necessary to prevent adulteration of product and the creation of insanitary condition must be provided.
2. Ventilation hood systems and devices must be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings
3. Heating, ventilating, and air conditioning systems must be designed and installed so that make-up air intake and exhaust vents do not cause contamination of food, food-contact surfaces, equipment, or utensils.
4. Over heating must be avoided and the premises must be comfortable for the workers to work in.

O. **Equipment and Utensils**

1. Equipment and utensils must be designed and constructed to be durable and to retain their characteristic qualities under normal use conditions.
2. Equipment and utensils used for processing or otherwise handling edible product or ingredients must be of such material and construction to facilitate thorough cleaning and to ensure that their use will not cause the adulteration of product during processing, handling, or storage. Equipment and utensils must be maintained in sanitary condition so as not to adulterate the product.
3. Only food grade lubricants must be used for machines/equipment. Materials that are used in the construction of utensils, equipment and any food-contact surfaces, may not allow the migration of deleterious substances or impart colors, odors, or tastes to food and under normal use conditions must be:
 - a) Safe and non-toxic;
 - b) Durable, corrosion-resistant, and non-absorbent;
 - c) Sufficient in weight and thickness to withstand repeated washing;
 - d) Finished to have a smooth, light-coloured, easily cleanable surface; and
 - e) Resistant to pitting, chipping, cracking, scratching, scoring, distortion, and decomposition.
4. Wood and wood wicker must not be used as a food-contact surface.
5. Equipment and utensils must not be used interchangeably for raw products and finished products.
6. Equipment and utensils used for waste, inedible or condemned materials must be clearly identified and not be used for edible products or taken into edible areas.

P. **Lighting**

1. Lighting of good quality and sufficient intensity to ensure that sanitary conditions are maintained and that product is not adulterated must be provided in areas where food is processed, handled, stored, or examined; where equipment and utensils are cleaned; and in hand-washing areas, dressing and locker rooms, and toilets. All light fittings must be covered with non-shattering material.
2. At least 110 lux (10 foot candles) at a distance of 75cm (30 inches) above the floor, in walk-in refrigeration units and dry food storage areas and in other areas and rooms during periods of cleaning.
3. At least 220 lux (20 foot candles):
 - a) Inside equipment such as reach-in and under-counter refrigerators;
 - b) At a distance of 75 cm (30 inches) above the floor in areas used for hand washing, ware washing, and equipment and utensil storage, and in toilet rooms; and
4. At least 540 lux (50 foot candles) at the surface where a food employee is working with food or working with utensils or equipment such as knives, slicers, grinders, or saws where employee safety is a factor.

Q. **Disposal of waste**

1. Sewage must be disposed into a sewage system separate from all other drainage lines or disposed of through other means sufficient to prevent backup of sewage into areas where product is processed, handled, or stored.
2. Sufficient leak-proof receptacles with covers that are clearly identified must be provided for trimmings and waste.

3. Trimmings and waste must be disposed of regularly during and after processing and the receptacles must be washed and disinfected before re-use.
4. Effluent or sewage lines must not pass directly over or through the production areas unless they are adequately controlled.

R. **Hygiene of Premises**

1. The whole premises including the walls, floors, working tables, utensils and equipment must be kept in good repair and in a clean and hygienic condition at all times.
2. Good house keeping must be observed at all times.
3. Workrooms must be washed and cleaned daily and disinfected whenever necessary.
4. All equipment, tables, utensils and protective clothing must be cleaned before operations and must be cleaned at regular intervals during operation. They must be cleaned and disinfected whenever they become contaminated and at the end of the working day.
5. The premises must be free from vermin, their eggs and faeces and the build-up of fish slime, blood, scales, guts and waste materials.
6. No portion of the factory where meat or fish and their products are processed must be used as living quarters or for refreshing purposes, and workers' personal belongings must not be kept in any processing area.

S. **Personnel Hygiene**

1. Cleanliness - All persons working in contact with product, food-contact surfaces, and product-packaging materials must adhere to hygienic practices while on duty to prevent adulteration of product.
2. Clothing - Aprons, frocks, and other outer clothing worn by persons who handle product must be of material that is disposable or readily cleaned. Clean garments, head covers and boots must be worn at the start of each working day and garments must be changed during the day as often as necessary to prevent contamination or adulteration of product.
3. Disease control - Any person who has or appears to have an infectious disease, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination must be excluded from any operations which could result in product adulteration until the condition is corrected.
4. Food personnel must clean their hands using non-hand operated washing facility and may not clean their hands in a sink used for food preparation, or in a service sink or a curbed cleaning facility used for the disposal of mop water and similar liquid waste.
5. Food personnel must keep their fingernails trimmed, filed, and maintained so the edges and surfaces are cleanable and not rough.
6. While preparing food, food personnel must not wear jewellery on their arms and hands.
7. Workers handling cooked or finished products must wear disposable gloves, head covers and masks at all times during work.
8. Protective clothing must be deposited in a suitable place where they will not contaminate any meat or fish and their products.

9. Smoking, chewing of gum or tobacco, littering and other undesirable behaviour in the premises is prohibited.
10. Hands must be washed before commencing work, after using toilets, when contaminated, and as frequently as necessary.

T. **Medical Examination of Food Handlers**

1. All workers handling exposed food and/or who clean food equipment, utensils, etc, are required to be examined and found medically healthy by a medical practitioner registered under the Medical Registration Act before he/she starts working in the company. Thereafter, he/she must undergo similar examination every year and when clinically indicated. The medical evaluation will focus on history and/or evidence of potential sources of food-borne gastrointestinal illness, infectious dermatological and respiratory conditions.
2. No person, known or suspected to be suffering from, or to be a carrier of, a disease or while afflicted, for example, with infected wounds, skin infections, sores or with diarrhoea, shall be permitted to work in any food handling area.

U. **Pest Control**

1. The establishment must have in place a pest management program to prevent the harbourage & breeding of pests on the grounds and within establishment facilities.
2. Pest control substances used must be safe and effective under the conditions of use and not be applied or stored in a manner that will result in the adulteration of food product.
3. Effective means must be provided to exclude vermin, e.g. rats, mice, cockroaches and flies from entry and harbouring in the premises and any delivery vehicle.
4. The service of a professional pest control company must be required if the pest control carried out by the processing establishment or cold store is found not effective.
5. No pets including birds and animals must be kept within or around the premises.

V. **Authorised Officer's Inspection Room**

1. An inspection room exclusively for use by the authorised officer* carrying out inspection of imported meat products must be provided.
2. This must be provided in a suitable, separate air-conditioned room properly equipped or with access to a lockable desk and locker.
3. Suitable facilities for inspection of meat shall be provided and these facilities shall include a knife sterilizer with temperature maintained at 82° C, a stainless steel table, hand washing basin provided with non-hand operated tap, liquid soap and disposable paper towels.
4. This room shall not be used for any other purposes.

W. **HACCP (Hazard Analysis And Critical Control Point) or Similar Food Safety Management Systems**

1. All meat, fish and egg processing establishments should implement HACCP or similar food safety management system to control all food hazards in the manufacturing processes to ensure the production of safe and wholesome food for human consumption.

X. **Appointment of Hygiene Officer & Personnel Training**

1. A food hygiene officer must be appointed to oversee the hygiene and cleanliness of the food processing establishment.
2. Food handlers must have the necessary knowledge and skill to enable them to handle meat, fish and/or egg products hygienically.
3. All processing establishments should ensure that their food handlers have received adequate and appropriate training in the design and proper application of a HACCP system and process control.

Y. **Product labeling**

1. Every pack of meat, fish or egg product must be clearly marked and date labelled to ensure traceability of producer and the lot number.
2. There must be proper documentation of the establishment's Sanitary Standard Operating Procedures (SSOPs). A proper recall system or program must be in place to remove or correct marketed consumer products that violate the law.

Z. **Additional Requirements for Egg Processing Establishment**

1. All egg products must be pasteurised before use or otherwise treated during processing to destroy harmful microorganisms.

Z1. **Restricted Use of Premises**

1. The establishment may not be used for any other purpose or activity except with the approval of AVA.
2. All stages of processing must be confined within the factory premises. At no time must any meat or fish products be taken out of the factory premises to another premises for further processing unless with the prior approval of AVA.

Z2. **Submission of Documents**

1. The licensee of a meat or fish or egg establishment shall furnish a monthly report on the production quantity to AVA by the 1st week of the subsequent month.

*Authorised officer refers to an officer authorised under the Wholesome Meat & Fish Act

*The Director-General may alter, delete or add any of the conditions of licensing as and when he deems necessary

updated on Jan 2011