

**പതിനാലാം കേരള നിയമസഭ**  
**പത്താം സമ്മേളനം**

നക്ഷത്ര ചിഹ്നമിട്ട ചോദ്യം നം 306	14/03/2018 ൽ മറുപടി നല്കേണ്ടത്.
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**ഭക്ഷ്യസുരക്ഷ നിയമം**

	ചോദ്യം		ഉത്തരം
	<b>ശ്രീ.സി. കെ. ശശീന്ദ്രൻ</b> <b>ശ്രീമതി.വീണാ ജോർജ്ജ്</b> <b>ശ്രീ.മുരളി പെരുമ്പള്ളി</b> <b>ശ്രീ.കെ. ദാസൻ</b>		<b>ശ്രീമതി .കെ.കെ. ശൈലജ ടീച്ചർ</b> (ആരോഗ്യവും സാമൂഹ്യ നീതിയും വകുപ്പ് മന്ത്രി)
എ)	ഭക്ഷ്യസുരക്ഷ നിയമപ്രകാരം (ഫുഡ് സേഫ്റ്റിആക്ട്), ആഹാര പദാർത്ഥങ്ങളുടെ ഉത്പാദന - സംഭരണ - വിതരണ രംഗത്ത് പ്രവർത്തിക്കുന്നവരിൽ പന്ത്രണ്ട് ലക്ഷം രൂപയ്ക്ക് മേൽ വാർഷിക വിറ്റുവരവുള്ളവർ ലൈസൻസും മറ്റുള്ളവർ രജിസ്ട്രേഷനും നേടിയിരിക്കണമെന്ന വ്യവസ്ഥ കർശനമായി പാലിച്ചിട്ടുണ്ടോ എന്ന് പരിശോധന നടത്താറുണ്ടോ;	എ)	ഭക്ഷ്യസുരക്ഷാ നിയമപ്രകാരം ആഹാര പദാർത്ഥങ്ങളുടെ ഉത്പാദന - സംഭരണ - വിതരണ രംഗത്ത് പ്രവർത്തിക്കുന്നവരിൽ പന്ത്രണ്ട് ലക്ഷം രൂപയ്ക്ക് മേൽ വാർഷിക വിറ്റുവരവുള്ളവർ ലൈസൻസും മറ്റുള്ളവർ രജിസ്ട്രേഷനും കരസ്ഥമാക്കി മാത്രമേ ഭക്ഷ്യവ്യാപാരം നടത്താൻ പാടുള്ളൂ. എന്നാൽ ഭക്ഷ്യസുരക്ഷാ നിയമം 2011 ഓഗസ്റ്റ് മുതൽ രാജ്യത്തെതാഴെ നടപ്പാക്കി തുടങ്ങിയെങ്കിലും ലൈസൻസ്/ രജിസ്ട്രേഷൻ എടുക്കുന്ന വിഷയത്തിൽ 2016 വരെ കേന്ദ്ര സർക്കാർ ഇളവ് നൽകിയിരുന്നു. അതിനാൽ നിയമം സംസ്ഥാനത്ത് ഇപ്പോൾ കർശനമായി നടപ്പാക്കി തുടങ്ങുകയും എല്ലാ ഫുഡ് ബിസിനസ്സ് ഓപ്പറേറ്റർമാരെയും ലൈസൻസ്/ രജിസ്ട്രേഷനിലേക്ക് എത്തിക്കുന്നതിനു വേണ്ടി നോട്ടീസ് നൽകുകയും ലൈസൻസ്/രജിസ്ട്രേഷൻ മേളകൾ സംഘടിപ്പിക്കുകയും ചെയ്യുന്നു.
ബി)	ലൈസൻസോ രജിസ്ട്രേഷനോ നേടിയ സ്ഥാപനങ്ങൾ പാലിക്കേണ്ട വ്യവസ്ഥകൾ എന്തെല്ലാമാണ്; അവ പാലിക്കപ്പെടുന്നുണ്ടെന്ന് ഉറപ്പുവരുത്താൻ ഭക്ഷ്യസുരക്ഷ വകുപ്പിന് സാധ്യമാകുന്നുണ്ടോ; വിശദാംശം അറിയിക്കാമോ?	ബി)	ഫുഡ് സേഫ്റ്റി & സ്റ്റാൻഡേർഡ്സ് ലൈസൻസിംഗ്/രജിസ്ട്രേഷൻ റെഗുലേഷൻ 2011 ൽ പ്രതിപാദിച്ചിട്ടുള്ള എല്ലാ വ്യവസ്ഥകളും പാലിക്കേണ്ടതാണ്. <u>ഹോട്ടൽ/റസ്റ്റോറന്റ്/മറ്റ് ആഹാര പദാർത്ഥങ്ങൾ കൈകാര്യം ചെയ്യുന്ന സ്ഥാപനങ്ങൾ പാലിക്കേണ്ട വ്യവസ്ഥകൾ</u> <ol style="list-style-type: none"> <li>1. FSSAI ലൈസൻസ്/രജിസ്ട്രേഷൻ സ്ഥാപനത്തിൽ പ്രദർശിപ്പിച്ചിരിക്കണം</li> <li>2. സ്ഥാപനത്തിന്റെ തറ, ഭിത്തി, അടുക്കള പരിസരം എന്നിവ ശുചിയായി സൂക്ഷിക്കേണ്ടതാണ്.</li> <li>3. പ്രാണികളും മറ്റ് ജീവികളും കടക്കാത്ത വിധത്തിൽ സ്ഥാപനത്തിന്റെ സ്റ്റോർ റൂം, പ്രോസ്സസിംഗ് ഏരിയ എന്നിവ</li> </ol>

	<p>സൂക്ഷിക്കേണ്ടതാണ്.</p> <ol style="list-style-type: none"> <li>4. സ്ഥാപനത്തിൽ ഉപയോഗിക്കുന്ന പാത്രങ്ങളും മറ്റും ഭക്ഷ്യവസ്തുക്കൾ സൂക്ഷിക്കാൻ പറ്റുന്ന നിലവാരത്തിലുള്ളവ ആയിരിക്കണം</li> <li>5. സ്ഥാപനത്തിലെ വേസ്റ്റ് ബിൻ മുടിയുള്ളതായിരിക്കണം. മാലിന്യം സംസ്കരിക്കുവാൻ വേണ്ടി ഉചിതമായ നടപടികൾ സ്വീകരിക്കണം.</li> <li>6. സ്ഥാപനത്തിൽ ഉപയോഗിക്കുന്ന ജലത്തിന്റെ ഗുണനിലവാരം ആറ് മാസത്തിൽ ഒരിക്കൽ പരിശോധിച്ച് ഉറപ്പുവരുത്തേണ്ടതാണ്.</li> <li>7. ഭക്ഷ്യവസ്തുക്കൾ കൈകാര്യം ചെയ്യുന്ന ജീവനക്കാരുടെ വൈദ്യ പരിശോധന റിപ്പോർട്ട് എല്ലാ വർഷവും പുതുക്കുകയും ക്ഷേണം വഴി പകരുന്ന രോഗങ്ങൾ ഇല്ലായെന്ന് ഉറപ്പു വരുത്തേണ്ടതുമാണ്.</li> <li>8. ജീവനക്കാർ മികച്ച രീതിയിലുള്ള വ്യക്തിശുചിത്വം പാലിക്കേണ്ടതാണ്.</li> <li>9. ഭക്ഷ്യവസ്തുക്കൾ എല്ലായിപ്പോഴും മുടി സൂക്ഷിക്കേണ്ടതാണ്</li> <li>10. സന്യാഹാരങ്ങളും, മാംസാഹാരങ്ങളും ഒരൂമിച്ച് ഒരേ ഫ്രീസറിൽ സൂക്ഷിക്കുവാൻ പാടുള്ളതല്ല.</li> <li>11. ഭക്ഷ്യവസ്തുക്കളിൽ സിന്തറ്റിക് ഫുഡ് കളർ ഉപയോഗിക്കുവാൻ പാടുള്ളതല്ല.</li> </ol> <p>ഉല്പാദന, സംഭരണ, വിതരണ മേഖലകളിൽ പ്രവർത്തിക്കുന്ന മറ്റ് ഫുഡ് ബിസിനസ്സ് ഓപ്പറേറ്റർമാർ പാലിക്കേണ്ട വ്യവസ്ഥകൾ ഫുഡ് സേഫ്റ്റി &amp; ലൈസൻസിംഗ് &amp; റെഗുലേഷൻസ് റൂൾ 2.1.1(2) അനുബന്ധമായി ഇതോടൊപ്പം ഉള്ളടക്കം ചെയ്യുന്നു.</p> <p>മേൽ വ്യവസ്ഥകൾ ഉറപ്പുവരുത്തുന്നതിനു വേണ്ടി ഫുഡ് സേഫ്റ്റി ഓഫീസർമാർ നിരന്തരം പരിശോധനകൾ നടത്തുകയും വീഴ്ചകൾ ശ്രദ്ധയിൽപ്പെട്ടാൽ കോമ്പൗണ്ടിംഗ്/ അഡ്ജൂഡിക്കേഷൻ നടപടികൾക്ക് വിധേയമാക്കുകയും ചെയ്യുന്നുണ്ട്. ഗുരുതരമായ ആരോഗ്യ ഭീഷണിയുള്ള സാഹചര്യത്തിൽ ലൈസൻസ് സസ്പെൻഡ് ചെയ്ത് സ്ഥാപനം അടച്ചുപൂട്ടുന്ന നടപടികളും സ്വീകരിക്കാറുണ്ട്.</p>
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*Shreshth*

സെക്ഷൻ ഓഫീസർ

ഫുഡ് ബിസിനസ്സ് ഓപ്പറേറ്റർമാർ പാലിക്കേണ്ട വ്യവസ്ഥകൾ

LA Qs. \*306

Annexure

General Hygienic and Sanitary practices to be followed by Petty Food Business Operators applying for Registration

(See Regulation 2.1.1(2))

In case inspection of the units is directed by the Registering or Licensing Authority, the inspection should confirm that the follo

wing measures are adopted by the unit as far as possible:

**SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD MANUFACTURER/ PROCESSOR/HANDLER** The place where food is manufactured, processed or handled shall comply with the following requirements:

1. The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.
2. The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.
3. The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.
4. Floors, Ceilings and walls must be maintained in a sound condition. They should be smooth and easy to clean with no flaking paint or plaster.
5. The floor and skirted walls shall be washed as per requirement with an effective disinfectant the premises shall be kept free from all insects. No spraying shall be done during the conduct of business, but instead fly swats/ flaps should be used to kill spray flies getting into the premises. Windows, doors and other openings shall be fitted with net or screen, as appropriate to make the premise insect free The water used in the manufacturing shall be potable and if required chemical and bacteriological examination of the water shall be done at regular intervals at any recognized laboratory.
6. Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.
7. Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.
8. No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of food. (Copper or brass vessels shall have proper lining).
9. All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure freedom from growth of mould/ fungi and infestation.
10. All equipments shall be placed well away from the walls to allow proper inspection.
11. There should be efficient drainage system and there shall be adequate provisions for disposal of refuse.

12. The workers working in processing and preparation shall use clean aprons, hand gloves, and head wears.
13. Persons suffering from infectious diseases shall not be permitted to work. Any cuts or wounds shall remain covered at all time and the person should not be allowed to come in direct contact with food.
14. All food handlers shall keep their finger nails trimmed, clean and wash their hands with soap, or detergent and water before commencing work and every time after using toilet. Scratching of body parts, hair shall be avoided during food handling processes.
15. All food handlers should avoid wearing, false nails or other items or loose jewellery that might fall into food and also avoid touching their face or hair.
16. Eating, chewing, smoking, spitting and nose blowing shall be prohibited within the premises especially while handling food.
17. All articles that are stored or are intended for sale shall be fit for consumption and have proper cover to avoid contamination.
18. The vehicles used to transport foods must be maintained in good repair and kept clean.
19. Foods while in transport in packaged form or in containers shall maintain the required temperature.
20. Insecticides / disinfectants shall be kept and stored separately and away from food manufacturing / storing/ handling areas.

A. SANITARY AND HYGIENIC REQUIREMENTS FOR STREET FOOD VENDORS AND UNITS OTHER THAN MANUFACTURING/PROCESSING

1. Potential sources of contamination like rubbish, waste water, toilet facilities, open drains and stray animals shall be avoided.
2. The surfaces of the Vending carts which come in contact with food or food storage utensils shall be built of solid, rust/ corrosion resistant materials and kept in clean and good condition They shall be protected from sun, wind and dust. When not in use, food vending vans shall be kept in clean place and properly protected.
3. Rubbish bin with cover shall be provided by food stall or vending cart owners for any waste generated in the process of serving and eating by consumers.
4. Working surfaces of vending carts shall be clean, hygienic, impermeable and easy to clean (like stainless steel), and placed at least 60 to 70 cm. from above ground.
5. Sale points, tables, awnings, benches and boxes, cupboards, glass cases, etc. shall be clean and tidy.
6. Cooking utensils and crockery shall be clean and in good condition. It should not be broken/ chipped.
7. All containers shall be kept clean, washed and dried at the close of business to ensure that there is no growth of mould/ fungi and infestation.
8. Water used for cleaning, washing and preparing food shall be potable in nature.
9. Transporting of drinking water (treated water like bottled water, boiled/ filtered water through water purifier etc.) shall be in properly covered and protected containers and it shall be stored in clean and covered containers in a protected area away from dust and filth.
10. Cooking, storage and serving shall not be done in utensils of, cadmium, lead, non food grade plastic and other toxic materials.
11. Utensils shall be cleaned of debris, rinsed, scrubbed with detergent and washed under running tap water after every operation. Wiping of utensils shall be done with clean cloth. Separate cloths shall be used for wiping hands and for clearing surfaces, cloth used for floor cleaning will not be used for cleaning surfaces of tables and working areas and for wiping utensils Person cooking, handling or serving food should use hand gloves and aprons, where necessary. He shall wear head gear and cover his mouth always while at work.
12. Removing dust or crumb from plates or utensils shall be done by using cloth or wiper into dustbin.
13. The person suffering from infectious disease shall not be permitted to work.
14. All food handlers shall remain clean, wear washed clothes and keep their finger nails trimmed, clean and wash their hands with soap/ detergent and water before commencing work and every time after touching food or using toilet.
15. All food handlers should avoid wearing loose items that might fall into food and also avoid touching or scratching their face, head or hair.
16. All articles that are stored or intended for sale shall have proper cover to avoid contamination. Food should be stored only in food grade plastic containers as steel

- containers to prevent leaking.
17. Eating, chewing, smoking, , spitting and nose blowing shall be prohibited within the premises.
  18. Foods shall be prepared or cooked as per the day's requirement to avoid left over which might be used in the next day without ascertaining its safety for consumption or use in food. Consumables left over shall be kept in the refrigerator immediately after their intended use.
  19. Adequate number of racks shall be provided for storage of articles of food, with clear identity of each commodity. Proper compartment for each class shall also be provided wherever possible so that there is no cross contamination.
  20. Rubbish or garbage bin shall be with a tight cover and shall be cleaned everyday by transferring contents into designated locations.
  21. Vegetarian and non-vegetarian items should be segregated.
  22. Fridge should be cleaned at least once a week to remove stains, ice particles and food particles. The temperature in the fridge should be in the range of 4°C - 6°C.
  23. The location of the vending unit should be in a place approved by the local authorities and not blocking traffic or pedestrians or near unhygienic locations.

## Part-II

(See Regulation 2.1.1(4))

### General Requirements on Hygienic and Sanitary Practices to be followed by all Food Business Operators applying for License

The establishment in which food is being handled, processed, manufactured, packed, stored, and distributed by the food business operator and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standards as specified below. It shall also be deemed to be the responsibility of the food business operator to ensure adherence to necessary requirements.

In addition to the requirements specified below, the food business operator shall identify steps in the activities of food business, which are critical to ensure food safety, and ensure that safety procedures are identified, implemented, maintained and reviewed periodically.

#### 1 LOCATION AND SURROUNDINGS

1.1 Food Establishment shall ideally be located away from environmental pollution and industrial activities that produce disagreeable or obnoxious odour, fumes, excessive soot, dust, smoke, chemical or biological emissions and pollutants, and which pose a threat of contaminating food areas that are prone to infestations of pests or where wastes, either solid or liquid, cannot be removed effectively.

1.2 In case there are hazards of other environment polluting industry located nearby, appropriate measures should be taken to protect the manufacturing area from any potential contamination.

1.3 The manufacturing premise should not have direct access to any residential area.

#### 2 LAYOUT AND DESIGN OF FOOD ESTABLISHMENT PREMISES

As far as possible, the layout of the food establishment shall be such that food preparation / manufacturing processes are not amenable to cross-contamination from other pre and post manufacturing operations like goods receiving, pre-processing (viz. packaging, washing / portioning of ready-to-eat food etc).

2.1 Floors, ceilings and walls must be maintained in a sound condition to minimize the accumulation of dirt, condensation and growth of undesirable moulds. They should be made of impervious material and should be smooth and easy to clean with no flaking paint or plaster.

2.2 Doors shall also be made of smooth and non-absorbent surfaces so that they are easy to clean and wherever necessary, disinfect.

2.3 The floor of food processing / food service area shall have adequate and proper drainage and shall be easy to clean and where necessary, disinfect. Floors shall be sloped appropriately to facilitate drainage and the drainage shall flow in a direction opposite to the direction of food preparation / manufacturing process flow.

2.4 Adequate control measures should be in place to prevent insects and rodents from entering the processing area from drains.

2.5 Windows, doors & all other openings to outside environment shall be well screened

with wire-mesh or insect-proof screen as applicable to protect the premise from fly and other insects / pests / animals & the doors be fitted with automatic closing springs. The mesh or the screen should be of such type which can be easily removed for cleaning.

2.6 No person shall manufacture, store or expose for sale or permit the sale of any article of food in any premises not effectively separated to the satisfaction of the licensing authority from any privy, urinal, sullage, drain or place of storage of foul and waste matter.

### 3 EQUIPMENT & CONTAINERS

3.1 Equipment and containers that come in contact with food and used for food handling, storage, preparation, processing, packaging and serving shall be made of corrosion free materials which do not impart any toxicity to the food material and should be easy to clean and /or disinfect (other than disposable single use types).

3.2 Equipment and utensils used in the preparation of food shall be kept at all times in good order and repair and in a clean and sanitary condition. Such utensil or container shall not be used for any other purpose.

3.3 Every utensil or container containing any food or ingredient of food intended for sale shall at all times be either provided with a properly fitted cover/lid or with a clean gauze net or other material of texture sufficiently fine to protect the food completely from dust, dirt and flies and other insects.

3.4 No utensil or container used for the manufacture or preparation of or containing any food or ingredient of food intended for sale shall be kept in any place in which such utensil or container is likely by reason of impure air or dust or any offensive, noxious or deleterious gas or substance or any noxious or injurious emanations, exhalation, or effluvium, to be contaminated and thereby render the food noxious.

3.5 Equipment shall be so located, designed and fabricated that it permits necessary maintenance and cleaning functions as per its intended use and facilitates good hygiene practices inside the premise including monitoring and audit.

3.6 Appropriate facilities for the cleaning and disinfecting of equipments and instruments and wherever possible cleaning in place (CIP) system shall be adopted.

3.7 Equipment and containers for waste, by-products and inedible or dangerous substances, shall be specifically identifiable and suitably constructed.

3.8 Containers used to hold cleaning chemicals and other dangerous substances shall be identified and stored separately to prevent malicious or accidental contamination of food.

3.9 If required, a waste water disposal system / effluent treatment plant shall be put in place.

3.10 All items, fittings and equipments that touch or come in contact with food must be:

kept in good condition in a way that enables them to be kept clean and wherever necessary, to be disinfected.

Chipped enameled containers will not be used. Stainless steel /aluminum / glass containers, mugs, jugs, trays etc. suitable for cooking and storing shall be used. Brass utensils shall be frequently provided with lining.



## 4 FACILITIES

### 4.1 Water supply

4.1.1 Only potable water, with appropriate facilities for its storage and distribution shall be used as an ingredient in processing and cooking.

4.1.2 Water used for food handling, washing, should be of such quality that it does not introduce any hazard or contamination to render the finished food article unsafe.

4.1.3 Water storage tanks shall be cleaned periodically and records of the same shall be maintained in a register.

4.1.4 Non potable water can be used provided it is intended only for cleaning of equipment not coming in contact with food, which does not come into contact with food steam production, fire fighting & refrigeration equipment and provided that pipes installed for this purpose preclude the use of this water for other purposes and present no direct or indirect risk of contamination of the raw material, dairy products or food products so processed, packed & kept in the premise.

4.1.5 Non potable water pipes shall be clearly distinguished from those in use for potable water.

### 4.2 For Cleaning Utensils / Equipments

Adequate facilities for cleaning, disinfecting of utensils and equipments shall be provided. The facilities must have an adequate supply of hot and cold water if required.

### 4.3 Washing of Raw materials

Adequate facilities for washing of raw food should be provided. Every sink (or other facilities) for washing food must have an adequate supply of hot and/or cold water. These facilities must be kept clean and, where necessary, disinfected. Preferably, sinks which are used for washing raw foods shall be kept separate and that should not be used for washing utensils or any other purposes.

### 4.4 Ice and Steam

Ice and steam used in direct contact with food shall be made from potable water and shall comply with requirements specified under 4.1.1. Ice and steam shall be produced, handled and stored in such a manner that no contamination can happen

### 4.5 Drainage and waste disposal

4.5.1 Food waste and other waste materials shall be removed periodically from the place where food is being handled or cooked or manufactured to avoid building up. A refuse bin of adequate size with a proper cover preferably one which need not be touched for opening shall be provided in the premises for collection of waste material. This shall be emptied and washed daily with a disinfectant and dried before next use.

4.5.2 The disposal of sewage and effluents (solid, liquid and gas) shall be in conformity with requirements of Factory / Environment Pollution Control Board. Adequate drainage, waste disposal systems and facilities shall be provided and they shall be designed and constructed in such manner so that the risk of contaminating food or the potable water supply is eliminated.

4.5.3 Waste storage shall be located in such manner that it does not contaminate the food process, storage areas, the environment inside and outside the food establishment and waste shall be kept in covered containers and shall be removed at regular intervals.

4.5.4 Periodic disposal of the refuse / waste should be made compulsory. No waste shall be kept open inside the premise and shall be disposed of in an appropriate manner as per local rules and regulations including those for plastics and other non environment friendly materials.

#### 4.6 Personnel facilities and toilets

4.6.1 Personnel facilities shall include those for proper washing and drying of hands before touching food materials including wash basins and a supply of hot and /or cold water as appropriate; separate lavatories, of appropriate hygienic design, for males and females separately; and changing facilities for personnel and such facilities shall be suitably located so that they do not open directly into food processing, handling or storage areas.

4.6.2 Number of toilets should be adequate depending on the number of employees (male /female) in the establishment and they should be made aware of the cleanliness requirement while handling food.

4.6.3 Rest and refreshments rooms shall be separate from food process and service areas and these areas shall not lead directly to food production, service and storage areas.

4.6.4 A display board mentioning do's & don'ts for the workers shall be put up inside at a prominent place in the premise in English or in local language for everyone's understanding.

#### 4.7 Air quality and ventilation

Ventilation systems natural and /or mechanical including air filters, exhaust fans, wherever required, shall be designed and constructed so that air does not flow from contaminated areas to clean areas.

#### 4.8 Lighting

Natural or artificial lighting shall be provided to the food establishment, to enable the employees/workers to operate in a hygienic manner. Lighting fixtures must wherever appropriate, be protected to ensure that food is not contaminated by breakages of electrical fittings.

### 5 FOOD OPERATIONS AND CONTROLS

#### 5.1 Procurement of raw materials

5.1.1 No raw material or ingredient thereof shall be accepted by an establishment if it is known to contain parasites, undesirable micro-organisms, pesticides, veterinary drugs or toxic items, decomposed or extraneous substances, which would not be reduced to an acceptable level by normal sorting and/or processing.

5.1.2 All raw materials, food additives and ingredients, wherever applicable, shall conform to all the Regulations and standards laid down under the Act.

5.1.3 Records of raw materials, food additives and ingredients as well as their source of procurement shall be maintained in a register for inspection.

5.1.4 All raw materials should be checked & cleaned physically thoroughly.

5.1.5 Raw materials should be purchased in quantities that correspond to storage/preservation capacity.

5.1.6 Packaged raw material must be checked for 'expiry date' / 'best before' / 'use by' date, packaging integrity and storage conditions.

5.1.7 Receiving temperature of potentially high risk food should be at or below 5 °C

5.1.8 Receiving temperature of frozen food should be -18 °C or below.

5.2 Storage of raw materials and food

5.2.1 Food storage facilities shall be designed and constructed to enable food to be effectively protected from contamination during storage; permit adequate maintenance and cleaning, to avoid pest access and accumulation.

5.2.2 Cold Storage facility, wherever required, shall be provided to raw, processed / packed food according to the type and requirement.

5.2.3 Segregation shall be provided for the storage of raw, processed, rejected, recalled or returned materials or products which will be distinguishably marked and secured. Raw materials and food shall be stored in separate areas from printed packaging materials, stationary, hardware and cleaning materials / chemicals.

5.2.4 Raw food, particularly meat, poultry and seafood products shall be cold stored separately from the area of work-in-progress, processed, cooked and packaged products. The conditions of storage in terms of temperature and humidity requisite for enhancing the shelf life of the respective food materials / products shall be maintained.

5.2.5 Storage of raw materials, ingredients, work-in-progress and processed / cooked or packaged food products shall be subject to FIFO (First in, First Out), FEFO (First Expire First Out) stock rotation system as applicable.

5.2.6 Containers made of non-toxic materials shall be provided for storage of raw materials, work-in-progress and finished / ready to serve products. The food materials shall be stored on racks / pallets such that they are reasonably well above the floor level and away from the wall so as to facilitate effective cleaning and prevent harbouring of any pests, insects or rodents.

### 5.3 Food Processing / Preparation, Packaging and Distribution / Service

#### 5.3.1 Time and temperature control

5.3.1.1 The Food Business shall develop and maintain the systems to ensure that time and temperature are controlled effectively where it is critical to the safety and suitability of food. Such control shall include time and temperature of receiving, processing, cooking, cooling, storage, packaging, distribution and food service upto the consumer, as applicable.

5.3.1.2 Whenever frozen food / raw materials are being used / handled / transported, proper care should be taken so that defrosted / thawed material are not stored back after opening for future use.

5.3.1.3 If thawing is required then only required portion of the food should be thawed at a time.

5.3.1.4 Wherever cooking is done on open fire, proper outlets for smoke/steam etc. like chimney, exhaust fan etc. shall be provided.

#### 5.4 Food Packaging

5.4.1 Packaging materials shall provide protection for all food products to prevent contamination, damage and shall accommodate required labelling as laid down under the FSS Act & the Regulations there under.

5.4.2 For primary packaging (i.e packaging in which the food or ingredient or additive comes in direct contact with the packaging material), only Food grade packaging materials are to be used . For packaging materials like aluminium plastic and tin, the standards to be followed are as mentioned under the FSS Regulations and rules framed there under.

5.4.3 Packaging materials or gases where used, shall be non-toxic and shall not pose a threat to the safety and suitability of food under the specified conditions of storage and use.

#### 5.5 Food Distribution / Service

5.5.1 All critical links in the supply chain need to be identified and provided for to minimize food spoilage during transportation. Processed / packaged and / or ready-to-eat food shall be protected as per the required storage conditions during transportation and / or service.

5.5.2 Temperatures and humidity which are necessary for sustaining food safety and quality shall be maintained. The conveyances and /or containers shall be designed, constructed and maintained in such manner that they can effectively maintain the requisite temperature, humidity, atmosphere and other conditions necessary to protect food conveyances and / or containers used for transporting / serving foodstuffs shall be non toxic, kept clean and maintained in good condition in order to protect foodstuffs from any contamination.

5.5.3 Receptacles in vehicles and / or containers shall not be used for transporting anything other than foodstuffs where this may result in contamination of foodstuffs. Where the same conveyance or container is used for transportation of different foods, or high risk foods such as fish, meat, poultry, eggs etc., effective cleaning and disinfections shall be carried out between loads to avoid the risk of cross- contamination. For bulk transport of food, containers and conveyances shall be designated and marked for food use only and be used only for that purpose.

### 6 Management and Supervision

6.1 A detailed Standard Operating Procedure (SOP) for the processing of food as well as its packing, despatch and storage will be developed for proper management which in turn would help in identifying any problem and the exact point, so that damage control would be faster.

6.2 The Food Business shall ensure that technical managers and supervisors have appropriate qualifications, knowledge and skills on food hygiene principles and practices to be able to ensure food safety and quality of its products, judge food hazards, take appropriate preventive and corrective action, and to ensure effective monitoring and supervision.

### 7 Food Testing Facilities

7.1 A well equipped, laboratory for testing of food materials / food for physical, microbiological and chemical analysis in accordance with the specification/standards laid

down under the rules and regulations shall be in place inside the premise for regular / periodic testing and when ever required.

7.2 In case of any suspicion or possible contamination, food materials / food shall be tested before dispatch from the factory.

7.3 If there is no in house laboratory facility, then regular testing shall be done through an accredited lab notified by FSSAI . In case of complaints received and if so required, the company shall voluntarily do the testing either in the in-house laboratory or an accredited lab or lab notified by FSSAI.

## 8 Audit, Documentation and Records

8.1 A periodic audit of the whole system according to the SOP shall be done to find out any fault / gap in the GMP / GHP system.

8.2 Appropriate records of food processing / preparation, production / cooking, storage, distribution, service, food quality, laboratory test results, cleaning and sanitation, pest control and product recall shall be kept and retained for a period of one year or the shelf-life of the product, whichever is more.

## 9 SANITATION AND MAINTENANCE OF ESTABLISHMENT PREMISES

### 9.1 Cleaning and Maintenance

9.1.1 A cleaning and sanitation programme shall be drawn up and observed and the record thereof shall be properly maintained, which shall indicate specific areas to be cleaned, cleaning frequency and cleaning procedure to be followed, including equipment and materials to be used for cleaning. Equipments used in manufacturing will be cleaned and sterilized at set frequencies.

9.1.2 Cleaning chemicals shall be handled and used carefully in accordance with the instructions of the manufacturer and shall be stored separately away from food materials, in clearly identified containers, to avoid any risk of contaminating food.

### 9.2 Pest Control Systems

9.2.1 Food establishment, including equipment and building shall be kept in good repair to prevent pest access and to eliminate potential breeding sites. Holes, drains and other places where pests are likely to gain access shall be kept in sealed condition or fitted with mesh / grills / claddings or any other suitable means as required and animals, birds and pets shall not be allowed to enter into the food establishment areas/ premises.

9.2.2 Food materials shall be stored in pest-proof containers stacked above the ground and away from walls.

9.2.3 Pest infestations shall be dealt with immediately and without adversely affecting the food safety or suitability. Treatment with permissible chemical, physical or biological agents, within the appropriate limits, shall be

carried out without posing a threat to the safety or suitability of food. Records of pesticides / insecticides used along with dates and frequency shall be maintained.

## 10 PERSONAL HYGIENE

### 10.1 Health Status

10.1.1 Personnel known, or believed, to be suffering from, or to be a carrier of a disease or illness likely to be transmitted through food, shall not be allowed to enter into any food handling area. The Food Business shall develop system, whereby any person so affected, shall immediately report illness or symptoms of illness to the management and medical examination of a food handler shall be carried out apart from the periodic checkups, if clinically or epidemiologically indicated.

10.1.2 Arrangements shall be made to get the food handlers / employees of the establishment medically examined once in a year to ensure that they are free from any infectious, contagious and other communicable diseases. A record of these examinations signed by a registered medical practitioner shall be maintained for inspection purpose.

10.1.3 The factory staff shall be compulsorily inoculated against the enteric group of diseases as per recommended schedule of the vaccine and a record shall be kept for inspection.

10.1.4 In case of an epidemic, all workers are to be vaccinated irrespective of the scheduled vaccination.

### 10.2 Personal Cleanliness

10.2.1 Food handlers shall maintain a high degree of personal cleanliness. The food business shall provide to all food handlers adequate and suitable clean protective clothing, head covering, face mask, gloves and footwear and the food business shall ensure that the food handlers at work wear only clean protective clothes, head covering and footwear every day.

10.2.2 Food handlers shall always wash their hands with soap and clean potable water, disinfect their hands and then dry with hand drier or clean cloth towel or disposable paper at the beginning of food handling activities immediately after handling raw food or any contaminated material, tools, equipment or work surface, where this could result in contamination of other food items or after using the toilet.

10.2.3 Food handlers engaged in food handling activities shall refrain from smoking, spitting, chewing, sneezing or coughing over any food whether protected or unprotected and eating in food preparation and food service areas.

10.2.4 The food handlers should trim their nails and hair periodically, do not encourage or practice unhygienic habits while handling food.

10.2.5 Persons working directly with and handling raw materials or food products shall maintain high standards of personal cleanliness at all times. In particular: a) they shall not smoke, spit, eat or drink in areas or rooms where raw materials and food products are handled or stored;

b) wash their hands at least each time work is resumed and whenever

contamination of their hands has occurred; e.g. after coughing / sneezing, visiting toilet, using telephone, smoking etc.

c) avoid certain hand habits - e.g. scratching nose, running finger through hair, rubbing eyes, ears and mouth, scratching beard, scratching parts of bodies etc.- that are potentially hazardous when associated with handling food products, and might lead to food contamination through the transfer of bacteria from the employee to product during its preparation. When unavoidable, hands should be effectively washed before resuming work after such actions.

### 10.3 Visitors

10.3.1 Generally visitors should be discouraged from going inside the food handling areas. Proper care has to be taken to ensure that food safety & hygiene is not getting compromised due to visitors in the floor area.

10.3.2 The Food Business shall ensure that visitors to its food manufacturing, cooking, preparation, storage or handling areas must wherever appropriate, wear protective clothing, footwear and adhere to the other personal hygiene provisions envisaged in this section.

## 11. PRODUCT INFORMATION AND CONSUMER AWARENESS

All packaged food products shall carry a label and requisite information as per provisions of Food Safety and Standards Act, 2006 and Regulations made there under so as to ensure that adequate and accessible information is available to the each person in the food chain to enable them to handle, store, process, prepare and display the food products safely and correctly and that the lot or batch can be easily traced and recalled if necessary.

## 12 TRAINING

12.1 The Food Business shall ensure that all food handlers are aware of their role and responsibility in protecting food from contamination or deterioration. Food handlers shall have the necessary knowledge and skills which are relevant to food processing / manufacturing, packing, storing and serving so as to ensure the food safety and food quality.

12.2 The Food Business shall ensure that all the food handlers are instructed and trained in food hygiene and food safety aspects along with personal hygiene requirements commensurate with their work activities, the nature of food, its handling, processing, preparation, packaging, storage, service and distribution.

12.3 Periodic assessments of the effectiveness of training, awareness of safety requirements and competency level shall be made, as well as routine supervision and checks to ensure that food hygiene and food safety procedures are being carried out effectively.

12.4 Training programmes shall be routinely reviewed and updated wherever necessary.

## PART-III

(See Regulation 2.1.2.(1)(5))

Specific Hygienic and Sanitary Practices to be followed by Food Business Operators engaged in manufacture, processing, storing and selling of Milk and Milk Products

In addition to Part-II, the dairy establishment in which dairy based food is being handled, processed, manufactured, stored, distributed and ultimately sold by the food business

operator, and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standard as specified below.

## I. SANITARY REQUIREMENTS

1. Dairy Establishments shall have the following:

(a) Facilities for the hygienic handling and protection of raw materials and of non-packed or non-wrapped dairy products during loading and unloading, transport & storing including Bulk Milk cooling facilities.

(b) Special watertight, non-corrodible containers to put raw materials or dairy products intended for human consumption. Where such raw materials or dairy products are removed through conduits, these shall be constructed and installed in such a way so as to avoid any risk of contamination of other raw materials or dairy products;

(c) a waste water disposal system which is hygienic and approved ;

(d) facilities for cleaning & disinfecting of tanks used for transporting dairy products and raw milk. These containers have to be cleaned after every use.

2. The occupier of a dairy establishment shall take appropriate measures to avoid cross-contamination of dairy products in accordance with the cleaning program as specified in point 9.1 of Part II.

3. Where a dairy establishment produces food stuffs containing dairy products together with other ingredients, which have not undergone heat treatment or any other treatment having equivalent effect, such dairy products and ingredients shall be stored separately to prevent cross-contamination.

4. The production of heat-treated milk or the manufacture of milk-based products, which might pose a risk of contamination to other dairy products, shall be carried out in a clearly separated working area.

5. Equipment, containers and installations which come into contact with dairy products or perishable raw materials used during production shall be cleaned and if necessary disinfected according to a verified and documented cleaning programme.

6. Equipment, containers, instruments and installations which come in contact with microbiologically stable dairy products and the rooms in which they are stored shall be cleaned and disinfected according to a verified and documented Food Safety management programme drawn up by the owner/occupier of the dairy establishment.

7. Disinfectants and similar substances used shall be used in such a way that they do not have any adverse effects on the machinery, equipment, raw materials and dairy products kept at the dairy establishment. They shall be in clearly identifiable containers bearing labels with instructions for their use and their use shall be followed by thorough rinsing of such instruments and working equipment with potable water, unless supplier's instructions indicate otherwise.

## II. PERSONAL HYGIENE REQUIREMENTS

1. The Food Business Operator shall employ those persons only in such an establishment to work directly with and handle raw materials or dairy products if those persons have proved to the occupier's satisfaction by means of a medical certificate, on recruitment, that there is no medical impediment to their employment in that capacity.

2. Persons working directly with and handling raw materials or dairy products shall maintain the highest standards of personal cleanliness at all times. In particular they shall



(a) wear suitable, clean working clothes and headgear which completely encloses their hair;

(b) wash their hands at least each time work is resumed and whenever contamination of their hands has occurred; e.g. after coughing / sneezing, visiting toilet, using telephone, smoking etc.

(c) cover wounds to the skin with a suitable waterproof dressing. No person with injury on hand, even with dressing, shall be placed in any product making/handling section.

(d) avoid certain hand habits - e.g. scratching nose, running finger through hair, rubbing eyes, ears and mouth, scratching beard, scratching parts of bodies etc. that are potentially hazardous when associated with handling dairy products, and might lead to food contamination through the transfer of bacteria from the employee to product during its preparation. When unavoidable, hands should be effectively washed before resuming work after such actions

### III. SANITARY REQUIREMENTS FOR STORAGE

1. Immediately after procuring, raw milk shall be placed in a clean place, which is suitably equipped so as to prevent any kind of contamination.

2. The cans/ containers made up of mild steel metal and plastic material used for storage and transportation of milk and milk products shall not be allowed.

3. If raw milk is brought to the dairy plant by a producer or farmer then it shall be ensured that he brings it within four hours of milking and it shall be cooled as soon as practicable to a temperature of 4°C or lower and maintained at that temperature until processed.

4. Where raw milk is collected daily from a producer, it shall be cooled immediately to a temperature of 4°C to 6°C or lower and maintained at that temperature until processed;

5. When the pasteurization process is completed, pasteurized milk shall be cooled immediately to a temperature of 4°C or lower.

6. Subject to Paragraph 7 below, any dairy product not intended to be stored at ambient temperature shall be cooled as quickly as possible to the temperature established by the manufacturer of that product as suitable to ensure its durability and thereafter stored at that temperature.

7. Where dairy products other than raw milk are stored under cooled conditions, their storage temperatures shall be registered and the cooling rate shall be such that the products reach the required temperature as quickly as possible.

8. The maximum temperature at which pasteurized milk may be stored until it leaves the treatment establishment shall not exceed 5°C.

### IV. WRAPPING AND PACKAGING

1. The wrapping and packaging of dairy products shall take place under satisfactory hygienic conditions and in rooms provided for that purpose.

2. The manufacture of dairy products and packaging operations may take place in the same room if the following conditions are satisfied: —

(a) The room shall be sufficiently large and equipped to ensure the hygiene of the operations;

(b) the wrapping and packaging shall have been brought to the treatment or processing establishment in protective cover in which they were placed immediately after manufacture and which protects the wrapping or packaging from any damage during transport to the dairy establishment, and they shall have been stored there under hygienic conditions in a room intended for that purpose;

(c) the rooms for storing the packaging material shall be free from vermin and from dust which could constitute an unacceptable risk of contamination of the product and shall be separated from rooms containing substances which might contaminate the products. Packaging shall not be placed directly on the floor;

(d) packaging shall be assembled under hygienic conditions before being brought into the room, except in the case of automatic assembly or packaging, provided that there is no risk of contamination of the products;

(e) packaging shall be done without delay. It shall be handled by separate group of staff having experience in handling and product wrapping and

(f) immediately after packaging, the dairy products shall be placed in the designated rooms provided for storage under required temperature.

3. Bottling or filling of containers with heat-treated milk and milk product shall be carried out hygienically.

4. Wrapping or packaging may not be re-used for dairy products, except where the containers are of a type which may be re-used after thorough cleaning and disinfecting.

5. Sealing shall be carried out in the establishment in which the last heat-treatment of milk or liquid milk-based products have been carried out, immediately after filling, by means of a sealing device which ensures that the milk is protected from any adverse effects of external origin on its characteristic. The sealing device shall be so designed that once the container has been opened, the evidence of opening remains clear and easy to check.

### Specific Hygienic and Sanitary Practices to be followed by Food Business Operators engaged in manufacture, processing, storing and selling of Meat and Meat Products

#### A. Slaughter House

Food Business Operator which slaughters large animals and small animals including sheep and goat or poultry birds within the premises of his factory for production of meat/ meat products for supply / sale/ distribution to the public shall comply with the following requirements:—

##### 1. General Requirements:

1.1 No Objection Certificate to be obtained from local Authority before grant of license.

##### 2. Location of Premises:

Such establishments / Slaughter Houses should be linked to a meat market located away from Vegetable, fish or other food markets and shall be free from undesirable odour, smoke, dust or other contaminants. The premises shall be located at elevated level in a sanitary place.

##### 3. Premise requirements:

3.1 The slaughter house shall have a reception area/animal holding yard/resting yard, lairage, slaughter hall, side halls for hide collection, paunch collection, offals collection, and separation, holding room for suspected/ condemned carcass, by-product harvesting, refrigeration room/cold room etc.

3.2 Every such establishment / Slaughter House shall make separate provision in the slaughter hall for the slaughter of different species which are proposed to be slaughtered (like large animal viz; Cattle and Buffalo, Pigs and small animals like Sheep & Goat) and for different methods of slaughter (like Halal, Jewish and Jhatka). After every type of operation the slaughter house shall be cleaned, washed wiped/dried and sanitized thoroughly.

3.3 The slaughter house shall have separation between clean and dirty sections and shall be so organized that from the introduction of a live animal into the slaughter house up to the emergence of meat and offal classed as fit for human consumption there shall be a continuous forward movement without any possibility of reversal, intersection or overlapping between the live animal meat, and between meat and bye products or waste

3.4 The reception area/animal holding yard/ resting yard shall have facilities for watering and examining animals before they are sent to holding pens/lairage. Animals suspected of contagious or infectious diseases shall be segregated and kept in separate isolation pens which shall also be provided with arrangements for watering and feeding. After confirmation for any notifiable disease, the designated Veterinary Authority shall notify the disease as per the existing procedures. The resting yard must have overhead protective shelter.(This is not mandatory for registration category)

3.5 The lairage shall be adequate in size for the number of animals to be laired.

3.6 Separate space shall be provided for stunning (Wherever applicable), for collection of blood and for dressing of the carcasses. The slaughtering of an animal shall not be done in the sight of other animals. The dressing of the carcass shall not be done on the floor. Suitable hoists will be provided to hang the carcass before it is eviscerated.

3.7 All the floors in lairage, slaughter halls, work rooms, hanging rooms shall be of impervious and non-slippery material.

3.8 The internal walls will be paved with impervious glazed tiles up to 1 meter height in case of poultry and small ruminant animals and 5 meter height in case of large ruminant animals . The walls and floors should be epoxy coated so as to avoid accumulation/absorption of dust, blood/meat particles, microbial/fungal growth.

3.9 Ceiling or roofs shall be so constructed and finished so as to minimise condensation, mould development, flaking and accumulation of dirt.

3.10 Suitable and sufficient accommodation shall be provided for segregation, storage and disposal of condemned meat.

3.11 The establishments / Slaughter Houses shall be so constructed and maintained as to permit hygienic production.

3.12 Windows, doors and other openings suited to screening shall be fly proof. All doors shall have strong springs so that they may close automatically.

3.13 All operations in connection with the preparation or packing of meat / meat food products shall be carried out under hygienic conditions. No portion of the establishments / Slaughter Houses premises shall ever be used for living or sleeping purposes unless it is separated from the factory by a wall.

3.14 There shall be efficient drainage and plumbing systems and all drains and gutters shall be properly and permanently installed. There shall be provision for the disposal of refuse.

3.15 The drainage system for blood shall either be underground with facility for easy cleaning or a portable receptacle with lid. All drainages will have traps and screens so as to prevent entry of scavengers like rats, mice, vermin etc.

3.16 The rooms and compartments where edible products are handled shall be separate and distinct from the rooms and compartments for inedible products.

3.17 Suitable and separate space shall be provided for the storage of hides and skins. This room shall have a separate exit.

3.18 A constant and sufficient supply of clean potable cold water with pressure hose pipes and supply of hot water should be made available in the slaughter hall during working hours.

3.19 Suitable and sufficient facilities shall be provided for persons working in the slaughter house for changing their clothes and cleaning their footwear, and cleaning their hands before entering rooms used for the preparation and storage of meat.

3.20 Provision for latrines, toilets and change rooms will be made. Sufficient number of latrines, urinals, washbasins and bathrooms for each sex shall be provided.

3.21 Suitable and sufficient facilities shall be provided in convenient places within the slaughter house for the sterilisation of knives and sharpner (mushtala) and other equipment used in the slaughter house. The knives and sharpner (mushtala) shall be of stainless steel only.

3.22 Whenever cooking is done on open fire, chimneys shall be provided for removal of smoke and soot.

3.23 Whenever the dressed meat is not used up for the preparation of meat food products and some portion has to be stored without further immediate processing, such storage shall be in a room maintained at 0° C to 2°

3.24 All slaughter house refuse and waste materials will be suitably processed to prepare animal bye products or dumped in pits that are suitably covered so as to prevent its access to scavengers. For large slaughter houses, a suitable provision of Effluent Treatment Plant will be made.

3.25 In case of small slaughter houses, waste material should be composted which can be used for manure purpose and in case of large slaughter houses, waste material should be rendered (cooked) in a rendering plant to produce meat, bone meal and inedible fats.

3.26 Suitable and sufficient facilities shall be provided for the isolation of meat requiring further examination by the authorised veterinary officer in a suitable laboratory (within the premises of the slaughter house).

3.27 Consistent with the size of the factory and volume and variety of meat food products manufactured, a laboratory shall be provided, equipped and staffed with qualified (chemist/analyst and Veterinary Microbiologist) and trained personnel. The licensing authority shall accord approval of the laboratory after inspection.

3.28 The Chemist/analyst shall have passed graduation with Chemistry as one subject and the Veterinary Microbiologist shall be a qualified veterinarian with two years of experience in Meat analysis or having degree of Master in Veterinary Public Health with specialization in Meat Hygiene.

3.29. Adequate natural or artificial lighting should be provided throughout the abattoir/ meat processing unit. Where appropriate, the lighting should not alter colours and the intensity should not be less than 540 Lux (50 foot candles) at all inspection points, 220 Lux (20 foot candles) in work rooms and 110 Lux (10 foot candles) in other areas. Light bulbs and fixtures suspended over meat in any stage of production should be of safety type and protected to prevent contamination of meat in case of breakage. As far as possible meat inspection shall be carried out in day light. Every abattoir shall be provided with well distributed artificial light.

#### 4. Sanitary Practices:

4.1 Every part of the internal surface above the floor or pavement of such slaughter house shall be washed thoroughly with hot lime wash within the first 10 days of March, June, September and December. Every part of the floor or pavement of the slaughter house and every part of the internal surface of every wall on which any blood or liquid

refuse or filth may have been spilt or splashed or with which any offensive or noxious matter have been brought into contact during the process of slaughtering, dressing and cutting, shall be thoroughly cleaned, washed with water, wiped/dried and disinfected within three hours after the completion of slaughter.

4.02 Rooms and compartments in which animals are slaughtered or any product is processed or prepared shall be kept sufficiently free from steam, vapours and moisture and obnoxious odours so as to ensure clean and hygienic operations. This will also apply to overhead structures in those rooms and compartments.

4.03 All parts of the establishments / Slaughter Houses shall always be kept clean, adequately lighted and ventilated and shall be regularly cleaned, and disinfected. The floorings shall be impervious and washed daily. Lime washing, colour washing or painting as the case may be, shall be done at least once in every twelve months.

4.04 All yards, outhouses, stores and all approaches to the establishments / Slaughter Houses shall always be kept clean and in a sanitary condition.

4.05 Suitable and sufficient receptacles furnished with closely fitted covers shall be provided for collection and removal of all garbage, filth and refuse from the slaughter house at a convenient time to a place away from the factory for disposal.

4.06 All blood, manure, garbage, filth or other refuse from any animal slaughtered and the hide, fat, viscera and offal there from, shall be removed from the slaughter house within 8 hours after the completion of the slaughtering and in such a manner and by such means as will not cause nuisance at the premises or elsewhere. Every such vessel or receptacle shall be thoroughly cleaned and disinfected immediately after use and shall be kept thoroughly clean when not in actual use.

4.07 The inner side of the skin shall not be rubbed or caused to be rubbed upon the ground within any portion of the slaughter hall. Hides and skins shall not be dragged within the slaughter hall. No gut-scraping, tripe cleaning, manufacture or preparation of meat food products, household washing of clothes or work of any nature other than is involved in the slaughter and dressing of the carcass shall be permitted in any slaughter hall except in the adjuncts to the slaughter hall intended for these products and purposes.

4.08 The premises shall be cleaned thoroughly with disinfectants, one day in advance of production of meat food products and the equipments shall be sterilized/sanitized before use. The rooms and compartments in which any meat food product is prepared or handled shall be free from dust and from odours emanating from dressing rooms, toilet rooms, catch basins, hide cellars, casing rooms and livestock pens.

4.9 Every practicable precaution shall be taken to exclude flies, rats, mice and vermin from the establishments

/ Slaughter Houses. The use of poisons for any purpose in rooms or compartments where any unpacked product is stored or handled is forbidden. The use of approved bait poisons in hide cellars, compartments where inedible products are stored, outhouses or similar buildings containing canned products is, however, not forbidden.

4.10 It shall be ensured that dogs, cats or birds do not have access to the slaughter hall. Open areas in the factory shall have covered wire rope netting to prevent carrion birds from access to the slaughter hall or the factory.

4.11 Water used in the establishments / Slaughter Houses shall be potable and suitable arrangements shall be made for ensuring potability of water if bore well water is used for production of meat and meat products. If required by the licensing authority.

the water shall be got examined chemically and bacteriologic ally by a recognised laboratory. The water quality shall comply the standards prescribed by the licensing Authority.

4.12 Warm meat' meant for immediate sale need not be stored in cool conditions. It can be transported in a hygienic and sanitary condition in clean insulated containers with covers (lids) to the meat shops/selling units with precautions to ensure that no contamination/cross contamination or deterioration takes place.

#### 5. Equipment & Machinery:

5.1 The equipment and fittings in slaughter hall except for chopping blocks, cutting boards and brooms, shall be of such material and of such construction as to enable them to be kept clean. The implements shall be of metal or other cleanable and durable material resistant to corrosion.

5.2 No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of meat food products. (Copper or brass vessels shall always be heavily lined. No iron or galvanised iron shall come in contact with meat food products).

#### 6. Personnel Hygiene:

6.1 No person suffering from infectious or contagious diseases shall be allowed to work in the factory. Arrangements shall be made to get the factory staff medically examined at such intervals as the licensing authority deems fit, to ensure that they are free from infectious, contagious and other diseases. A record of these examinations signed by a registered medical practitioner shall be maintained for inspection.

6.2 The staff shall be inoculated against the enteric group of diseases and a certificate thereof shall be kept for inspection.

6.3 In case of an epidemic, all workers should be inoculated or vaccinated.

6.4 The workers working in processing and preparation shall be provided with proper aprons and head wears which shall be clean. The management shall ensure that all workers are neat, clean and tidy.

##### (a) Animal Welfare

Animal welfare is a major concern in meat production. It is essential that animals be reared, handled, transported, and slaughtered using humane practices. A healthy and peaceful animal is an essential requirement for hygienic slaughter and safety of the meat product.

Careful handling of animals during loading / unloading, transportation and at slaughtering helps in improving the quality of meat and reduction in losses in the value of the carcass/meat.

#### 1. Pre Slaughter Handling of Animal:

Livestock are transported en masse from the farm to the slaughterhouse, a process called "live export". Depending on its length and circumstances, this exerts stress and injuries on the animals and some may die en route. Apart from being inhumane, unnecessary stress in transport may adversely affect the quality of the meat. In particular, the muscles of stressed animals are low in water and glycogen, and their pH fails to attain acidic values.

## Transportation of Animals

Following requirements shall be satisfied for Transportation of Animals from a farm to the slaughter house. 1.0 General Conditions

1.1 Only healthy animals in good condition shall be transported unless they are meant for emergency slaughter. These animals should be certified by a qualified veterinary inspector for freedom from infectious diseases and ecto-parasitic diseases and their fitness to undertake the journey.

1.2 When animals are to be transported from endemic areas of a disease to non-endemic areas, the animals should be given protective vaccination and kept in quarantine for 30 days, before transportation.

1.3 Female animals in advanced stages of pregnancy shall not be transported.

1.4 When transporting large animals particularly bears/bulls, special arrangements by providing suitable partitions should be made to protect the animals from infighting. Similar arrangements should also be made to protect the young ones from being crushed when they are transported.

1.5 To avoid exhaustion, the animals shall be given humane treatment and care during transportation. The animals shall not be bound or chained during transit and space provided for them shall be large enough to stand or lie.

1.6 An attendant along with first aid equipment shall accompany the animals in transit.

1.7 Before loading, the animals should not be fed heavily. Only light feed may be allowed. For journeys less than 12 hours no feed need be carried but for longer journeys sufficient feed shall be carried to last during the journey. Watering facilities shall be provided at regular intervals.

1.8 Light and heavy animals shall be separated by providing partitions; animals from different pens/sheds shall not be mixed during transportation. Male stock shall not be transported with female stock (adults).

1.9 All vehicles should be inspected for safety, suitability and cleanliness before loading the animals. The floor and walls should be undamaged and there should be no nails or sharp projections which may injure the animals.

1.10 The Vehicles should be thoroughly sprayed with suitable disinfectant before loading the animals.

1.11 A layer of clean sand to cover the floor to a thickness of not less than 6 cm shall be provided. This layer of sand shall be moistened with water during the summer months. During hot months arrangements shall be made to sprinkle water on the animals at frequent intervals. In winter, a 2-cm layer of clean sand with another 6-cm layer of whole-straw shall be provided.

1.12 Animals when driven for loading or unloading shall never be struck with stick. Driving could best be done by soft-rubber pipe.

1.13 If animals are to be transported in extreme cold or hot climate, it is preferable to transport them in covered Lorries on road so that they may not die or get exhausted or suffer from acute respiratory disease. Journey under such adverse climate shall be minimised.

1.14 Each consignment should bear a label showing the following particulars:

a) Number and kind of the animals loaded.



- b) Name, address and telephone number, if any, of the consignor;
- c) Name address and telephone number, if any, of the consignee;
- d) Instructions regarding feeding and watering.

## 2.0 Loading

2.1 Loading during extremes of temperatures shall be avoided.

2.2 Suitable ramp shall be provided for loading and unloading the animals. The floor of the ramp shall have cleats at intervals, so that animals do not slip as they climb or descend. The ramp shall be covered with straw to avoid slipping. At any time of loading and unloading the vehicle shall be kept clean to avoid slipping of animals. Bale

2.3 In case of railway wagons when loading is done on the platform, the door of the wagon may be used as ramp. In such cases, bales or bags of hay, agricultural wastes etc. may be placed on the either side of the dropped door to prevent the animals from getting their legs between the sides of the wagons and platform.

## 3.0 Space Requirements

3.1 Overcrowding shall be avoided. Each animal shall have enough space to lie down.

3.2 Railway wagons shall not accommodate more animals than those specified in IS specifications.

3.3 The speed of truck transporting animals shall not exceed 40 kilometres per hour, avoiding jerks and jolts. The truck shall not load any other merchandise and shall avoid unnecessary stops on the road.

3.4 For journeys, exceeding 12 hours, the animals shall be transported by railway. Loading shall be done by evening.

## 4.0 Slaughter:

Animals are slaughtered by being first stunned and then exsanguinated (bled out). Stunning can be effected through asphyxiating the animals with carbon dioxide, shooting them with a gun or a captive bolt pistol, or shocking them with electric current.

### 4.1. Stunning:

Stunning before slaughter should be mandatory. By inducing unconsciousness and insensibility, stunning can avoid and minimise reactions of fear and anxiety as well as pain, suffering and distress among the animals concerned. Stunning methods induce temporary loss of consciousness and rely on prompt and accurate sticking procedures to cause death.

It is important that the equipment utilized for stunning and slaughter is maintained in good working condition and that all operators involved are well trained and have a positive attitude towards the welfare of animals.

Electrical stunning consists of passing electricity through the brain to produce instantaneous insensibility. The following method of slaughter shall be considered humane:—

(i) Mechanical stunning of cattle may be carried out by one of three methods; captive bolt stunning, mushroom head percussive stunning and pneumatic percussive stunning. For cattle, pneumatic stunning should be preferred and the

point of intersection of lines drawn from the medial corners of the eyes and the base of the ears. The best position for pigs is on the midline just above eye level, with the host directed down the line of the spinal cord. The optimum position for sheep and goat is behind the poll, aiming towards the angle of the jaw. If an animal shows signs of regaining consciousness after the initial stun, the animal must be immediately killed by the use of a captive bolt gun.

(ii) Electrical stunning - Electrical Head Stunners may be preferred for sheep and goat where both electrodes are placed on the head region. Water bath electrical stunning may be used for poultry birds. A low and controlled voltage must be maintained so that the stunning will not damage the heart and brain or cause physical disability and death to the animals. The minimum current level recommended for stunning are indicated in the table below.

## 5. Precautions for animal

welfare: a. General:

- (1) The floor of the slaughter area should not cause slipping or falling of animals.
  - (2) Vocalization is an indicator of animal discomfort and need to be watched for.
  - (3) Use of electric prods for moving animal should be discouraged. Movement of animals can be managed by grouping, use of plastic wrapped sticks etc.
  - (4) Pen stocking density should be monitored. All animals should have room to lie down simultaneously. The condition of animals arriving for slaughter should be closely monitored so that injured, diseased animals are not slaughtered.
  - (5) High pitch sounds such as whistling and yelling should be avoided to spare distress to animals.
- b. The following factors have been identified as critical to animal welfare:
- (a) supervision and training of employees.
  - (b) Designing of animal transport cart and unloading bay.
  - (c) Proper construction of holding/resting pen, stunning box, maintenance of stunning equipment, restraining systems, gates and other animal handling equipment.
  - (d) Avoiding distractions that make animals refuse to move.
  - (e) Monitoring the condition of animals arriving at the plant.
  - (f) Proper design of equipment in the slaughter house.

Keeping this in view, the following need to be observed to ensure humane treatment of animals brought for slaughter:—

Pre-slaughter handling of animal should be carefully done to reduce stress. Resting of the animals is essential. Only animals which are disease free and in a condition to walk should be brought for slaughter.

Distractions that impede animal movements such as, reflections, air blowing towards animals and movement or high pitch noise, need to be avoided. Herding of animals should not be done through electric prods but with the help of plastic bags or sticks.

A high standard of training is required for employees to ensure that the basic hygiene and safety practices are followed while handling animals. Equipment

which is used for slaughter such as captive bolt stunner, gates, hooks etc should be kept in good working condition and cleanliness of floors etc. needs to be ensured. There should be daily check to ensure the smooth working of equipment and cleanliness of floors.

The condition of the animals arriving at the plant should be monitored. Animals which are injured or not in a condition to walk should not be slaughtered.

Inspecting personnel should pay particular attention to these points to ensure reasonable standards of animal welfare.

## 6. Poultry welfare:

### Welfare programme

The conditions under which broilers are housed and the way that they are managed during their growing phase, transportation and slaughter are set down in several government/industry endorsed Model Codes of Practice designed to safeguard their welfare.

A model welfare program needs to be developed for pick-up, transport and broiler/chicken processing sectors. Processing unit shall incorporate elements of this welfare audit in their own quality plans and manuals.

A Model programme shall envisage following:

Poultry Suppliers and processors must have a documented program for poultry welfare envisaging following;

(a) Catching: Poultry intended for slaughter plant should be clean and in good health. Every reasonable precaution should be taken to minimize injury to poultry. The catcher needs to be trained to this effect.

(b) Transport: For transport of poultry crates shall be in good repair. There shall be no crate/cage damage that would allow injury to poultry or allow crates to accidentally open. Transport crates should not be over-filled and enough space should be provided to allow all poultry to lie down.

(c) Holding: Poultry held in storage sheds should be provided adequate ventilation and climate control such as fans or curtains.

(d) Stunning: Stunning equipment should be properly maintained to confirm that poultry are insensible prior to slaughter, and the time between stunning and slaughter should be limited to minimize any likelihood that poultry may regain consciousness prior to slaughter.

### Economic performance and welfare:

High standards of poultry welfare and high levels of flock performance and economic performance are not incompatible - quite the contrary, they go hand in hand. It simply makes good economic sense as well as being in the poultry's best interests to ensure that flocks are maintained in an environment, in which they are thermally comfortable, protected from injury, fed optimally and kept healthy. Therefore, all

measures described elsewhere to ensure that chickens are kept in conditions which optimize their comfort (in terms of temperature, humidity, air flow and air quality), in which they are provided with water, shelter, and a high quality diet that matches their physiological needs, and which optimize their health have just as important effect in terms of poultry welfare as they do on the overall efficiency of the farming operation.

#### Poultry health and welfare:

When producing chicken meat in a welfare-friendly manner it is also important that the poultry receive prompt and appropriate medication and treatment to prevent and treat diseases if this should become necessary, and that they do not suffer any unnecessary pain, distress, fear or physical injury. It is also important that sick or injured poultry that cannot be adequately or successfully treated are culled quickly and in a humane manner so that they do not suffer.

#### Humane slaughter (poultry):

While the chickens are reared specifically for human consumption and they therefore at some stage have to be slaughtered, they should be slaughtered in a humane manner, and all poultry should be stunned (rendered insensible to pain) prior to slaughter.

Slaughter equipment at all supply facilities should be properly maintained to confirm that the poultry are slaughtered quickly.

#### 7. Ante-mortem inspection

(1) All animals shall be rested before slaughter and shall be subjected to ante-mortem examination and inspection well in advance of the time of slaughter.

(2) No animal which has been received into a slaughter hall for the purpose of being slaughtered shall be removed from the slaughter hall before being slaughtered except with the written consent of the Qualified Veterinary Doctor. An animal which, on inspection is found to be not fit for slaughter shall be marked as "suspect" and kept separately. Each such animal shall be marked as "suspect" only by or under the personal supervision of the Qualified Veterinary Doctor and the marking shall not be removed or obliterated except by the Qualified Veterinary Doctor himself.

(3) An animal showing signs of any disease at the time of ante-mortem inspection that would cause its carcass being ultimately condemned on post-mortem shall be marked as "condemned" and rejected.

(4) An animal declared as "suspect" on ante-mortem inspection but which does not plainly show any disease or condition that would cause its entire carcass to be condemned shall maintain its identity as "suspect" until its carcass and all organs are finally inspected by the Qualified Veterinary Doctor.

(5) No animal in a febrile condition shall be permitted for slaughter. No suspect animal shall be slaughtered until all other animals intended for slaughter on the same day have been slaughtered. All animals which, on ante-mortem inspection, show symptoms of railroad sickness, parturient paresis, rabies, tetanus or any other communicable diseases shall be marked as "condemned" and disposed of in accordance with the provisions contained in sub paragraph (8) below.

(6) Animals presented for slaughter and found in a dying condition on the premises of a factory due to recent disease shall be marked as "condemned" and disposed of as provided for "condemned" animals.

(7) Every animal which, upon examination, is found to show symptoms of or is suspected of being diseased or animals declared as "suspect" shall at once be removed for treatment to such special pen and kept there for observation for such period as may be considered necessary to ascertain whether the animal is diseased or not.

(8) All animals declared as "condemned" on ante-mortem inspection shall be marked as "condemned" and killed if not already dead. Such carcasses shall not be taken into the factory to be slaughtered or dressed, nor shall they be conveyed into any department of the factory used for edible products.

#### 8. Post-mortem inspection—

1. A careful and detailed post-mortem examination and inspection of the carcasses and parts thereof of all animals slaughtered shall be made soon after slaughter. All organs and parts of the carcasses and blood to be used in the preparation of meat food products shall be held in such a manner as to preserve their identity till the completion of the post-mortem inspection so that they can be identified in the event of the carcasses being condemned.

2. Every carcass including all detached parts and organs thereof which show evidence of any condition which will render the meat or any part or organ unfit for human consumption and which for that reason may require subsequent inspection, shall be retained by the Qualified Veterinary Doctor. The identity of such carcass including the detached parts and organs thereof shall be maintained until the final inspection is completed. Retained carcasses, detached parts and organs thereof shall be maintained until the final inspection is completed. Retained carcasses, detached parts and organs thereof shall in no case be washed, trimmed or mutilated in any manner unless otherwise authorized by the Qualified Veterinary Doctor.

3. No air shall be blown by mouth into the tissues of any carcass or part of a carcass.

4. Every carcass or part thereof which has been found to be unfit for human consumption shall be marked by the Qualified Veterinary Doctor as "Inspected and condemned".

5. All such condemned carcasses, parts and organs thereof shall remain in the custody of the Qualified Veterinary Doctor pending disposal at or before the close of the day on which they are marked "Inspected and condemned" in accordance with sub-paragraphs (11), (12) and (13) below.

6. Carcasses, parts and the organs thereof found to be sound, wholesome, healthful and fit for human consumption shall be marked as "Inspected and passed".

7. Carcasses found affected with anthrax before evisceration shall not be eviscerated but condemned and disposed of immediately in accordance with sub-paragraph (12) below. Any part of a carcass contaminated with anthrax infected material through contact with soiled instruments or otherwise shall be immediately condemned and disposed of as provided in sub-paragraph (12) below.

8. The portion of the slaughtering department including equipment, employees' boots and aprons, etc., contaminated by contact with anthrax material shall be cleaned and thoroughly disinfected immediately.

9. When on inspection only a portion of a carcass on account of slight bruises is decided to be condemned, either the bruised portion shall be removed immediately and disposed of in accordance with sub-paragraph (13) below or the carcass shall be retained and kept till such time it is chilled and the bruised portion removed and disposed of as provided above.

10. Post-mortem inspection shall be a detailed one and shall cover all parts of the carcass, the viscera, lymph glands and all organs and glands.

11. The post-mortem inspection shall be in accordance with the general rules laid

down for such inspection in public slaughter houses under the control of local bodies besides special instructions that may be issued from time to time by the licensing authority.

12. All condemned carcasses, organs or parts thereof shall be completely destroyed in the presence of the Qualified Veterinary Doctor by incineration or denatured, after being slashed freely with a knife, with crude carbolic acid, cresylic-disinfectant or any other prescribed agent unless such carcasses, organs or parts thereof are sterilized for the preparation of bone-cum-meat meal before leaving the slaughter house premises, subject to sub-paragraph (13) below.

13. Carcasses, organs or parts thereof condemned on account of anthrax shall be disposed of either by (i) complete incineration or (ii) thorough denaturing with prescribed denaturant in the manner prescribed in the foregoing paragraphs and also in accordance with the rules and regulations prescribed by the local authority.

14. Destruction of condemned carcasses, organs or parts thereof shall be carried out under the direct supervision of the Qualified Veterinary Doctor.

If in the opinion of the Qualified Veterinary Doctor a carcass, organ or part thereof is to be held back for further detailed examination, the carcass, organ or part concerned shall not be released till the examination in detail is completed by the Qualified Veterinary Doctor and it is declared thereafter by him as fit. When it is to be detained for detailed examination, the carcass, organ or part thereof shall be marked as "Held". If on subsequent inspection, the carcass, organ or part thereof is found to be unwholesome and unfit for human food, the Qualified Veterinary Doctor shall mark such a carcass, organ or part thereof as "condemned" and shall dispose it of as described in the foregoing paragraphs.

#### a. Sanitary and Hygienic Requirements for Meat processing units

Following Sanitary and Hygienic requirements shall be satisfied by the meat processing unit.

##### 1. Location:

1.1 Meat processing unit should be located in areas not subjected to regular and frequent flooding and free from objectionable odours, smoke dust and other contaminants;

1.2 Roadways and areas serving the meat processing unit which are within its boundaries or in its immediate vicinity should have a hard paved surface suitable for wheeled traffic. There should be adequate drainage and provision for cleaning;

1.3 Where appropriate, meat processing unit should be so designed that access can be controlled.

##### 2. Building and Facilities:

2.1 The meat processing unit should provide adequate working space for the satisfactory performance of all operations.

2.2 The construction should be sound and ensure adequate ventilation, good natural or artificial lighting and easy cleaning.

2.3 The meat processing unit should be laid out and equipped so as to facilitate proper supervision of meat hygiene including performance of inspection and control;

2.4 The meat processing unit should be of such construction as to protect against the entrance and harbouring of insects, birds, rodents or other vermin as well as the entry of environmental contaminants such as smoke, dust etc.

2.5 Buildings and facilities should be designed to provide separation by partition, location or other effective means, between those operations which may cause cross-contamination;

2.6 Meat processing unit should be laid out and equipped so as to ensure, that edible meat does not come into contact with floors, walls or other fixed structures, except those which are specifically designed for contact with meat;

2.7 The construction and lay out of any chilling room, freezing room, freezer store or freezer should satisfy the requirements of these rules;

2.8 In meat handling areas :

- Floors should be of waterproof, non-absorbent, washable non-slippery and made of nontoxic materials, without crevices and should be easy to clean and slope sufficiently for liquids to drain to trapped outlets;
- Walls should be of waterproof, non-absorbent, washable and nontoxic materials and should be light coloured. Up to a height of at least 1.5 metres, they should be smooth and without crevices, and should be easy to clean , space between walls and ceilings should be sealed and covered to facilitate cleaning;
- Ceilings should be so designed, constructed and finished as to prevent any accumulation of dirt and minimize condensation, mould development and flaking and should be easy to clean;
- Windows and other openings should be so constructed as to avoid accumulation of dirt and those which open should be fitted with insect screen. Screens should be easily movable for cleaning and kept in good repair. Internal window sills, if present, should be sloped to prevent use as shelves;
- Doors should have smooth, non-absorbent surfaces and where appropriate, be self-closing and close fitting; and
- Stairs, lift cages and auxiliary structures such as platforms, ladders, chutes, should be so situated and constructed as not to cause contamination of meat. They should be capable of being effectively cleaned. Chutes should be constructed with inspection and cleaning hatches;

2.9 The use of construction materials which cannot be adequately cleaned and disinfected such as wood, should be avoided unless its use would clearly not be a source of contamination, and

2.10 Office accommodation should be provided for the use of the meat inspection agency.

### 3. Sanitary Facilities:

#### 3.1 Water Supply:

3.1.1. Supply of potable water under pressure should be available with facilities for its storage, where necessary for distribution, and with protection against contamination;

3.1.2. An supply of hot potable water should be available at all times during working hours;

Note - This provision is intended to cover water for both cleaning purposes and the destruction of microorganisms (especially those pathogenic to man) on knives, utensils

etc., and coming into direct contact with meat. For cleaning purposes the temperature of the water should be 65 degree Celsius. The hot water for disinfection purposes should be at 82 degree Celsius and dispensed in such a way (e.g. in specially designed boxes near the working area) that blades of knives etc., can be submerged in the water for a contact time (no less than two minutes). Often this water supply is separate from other hot water supplies used for cleaning, hand washing etc. But if there is only one hot water supply the term "adequate" should mean that even at times where large amounts of hot water is used (e.g. during cleaning operations) the water supply from any tap in the establishment should not be decreased;

3.1.3 Ice should be made from potable water and should be manufactured, handled and stored so as to protect it from contamination; and

3.1.4 Steam used in contact directly with meat should be produced from potable water and contain no substances which may be hazardous to health or may contaminate the food.

3.2 Effluent and Waste Disposal - Meat processing unit should have an efficient effluent and waste disposal system. All effluent lines (including sewer systems) should be large enough to carry peak loads and should be constructed in such a manner as to avoid contamination of potable water supplies. Biological oxygen demand level shall be less than 1500, and for that an effluent treatment plant, if necessary may be installed.

3.3 Facilities for Storage of Waste and Inedible Material. - Facilities should be provided for the storage of waste and inedible material prior to removal from the establishment. These facilities should be designed to prevent access to waste or inedible material by pests and to avoid contamination of food, potable water and equipment or building.

3.4 Changing Facilities and Toilets.- Suitable and conveniently located changing facilities and toilets should be provided in all establishments. Toilets should be so designed as to ensure hygienic removal of waste matter. These areas should be well lit and ventilated and should not open directly on to food handling areas. Hand washing facilities with warm or hot and cold water with suitable hygienic means of drying hands should be provided adjacent to toilets and in such a position that the employee must pass them when returning to the processing area. Where hot and cold water are available, mixing taps should be provided. Where paper towels are used, a sufficient number of dispensers and receptacles should be provided near to each washing facility. Taps of non-hand operable type are preferable. Notices should be posted directing personnel to wash their hands after using the toilets.

3.5 Hand Washing Facilities in Processing Areas:

3.5.1 Adequate and conveniently located facilities for hand washing and drying should be provided wherever the process demands. Where appropriate, facilities for hand disinfection should be provided. The facilities should be furnished with properly trapped waste pipes leading to drains.

3.5.2 All rooms used for deboning, preparing, packing or other handling of meat should be equipped with adequate facilities for cleaning and disinfecting implements, conveniently located for the use of personnel during operations. These facilities are for use exclusively in the cleaning and disinfection of knives, steels, cleavers, saws and other implements.

3.5.3 All facilities for cleaning and disinfecting implements should be of such nature and sizes as to permit proper cleaning and disinfection of implements. These facilities should be constructed of corrosion - resistant materials and should be capable of being easily cleaned.



3.5.4 All facilities for cleaning and disinfecting of implements should be fitted with suitable means of supplying hot water in sufficient quantity at all times while meat is being handled in that part of the Meat Processing Unit.

3.5.5 Lighting - Adequate natural or artificial lighting should be provided throughout the meat processing unit. Where appropriate, the lighting should not alter colours and the intensity should not be less than

540 Lux (50 foot candles) at all inspection points.

220 Lux (20 foot candles) in work rooms.

110 Lux (10 foot candles) in other areas.

Light bulbs and fixtures suspended over meat in any stage of production should be of a safety type and protected to prevent contamination of meat in case of breakage.

3.6 Ventilation - Ventilation should be provided to prevent excessive heat, steam condensation, dust and to remove contaminated air. The direction of the air flow should never be from a dirty area to clean area. Ventilation openings should be provided with an insect screen or other protective enclosure of non-corrodible material. Screens should be easily removable for cleaning.

#### 4. Equipment and Utensils :

4.1 Materials - All equipments, implements and utensils used in establishments which come into contact with exposed meat and meat products should present a smooth impervious surface and be resistant to corrosion and should be made of material which is non-toxic, does not transmit odour or taste, is free from pits and crevices, is non-absorbent and capable of withstanding repeated exposure to normal cleaning and disinfection. Such equipment should be so constructed that they may be easily cleaned.

#### 4.2 Sanitary Design, Construction and Installation:

4.2.1 All equipments and utensils should be so designed and constructed as to prevent hygiene hazards and permits easy and thorough cleaning and disinfection and where practicable be visible for inspection. Stationary equipment should be installed in such a manner as to permit easy access and thorough cleaning.

4.2.2 Containers for inedible material and waste should be leak proof, constructed of non-corrosive metal or other suitable impervious materials which should be easy to clean or disposable and where appropriate, able to be closed securely; and

4.2.3 All refrigerated spaces should be equipped with temperature measurement or recording devices.

4.3 Equipment Identification - Equipment and utensils used for inedible material or waste should be so identified and should not be used for edible products.

#### 5. Hygiene Requirements :

5.1 Maintenance. The buildings, rooms, equipment and all other physical facilities of the meat processing unit, including drains, should be maintained in good repair and in orderly condition. Except for rooms where meat processing or cleaning operations are performed, they should be free from steam, vapour and surplus water.

5.2 Cleaning and Disinfection - Cleaning and disinfection should meet the following requirements :

(i) Amenities provided for the use of employee and the inspection service including changing facilities, toilets and the inspection office space should be kept clean at all times.

(ii) If rooms, intended and most of the time used for the handling, preparation, processing, packaging or storage of meat, are used for any other food preparation purposes, then cleaning and disinfection are necessary immediately before and after such use.

(iii) The temperature in rooms for boning out and trimming should be controlled and held suitably low, unless cleaning of equipment and utensils are carried out at least every four hours;

(iv) To prevent contamination of meat, all equipments, implements, tables, utensils including knives, cleaves, knife pouches, saws, mechanical instruments and containers should be cleaned at frequent intervals during the day and immediately cleaned and disinfected whenever they come into contact with diseased material, infective material or otherwise become contaminated. They shall also be cleaned and disinfected at the conclusion of each working day.

(v) If any skip or trolley or any container used in a department where edible material is handled, enters an area where inedible material is handled it should be cleaned and disinfected immediately before re-entering the edible department (vi) Immediately after the cessation of work for the day or at such other times as may be required, the floors and walls should be cleaned to remove contamination. Floor drains should be kept in good condition and repair with strainers in place; and

(vii) Roadways and yards in the immediate vicinity of and serving the meat processing unit should be kept clean.

5.3 Hygiene Control Programme.-It is desirable that each meat processing unit in its own interest designates a single individual whose duties are diverted from production, to be held responsible for the cleanliness of the meat processing unit. His staff should be a permanent part of the organisation or employed by the organisation and should be well trained in the use of special cleaning tools, methods of dismantling the equipment for cleaning and in the significance of contamination and the hazards involved. A permanent cleaning and disinfection schedule should be drawn up to ensure that all parts of the meat processing unit are cleaned appropriately and that critical areas, equipment and material are cleaned and designed for cleaning and/or disinfection daily or more frequently if required.

5.4 Storage and Disposal of Waste - Waste material should be handled in such a manner so as to exclude contamination of food or potable water. Precautions should be taken to prevent access to waste by pests. Waste should be removed from the meat handling and other working areas at intervals and at least daily. Immediately after disposal of the waste, receptacles used for storage and any equipment which has come into contact with the waste should be cleaned and disinfected. At least daily the waste storage area should also be cleaned and disinfected.

5.5 Dogs, cats or other pet animals should be not allowed to enter meat processing unit.

## 6. Pest Control

6.1 There should be an effective and continuous programme for the control of insects, birds, rodents or other vermin. Meat processing unit and surrounding areas should be regularly examined for evidence of infestation.

6.2 Should pests gain entrance to the meat processing unit or surrounding areas, eradication measures should be instituted. Control measures involving treatment with physical or chemical or biological agents should only be undertaken by or under direct supervision of personnel who have a thorough understanding of the potential hazards to health resulting from the use of these agents, including those which may arise from residues retained in the product. Such measures should be carried out in accordance with the recommendation of the official agency having jurisdiction and with the full knowledge of its inspector, and

6.3 Pesticides should only be employed if other precautionary methods cannot be used effectively. Only pesticides approved for use in the meat processing unit by competent authority should be used and the greatest care should be exercised to prevent any contamination of the meat equipment or utensils. Before pesticides are applied all meat should be removed from the room and all equipment and utensils should be thoroughly washed prior to being used again.

6.4 Handling and Storage of Hazardous substances - Pesticides or other substance which may represent a hazard should be labelled with a warning about their toxicity and use. Except as required for purpose of hygiene such substance which may contaminate meat packing material and ingredients should be handled and stored in a part of the meat processing unit which is not used for preparation, processing, handling, packing or storage of meat. They should be handled and dispensed only by authorised and properly trained personnel. Extreme care should be taken to avoid contamination of meat. However, materials employed in the construction and maintenance of an establishment may be used at any time with the approval of Food Safety Officer.

6.5 Personal Effects and Clothing : - Personal effects and clothing should not be deposited in meat handling areas.

6.6 Maintenance Tools - Cleaning and maintenance tools and products should not be stored in meat handling area.

#### 7. Personnel Hygiene and Health Requirements :

7.1 Medical examination - Persons who come into contact with meat in the course of their work should have a medical examination prior to their employment. Medical examination of a meat handler shall be carried out routinely and when clinically or epidemiologically indicated, at least once in 12 months.

7.2 Communicable Diseases - The management should take care to ensure that no person, while known or suspected to be suffering from, or to be a carrier of a disease likely to be transmitted through meat or while afflicted with infected wounds, skin infections, sores or with diarrhoea, is permitted to work in any area in any capacity in which there is any likelihood of such a person directly or indirectly contaminating meat with pathogenic microorganisms. Any person so affected should immediately report to the management that he is ill.

7.3 Injuries - Any person who is cut or injured should discontinue working with meat and until he is suitably bandaged should not be engaged in any meat processing unit in the preparation, handling, packing or transportation of meat. No person working in any meat processing unit should wear exposed bandage unless the bandage is completely protected by a water proof covering which is conspicuous in colour and is of such a nature that it cannot become accidentally detached. first aid facilities should be provided for this purpose.

7.4 Washing of Hands : Every person engaged in a meat handling area should wash his hands frequently and thoroughly with a suitable hand cleaning preparation under running potable water while on duty. Hands should always be washed before commencing work, immediately after using the toilets, after handling contaminated material and whenever else necessary. After handling diseased or suspect materials hands should be washed and disinfected immediately. Notices requiring hand-washing should be displayed.

#### 8. Personnel Cleanliness:

8.1 Every person engaged in an area in meat processing unit where meat is handled should maintain a high degree of personnel cleanliness while on duty, and should at all times while so engaged wear suitable protective clothing including head covering and foot wear, all of which should be washed unless designed to be disposed and which should be maintained in a clean condition consistent with the nature of the work in which the person is engaged.

8.2 Aprons and similar items should not be washed on the floor; and

8.3 Such items should not be left on equipment in the working area.

8.4 Personal Behavior : Any behavior which can potentially contaminate the meat such as eating, use of tobacco, chewing, spitting, should be prohibited in any part of meat processing unit used for the preparation, handling, packaging or transportation of meat.

8.5 Visitors: Every person who visits an area in any meat processing unit where meat is handled should wear clean protective clothing and head cover.

##### b) Sanitary & Hygienic Requirements for the Retail Meat Shops

For ensuring the hygiene and safety of meat being sold at retail meat shops, the following requirements should be followed under the supervision of the qualified Veterinary staff.

## 1. Location of Meat Shop

1. The meat shop / sale outlet should preferably be a unit of meat market located away from Vegetable, fish or other food markets and shall be free from undesirable odour, smoke, dust or other contaminants. Wherever a meat market is not available, individual meat shop can be set up considering the above factors, which have a direct bearing on the hygiene conditions of the premises and health of consumers.

(a) The minimum distance between the licensed meat shop and any place of worship should not be less than 50 meters;

(b) The condition of 100 meters distance will apply in case the premises situated directly opposite to the entry gate of religious place of any community.

2. All the meat shops located in the vicinity of religious places shall be fitted with black glass doors, which must be kept closed all times except in case of entry or exit. It must be the responsibility of the meat shop owners to maintain a high standard of hygiene not only inside the shops, but also in the way leading to the shops road pavements or other adjoining place, particularly for insanitary materials originating from the meat business for example, blood, part of offal, meat scraps etc.

## 2. Size of Meat Shops

2.1 Considering the constraints of commercial space in residential areas in concerned Panchayats / Municipalities the size of meat shops may vary according to the size of business and activities being carried out there in the meat shops.

2.2 The height of shop in all above categories of meat shops should be not less than 3 meters, while in case of air-conditioned meat shops, it should not be less than 2.5 meters.

## 3. Premises

3.1 The premises shall be structurally sound. The walls up to the height of minimum 5 feet from the floor level shall be made of impervious concrete material (e.g. glazed tiles or hygienic panels, etc.) for easy washing and cleaning purposes.

3.02 The floor should be made of impervious and non-slippery materials with a slope for easy cleaning and removal of filth, waste and dirty water. The slope of the floor shall not be less than 5 cm. for a floor of 3 meters.

3.03 All the fittings in the stall should be of non-corroding and non-rusting type.

3.04 All processing tables, racks, shelves, boards, etc. shall have zinc/aluminium/stainless steel/marble-granite top to facilitate proper cleaning.

3.05 A sign board indicating the type of meat sold shall be displayed prominently. Nothing else but meat should be sold at the premises.

3.06 The premises should have provision of sewer connection for drainage of wastewater.

3.07 There should be provision of continuous supply of potable water inside the premises. In case the water supply is from bore well the arrangement for softening of water for making the same potable shall be made in the premises and intermittent store arrangement should be made.

3.8 The door of the shop should be of self-closing type. The door of the shop should be of dark glass top and be kept closed. No carcasses should be kept in a manner so as to be seen by the public from outside.

#### 4. Ventilation

4.1 The meat shop should be ventilated with facility of cross ventilation and may be provided with at-least one electric fan and one exhaust fan.

4.2 The rails and hanging hooks, if provided for hanging carcasses, should be of non-corrosive metal. The non-corrosive hanging hooks for carcasses shall be 30 cm. apart and the distance between rails shall be 60 to 70 cm. depending upon the size of animals slaughtered and carcasses hanged.

#### 5. Equipment and Accessories

5.1 The meat shop should have suitable arrangement for fly proofing in the form of air-curtains, flytraps, etc.

5.02 It should have display cabinet type refrigerator of size for maintaining a temperature of 4 to 8 degrees C. or freezing cabinet if the meat is to be stored for more than 48 hours.

5.03 The weighing scales used shall be of a type which obviates unnecessary handling and contamination and the plate sketch of the scale shall be made of stainless steel or nickel coated

5.04 The knives, tools and hooks used shall be made of stainless steel. Sufficient cupboards or racks should be for storing knives, hooks, clothes and other equipments.

5.05 There should be a provision of geysers in all the meat shops to have hot water at a temperature not less than 82 degree C to clean the premises and equipment used in meat shop.

5.06 Washbasin made of stainless steel / porcelain shall be provided with liquid soap dispenser or other soap and nail brush for thorough cleaning of hands.

5.07 The chopping block should be of food-grade synthetic material, which does not contaminate the meat. If the block is of wooden it should be of hardwood trunk, which is solid enough and should not contaminate the meat.

5.8 A waste bin with a pedal operated cover shall be provided in the premises for collection of waste material.

#### 6. Transportation

6.1 The transportation of carcasses from the slaughter house to the premises shall be done under hygienic conditions in boxes of adequate size linked with zinc/aluminium/stainless steel or wire gauze meat safes, which must be washed daily.

6.2 The transportation of carcasses from the slaughter house to the meat shops should be done in insulated refrigerated vans. Under no circumstances, carcasses will be transported in vehicles used for commuting of human beings, or in an exposed condition.

#### 7. Pest Control

7.1 The meat shop should have an effective and continuous programme for control of insects, rodents or other vermin within the premises. The surrounding area of the shop should also be free from insects, birds, rodents and other vermin.

7.02 The pest control measures adopted by the owner of shop should be kept as a record in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration/Corporation at the time of inspection.

7.03 Chlorinated hydrocarbons, organo-phosphorus compounds and synthetic perithroids, rodenticides etc should neither be used as pesticide nor shall be stored at the meat shop.

7.4 No live animals or birds should be allowed inside or adjacent to the meat shops.

## 8. Personnel Hygiene

8.1. Every person employed for meat handling at the meat shop shall be medically examined annually by a authorized registered medical practitioner and examination shall include examination of sputum and x-ray of the chest for tuberculosis. The medical examination shall also include examination of stool for protozoal and helminthic infestations for those parasites, which are transmitted by ingestion, and also for the presence of enteropathogenic Escherichia coli, Salmonella, Shigella species and Vibrio cholera.

8.02. A certificate / records of medical fitness of all workers handling meat should be kept as a record in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration / Corporation at the time of inspection.

8.03. No worker suspected to be suffering from fever, vomiting, diarrhoea, typhoid, dysentery or boils, cuts and sores and ulcers (however small) shall be permitted to work in the meat shops.

8.04 All the workers of the meat shop shall keep their finger nails short and clean and wash their hands with soap or detergent and hot water before commencement of work and after each absence, especially after using sanitary conveniences.

8.05. Eating, spitting, nose cleaning or the use of tobacco in any form or chewing betel leaves shall be prohibited within the premises of meat shop processing, packing and storage area of the unit. "No smoking "and "No Spitting "boards shall be prominently displayed in the shop.

## 9. Sanitary Practices

9.1 The chopping block should be sanitized daily by covering its top with sea-salt, after cleaning it with hot water at close of business activity.

9.02 The floor should be washed with appropriate disinfectant / detergent / sanitizer at the start and close of the business each working day.

9.03 There should be high standard of cleanliness and tidiness in the working area of shop with no organic or other material lying on the floor.

9.04 The refrigerated / freezing cabinet should be regularly cleaned and well maintained. 9.05 Slaughtering of animal / birds inside the shop premises should be strictly prohibited. 9.06 The carcasses shall not be allowed to be covered with wet-clothes.

9.07 Wholesome meat obtained from the authorized slaughter house shall only be sold at the meat shops and a record thereof shall be kept in the premises to be shown to any officer of the concerned Panchayats / Municipalities responsible for local administration Corporation at the time of inspection.

9.08 Waste bins should be emptied, transported for disposal as per the arrangements made by the concerned Panchayats / Municipalities and waste bin / dhalau (burial pits) shall be treated daily with a disinfectant.

9.9 The premises shall not be used for residential purposes nor it shall communicate with any residential quarter. No personal belonging like clothing, bedding, shoes etc. shall be kept in the premises. Only dressed carcasses of clean meat shall be stored at the premises.

9.10 Hides, skins, hoofs, heads and unclean gut will not be allowed to be stored in the premises at any time.

9.11 The chopping instruments should be cleaned with hot water at a temperature of 82 degree C.

9.12 The preparation of food of any type inside the meat sale outlet should be strictly prohibited.

9.13 The meat obtained from unauthorized sources or unstamped meat is liable to be confiscated and destroyed.

9.14 Waste of the meat shop to be disposed of packed in heavy polythene bags in dhalaos (burial pits).

#### 10. Other Requirements

10.1 The prepared meat shall be packed in waxed paper and then placed in polyethylene bags or packed directly in bags made of food grade plastics.

10.02 Failure to comply with any of these instructions may entail legal action against the defaulters, and even result in cancellation of license by the appropriate authority of the concerned Panchayats/Municipalities/Corporation.

10.03 No Objection Certificate from law and order point of view to be obtained from police department or the concerned Panchayats/Municipalities/Corporation before grant of license for buffalo meat and pork shop.

10.04 The concerned Panchayats/Municipalities responsible for local administration in the country shall appoint qualified Veterinary staff for the meat inspection (Ante mortem and Post mortem inspection) or if regular staff cannot be made available or deployed for the purpose shall make contractual arrangements for availing the services of qualified Veterinary staff for meat inspection available with the Animal Husbandry Depts. of the concerned state/UT in the country.

10.05 Retail meat shop license shall be granted subject to fulfillment of all the above technical and administrative instructions in relation to the trade.



Specific Hygienic and Sanitary Practices to be followed by Practices to be followed by  
Food Business Operators engaged in catering / food service  
establishments

In addition to Part-II the Catering/ food Service establishment in which food is being handled, processed, manufactured, stored, distributed and ultimately sold to the customers and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standard as specified below.

It includes premises where public is admitted for repose or for consumption of any food or drink or any place where cooked food is sold or prepared for sale. It includes:

- (a) Eating Houses
- (b) Restaurants &  
Hotels (c) Snack  
Bars,
- (d) Canteens (Schools, Colleges, Office,  
Institutions) (e) Food Service at religious  
places
- (f) Neighbourhood Tiffin Services /  
dabba walas (g) Rail and airline  
catering
- (h) Hospital catering

## I. GOOD MANUFACTURING PRACTICES FOR WHOLE PREMISE

### I. Food Preparation Areas

The following rules apply to rooms where food is prepared. There will be no smoke nuisance in the food preparation area. Wherever cooking or frying of any kind is being done, a chimney having appropriate suction capacity as per the size of the kitchen has to be installed prior to start of business.

### II. Hand washing facilities and toilets

(1) Adequate number of wash-hand basins made of porcelain/stainless steel shall be provided along with soap to wash hands, with hot and cold running water, and materials for cleaning hands and drying them hygienically. Clean and dry towels shall be kept for the use of customers.

(2) Separate sinks must be provided, where necessary, for washing raw food and cleaning equipment.

(3) Sinks with a draining board, detergent and hot water shall be provided to ensure proper cleaning of utensils, crockery and cutlery there will be a separate place for washing pots and pans.

### 2. Changing facilities:

Facilities for staff to change their clothes, where necessary must be provided

## II. GOOD FOOD HYGIENE PRACTICES

### 1. Cleaning

Food areas and equipment between different tasks, especially after handling raw food shall be cleaned. The surface shall be thoroughly cleaned in case if somebody spills food / water / drink.

A systematic cleaning schedule and instructions has to be developed by the FBO.

Food handlers should strictly follow the systematic cleaning schedule to make sure that surfaces and equipment are cleaned when they need to be.

The schedule should include:

what needs to be cleaned

how often it needs to be

cleaned how the cleaning

should be done Cleaning

instructions should indicate:

what cleaning products should be used

how the products should be stored ( away from raw, cooked,

packed food) and used how much they should be used or diluted

how long that should be left in contact with the surface (following the manufacturer's instructions)

### 2. Raw materials

1. Raw materials shall be purchased from reliable and known dealers and checked for visible deterioration & off- odour.

2. There should be no physical hazards and foreign body contamination.

1. Raw paste, sauces etc. should be stored in properly covered containers made of food grade material and checked regularly for fungal growth, deterioration etc.

Preparation of fruits/ vegetables:

(1) Fruits and vegetables that have been protected from cross-contamination and properly conserved should be used.

(3) Whole fruits and vegetables should be washed in potable water before being cut, mixed with other ingredients. Uncooked, ready-to-eat fruits & vegetables should be with 50 ppm chlorinated water before cutting, peeling or serving.

(4) Fruits and vegetables should be peeled, squeezed and/or cut, as appropriate, with clean equipment/ utensils made of non-absorbent food grade materials.

(5) Previously prepared fruits/vegetables should be kept in clean and properly covered food grade containers under refrigeration or at a maximum temperature suitable for the product in question.

Preparation of Non-veg. Products:—

(1) Raw meat and processed meat should be separated from other foods; items and surfaces.

(2) Separate items (e.g. cutting boards, dishes, knives) and preparation area for raw meats and poultry and marine products should be used to avoid cross contamination of food.

(3) Hands should be thoroughly washed before switching from preparing raw meat or poultry or marine products to any other activity.

(4) Ensure proper cooking of all non vegetarian products.

(5) Used surfaces should be washed with antibacterial cleaning agent, rinsed properly with water and sanitized after preparing raw meat/poultry.

(6) Ensure that frozen products are thawed as per point no. 9 under special requirements for high risk foods.

### 3. Cooking

(a) The preparation/ processing/ cooking should be adequate to eliminate and reduce hazards to an acceptable level which might have been introduced at the raw food level.

(b) The preparation/ processing/ cooking methods should ensure that the foods are not re- contaminated.

(c) The preparation/ processing/ cooking of veg. & non-veg. products should be segregated.

(d) Whenever cooking or reheating of food is done, it should be hot all the way through, It is especially important to make sure that food is cooked thoroughly.

(e) Re-use of cooking oil should be avoided.

(f) Food hot held at 60°C and cooled at 21°C within 2 hrs or cooled to 5°C in 4 hours and thereafter refrigerated might be reheated.

(g) Reheated food must reach a minimum internal temperature of 74°C. When using microwave to reheat, food must reach a minimum temperature of 74°C and stayed covered for 5 mins to allow the temperature to equilibrate.

(h) Reheat food quickly in ovens, steamer, microwave oven and/or on top of range in a steam kettle.

(i) Never reheat food on a steam table, in a bain marie, in a bun drawer and/or under a heat lamp.

(j) In case of reheating of oil use maximum three times to avoid the formation of trans fat. It is ideal to use once if possible.

### 4. Chilling

Semi cooked or cooked dishes and other ready-to-eat foods such as prepared salads and desserts having short shelf life should not be left standing at room temperature.

Chilled food intended for consumption should be cold enough.

Food items that need to be chilled should be put straight away into the fridge. Cooked food should be cooled as quickly as possible and then put it in the fridge. Chilled food should be processed in the shortest time possible.

Fridge and display units should be cold enough and as per requirement.

In practice, fridge should be set at 5°C to make sure that food is kept in chilled condition. Also, fridge and display units should be maintained in good working condition to avoid food spoilage and contamination.

#### 5. Cross-contamination

Following should be done to avoid cross - contamination.

Raw food/ meat/poultry and ready-to-eat foods should be kept separate at all times. Hands should be thoroughly washed after touching raw meat/poultry.

Work surfaces, chopping boards and equipments should be thoroughly cleaned before the preparing of food starts and after it has been used.

Separate chopping boards and knives for raw fruit/ vegetables/ meat/poultry and ready-to-eat food should be used.

Raw meat/poultry below ready-to-eat food should be kept in the fridge. Separate fridge for raw meat/poultry should be kept.

Staff should be made aware how to avoid cross-contamination.

### III. PERSONAL HYGIENE

1. High standards of personal hygiene should be maintained.

2. All employees handling food should wash their

hands properly: before preparing food

after touching raw food or materials, specially meat/poultry or eggs

after breaks

after using the toilet

after cleaning the raw materials or utensils / equipments

3. Street shoes inside the food preparation area should not be worn while handling & preparing food.

4. Food handlers should ensure careful food handling & protect food from environmental exposure.

5. Food handler should not handle soiled currency notes to avoid cross contamination.

(1) The vehicle/transportation being used to carry cooked/prepared/processed food should be clean and, dedicated for this purpose and should not carry anything else.

(2) Time required for transportation should be minimum, to avoid microbial proliferation.

(3) Cooked food served hot should be kept at a temperature of at least 60°C to prevent microbial growth.

(4) Cooked food to be served cold should be kept below 5°C to prevent growth of pathogen

(5) All foods during transportation must be kept covered and in such a way as to limit pathogen growth or toxin formation by controlling time of transportation, exposure, temperature control and using safe water for cleaning etc.

(7) Handling of food should be minimal. It should be ensured that utensils, crockery, cutlery and specially hands of the food handlers/seller are clean and sanitized.

(8) All surplus food and unused thawed food should be discarded.

(9) Food to be kept for cold storage should be distributed in small volumes to ensure uniform cooling.

(10) Dry, fermented and acidified foods should be stored in cool and dry place.

(11) All packaged food viz. sterilized milk, bottled beverages, canned foods etc. should be stored properly during transportation to ensure that seals remain intact and undamaged.

1. It is very important to store food properly for the purpose of food safety. Following things must be ensured: Foods should be cooked, stored and kept at right temperature

Raw meat/poultry should be stored separately from other foods

Veg. foods should always be stored above non-veg. foods and cooked foods above uncooked foods on separate racks in the refrigerator.

Storage temperature of frozen food should be  $-18^{\circ}\text{C}$  or below.

Cooked food to be eaten later should be cooled quickly, and kept it in the refrigerator - It is advisable to put date on food packages or containers, using stickers or any other way of identification, before keeping inside the refrigerator to keep track of food prepared date wise and use accordingly to minimise wastage.

Storage instructions over food packaging should be followed.

Dried foods (such as grains and pulses) should be stored off the floor, ideally in sealable containers, to allow proper cleaning and protection from pests.

Stock rotation

The rule for stock rotation is FIFO (first in, first out) to make sure that older food is used first. This will help to prevent wastage.

## VI. SPECIAL REQUIREMENTS FOR HIGH RISK FOODS

This section deals selectively with varieties of food which are high risk as per HACCP and may need special attention. The type of foods covered here are as follows:

1. Cut fruits/salads, fresh juices and beverages

(1) Fresh fruits /vegetables cut or juiced should be used immediately; however, short storage should be only under refrigeration in sanitized and properly covered vessels.

(2) Water used in beverages should be potable.

(3) Ice used should be made of potable water only.

(4) Food or beverages should not be stored in the same container used to store the ice intended for consumption.

(5) Juice concentrates must be checked regularly for any fungal growth / change of colour, odour or gas formation in the bottle.

(6) Juice dispensing machine should be cleaned and rinsed with water regularly.

## 2. Confectionery products

(1) Prepared confectionery products should be kept in airtight containers and displayed hygienically.

(2) Cream to be used should be stored covered under refrigeration.

(3) Finished products should be refrigerated with proper labels indicating date of expiry.

(4) Products should be properly wrapped/ packaged after proper cooling.

## 3. Meat, poultry & fish products

(1) Non veg. products/raw materials should be purchased (chilled products temperature should be at 5°C or below and frozen products at -18 deg C or below) from authorized/ licensed slaughter houses/vendors.

(2) Processing area should be cleaned and disinfected promptly.

(3) Preparation and processing of meat, poultry and marine products should be separate.

(4) Non-veg. products are washed with potable water before use.

(5) Non-veg. products are cooked thoroughly (core temperature 75°C) for at least

15 seconds or an effective time/temperature control e.g. 65 °C for 10 minutes, 70 °C for 2 minutes.

(6) Non-veg. products should be stored covered in refrigerator below the veg. products.

(7) Raw and cooked products should be stored physically separated with cooked products at the top.

(8) All refuse/waste should be promptly removed from preparation area.

## 4. Water based chutneys, sauces etc.

- (1) All fruits/vegetables should be washed properly before processing.
- (2) Clean and disinfected chopping boards/grinding stone/machine should be used.
- (3) Personal hygiene of food handlers need to be ensured.

- (4) Water used in the chutneys should be safe and potable.
- (5) Only permitted food additives should be used, if required, and be added in recommended quantities only.

(6) Spoiled products should be discarded immediately after confirmation of spoilage (change in colour/ texture/ odour).

- (7) Sauces and chutneys should be stored in glass/food grade plastic containers with proper lids.
- (8) Clean and intact containers should be used for storing sauces and chutneys.
- (9) Sauces and chutneys should be stored in refrigerator when not in use.
- (10) Perishable/uncooked chutneys should be consumed immediately.

#### 5. Foods transported to point of sale from the point of cooking

- (1) Food should be reheated more than 74°C before consumption.
- (2) Food should be consumed or served for consumption within 4 hours of reheating.

#### 6. Foods with Gravy

- (1) Food products should not be stored at room temperature for more than 2 hours during display or sale.
- (2) For prolonged storage, foods should be stored in refrigerators or kept for hot holding at or above 60°C.
- (3) No water should be added after cooking/reheating/boiling.

#### 7. Fried Foods

- (1) Good quality / branded oils/fats should be used for food preparation, frying etc.
- (2) Use packaged oil only.
- (3) Use of oils with high trans fats (like vanaspati) should be avoided as far as possible.
- (4) Re-heating and reuse of oil should be avoided as far as possible. Avoid using leftover oil wherever possible.

## 8. Adding ingredients after cooking

- (1) Ingredients added to the cooked food should be thoroughly washed/ cleaned.
- (2) After cooking or post cooked mixing, the food should be used immediately.
- (3) Garnishes etc., if added, should be prepared using fresh, thoroughly washed and freshly cut vegetables and used immediately.

Reuse of cooked food is not recommended.

Potentially hazardous foods and high risk foods such as hollandaise sauce, refried beans, scrambled eggs and cut fruits are to be discarded.

All food at banquet setting that has been on display are to be discarded.

Food kept at more than 60°C during service may be reused, only by following the procedure indicated below:

never mix leftover with fresh product. If in doubt, throw out the product. Reheat leftover food temperature to more than 74°C

## 9. Thawing of Frozen Products.

### *Thawing-In Refrigerator*

Items being thawed should be labelled with defrost date to indicate the beginning of 2nd shelf life.

Thaw food at 5°C or less.

Temperature controlled thawing is recommended for meat, poultry and fish.

Any other means of thawing apart from running water and microwave is not allowed.

### *Thawing In Running Water*

*Items being thawed should be labelled with date and time.*

Thawing in running water advisable shellfish and seafood.

Thawing in running water should not exceed 90 minutes.

Ensure air break between tap and water.

Use sanitized food grade container.

Sink must not be used for other purposes during thawing

After thawing, product must be used within 12 hours.

Cold running water (from mains) should be at 15°C or less

*March*  
*01/02/03 David*