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Code of hygienic practice for fresh meat

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Foreword

This Ethiopian Standard has been prepared under the direction of Agricultural and Food Technology Technical Committee and published by the Quality and Standards Authority of Ethiopia (QSAE)

In the preparation this Ethiopian Standard references have been made to the following:

- Codex Alimentarius vol. C Recommended international code of hygienic practice for fresh meat.

- Indian Standard 1743-1973 specification for mutton and goat meat canned in brine. Indian Standard Institution

Acknowledgement is made for the use of information from the above publications.

Code of Hygienic practice for fresh meat

1 Scope

This Code of Hygienic Practice applies to fresh meat intended for human consumption, whether sold direct to the consumer in that form or after further processing. It contains the minimum requirements of meat hygiene including the transport of meat, Inspection of slaughter animals and Meat.

2 Normative references

The following Ethiopian Standard contains provisions, which through reference to this text constitute provisions of this Ethiopian Standard. At the time of publication the editions indicated were valid. All standards are subject to revision, and possibility of applying the most recent editions of the Ethiopian Standard indicated below. Registers of currently valid standards are maintained in the Quality and Standards Authority of Ethiopia.

ES 261: 2001, drinking water- specification

ES 588: 2001 Hazard analysis critical control point

ES 1116:2005 Code for Ante-mortem and Post-mortem Inspection of Slaughter Animals and for Ante-mortem and Post-mortem Judgement of Slaughter Animals and Meat

1 3 Definitions

For the purposes of this Code the following definitions shall apply

3.1 **abattoir**

shall mean any premises that is approved and registered by the controlling authority in which animals are slaughtered and dressed for human consumption

3.2. **approved for human consumption**

shall mean meat that has been inspected and passed without any restrictions

3.3. **approved for distribution in restricted areas**

shall mean meat that has been inspected and approved for human consumption with the requirement that the distribution shall be limited to restricted areas, for reasons of animal health protection

3.4. **brand**

shall mean any mark or stamp approved by the controlling authority and also includes any tag or label bearing such mark or stamp.

3.5 **carcase**

shall mean the body of any slaughtered animal after bleeding and dressing

3.6
cleaning

shall mean the removal of objectionable matter

3.7
condemned

in relation to a slaughter animal or meat, shall mean inspected and judged as, or otherwise officially determined to be, unfit for human consumption and requiring destruction. Total condemnation shall mean the entire carcass and offal are condemned (Judgment symbol T). Partial condemnation shall mean only parts of the slaughtered animal are condemned, while others are judged otherwise (Judgment symbol D for the condemned diseased or defective parts).

3.8
Conditionally approved for human consumption

shall mean meat that has been inspected and approved for human consumption subject to it being treated under official supervision in order to make it safe for human consumption and to avoid risk to animal health, prior to it being branded and distributed .

3.9
Contamination

shall mean objectionable matter, and includes substances and/or microorganisms that make fresh meat unsafe and/or unwholesome.

3.10
Controlling authority

shall mean the official authority charged by the government with the control of meat hygiene, including meat inspection

3.11
Detained

shall mean under the control and security of the controlling authority pending final judgement.

3.12
Disease or defect

shall mean

- (a) Related to organs: the organ or organs in which pathological changes or other abnormalities are found;
- (b) Related to parts of an organ: the parts of an organ in which pathological changes or other abnormalities are found and which may be separated from the other parts of the organ which
Are not affected;
- (c) Related to parts of the carcass: the parts of the carcass in which pathological changes or
Other abnormalities are found and which may be separated from the other parts of the carcass, which are not affected. '

3.13
Disinfection of plant, facilities and equipment

shall, mean the reduction, of the number of micro organisms to a minimum by means of hygienically satisfactory chemical agents and/or physical methods, without adversely affecting the meat,

3.14
Dressed or dressing

shall mean,

(a) in relation to slaughtered animals except for pigs, sheep and lambs, goats and kids, shall mean the removal of head, hide or skin, viscera (including or not including kidneys), genital organs, urinary bladder and feet up to the carpal and tarsal joints, and animals that have calved or are in advanced pregnancy; and

(b) in relation to slaughtered pigs, shall mean the removal of hair and bristles or skin, claws, eyelids, viscera (including or not including kidneys), genital organs, urinary bladder, animals that have farrowed or are in advanced pregnancy, and the external acoustic duct unless in respect of that part an alternative effective form of cleaning is carried out; and

(c) in relation to sheep and lambs, goats and kids shall mean the removal of the head (except in the case of young lambs and young kids), the pelt or skin, including that of the head, viscera (including or not including the kidneys), genital organs, urinary bladder and feet up to the carpal and tarsal joints, and udders of lactating animals, animals that have given birth or are in advanced pregnancy;

(d) in relation to cattle, pigs camels and solipeds includes where necessary splitting of the carcass. To split shall mean dividing the carcass lengthwise on the medial line.

3.15

Edible offal in relation to slaughtered animals

shall mean offals that have been passed as fit for human consumption

3.16

Emergency slaughter

shall mean slaughter by necessity of any animal which has recently suffered accident or injury, or which is affected by a disease, which does not necessarily call for total condemnation at meat inspection, which however is likely to deteriorate unless slaughter takes place immediately.

3.17

Establishment

shall mean any premises other than an abattoir that is approved authority in which fresh meat is prepared, handled, packed or stored.

3.18

Fit for human consumption in relation to meat

shall mean meat that has been passed by an inspector as safe and wholesome, unless found unwholesome in subsequent examinations, which may include laboratory tests.

3.19

Fresh meat

shall mean meat that has not yet been treated in any way other than by modified atmosphere packaging or vacuum packaging to ensure its preservation, except that if it has been subjected only to refrigeration, it continues to be considered fresh for the purposes of this Code.

3.20

Inferior meat

shall mean meat that has been inspected and judged as safe for human consumption but deficient in its organoleptic properties and branded accordingly. Deficient organoleptic properties are those, which deviate from the standard accepted for the marketing of normal meat

3.21

Inedible

shall mean inspected and judged to be, or otherwise officially determined to be, unfit for human consumption but not requiring destruction

3.22

Inspector

shall mean a properly trained officer appointed by the controlling authority for the purpose of meat inspection and control of hygiene, and includes a veterinary inspector. The supervision of meat hygiene, including the inspection of meat, shall be under the responsibility of a veterinary inspector.

3.23

Meat

shall mean the edible part of any slaughter animal slaughtered in an abattoir and includes edible offal

3.24

Official field veterinarian

shall mean a veterinarian who exercises official veterinary functions in the field on behalf of the Government

3.25

Potable water

shall mean water that is pure and wholesome at the point of usage in accordance with requirements contained in the E261:2001 drinking-water specification

3.26

Protective clothing

shall mean special garments intended to prevent the contamination of meat and used as outerwear by persons in an abattoir or establishment, and includes head coverings and footwear

3.27

Residues

mean residues of veterinary drugs pesticide residues and contaminants

3.28

Risk analysis

includes risk assessment, risk management and risk communication, all of which are essential to the decision making process that determines acceptable levels of risk, and the implementation of those decisions

3.29

Safe and wholesome

refers to meat that has been passed as fit for human consumption using the criteria that it:

- a) Will not cause food borne infection or intoxication when properly handled and prepared with respect to the intended use
- b) Does not contain residues in excess of established limits
- c) is free of obvious contamination
- d) is free of defects that are generally recognized as objectionable to consumers
- e) has been produced under adequate hygiene control; and
- f). has not been treated with illegal substances as specified in relevant national legislation.

3.30

Slaughter

shall mean killing of a slaughter animal for the purpose of human consumption and includes bleeding slaughter animal shall mean any animal lawfully brought into an abattoir for slaughter.

3.31

Slaughter under special precautions

shall mean slaughter where special precautions have to be observed because of findings at ante-mortem inspection, farm records or instructions given by the official field veterinarian

3.32.***Viscera***

shall mean the organs of the thoracic and abdominal cavity

3.33***Veterinary Inspector***

shall mean an inspector who is professionally qualified as a veterinarian

3.34***Offal in relation to slaughtered animals***

shall mean any edible part of the animal other than carcase

4 Principles and Objectives of this Code

4.1. Ante-mortem and post-mortem inspection of slaughtered animals and the maintenance of hygienic practice is carried out to ensure that fresh meat produced for human consumption is safe and wholesome.

4.2. Rules of meat inspection and hygienic practice that are described in this and its associated code of practice provide the requirements that have been developed from current scientific knowledge and practice.

4.3 Risk analysis based on accepted scientific methodology shall be undertaken wherever possible, so as to improve current knowledge. These analyses will promote the following principles of meat hygiene

4.3.1 there shall be consistently applied food safety standards so as to assure a safe and wholesome meat supply; if an adequate food supply is threatened in some local trade situations, safety standards may include treatment sufficient to remove any hazard;

4.3.2. Ante-mortem and post-mortem inspection procedures shall be appropriate to the spectrum and prevalence of diseases and defects present in the particular class of slaughter livestock being inspected

4.3.3 Process control systems shall limit microbial contamination of meat to as low a practicable level as possible, and prevent subsequent growth to levels that may constitute a hazard.

4.3.4 As per ES 588:2001 Hazard Analysis Critical Control Point (HACCP) under the control and supervision of the controlling authority provides a scientific approach to food safety and wholesomeness throughout the production, processing and distribution of fresh meat, and the HACCP approach shall wherever possible, together with other quality assurance procedures, be utilized in the application of this Code; and

4.3.5. Where risk analysis has shown that safety is not compromised by the failure to remove a defect of a type specified by the controlling authority, and any necessary product identification procedures are in place, the controlling authority shall allow production for the end use it specifies.

4.4. The responsibility for production of safe and wholesome meat shall be shared by industry and the controlling authority. Industry personnel shall be involved as widely as possible in voluntary quality assurance systems and in the monitoring and control of meat hygiene, with supervision and audit by the controlling authority to ensure compliance with requirements. Training and education programmes involving both industry and the controlling authority are necessary to meet this objective.

4.5 The controlling authority shall be adequately resourced, have the legal power to enforce requirements necessary to produce meat that is safe and wholesome, and be independent of the management of the establishment and of other industry interests. There shall be a legal obligation on managers to comply with meat hygiene and inspection instructions and to provide such information and assistance as may be reasonably required by the controlling authority.

4.6 In meeting the goal of reducing meat borne hazards, the controlling authority shall maintain cost effective and efficient allocation of resources.

4.7. Monitoring to identify meat borne hazards introduced at the point of production is an important component of a meat hygiene programme. Knowledge of the health status of livestock presented for slaughter, as well as of food borne diseases occurring in human beings, is important for the application of control measures and requires an adequate system for data collection.

4.8 Meat hygiene regulations shall be scientifically based shall protect the health of consumers and facilitate fair practices in the international trading of meat. Policies of equivalence, for countries or parts of countries, that provide the same safety and wholesomeness guarantees remove the necessity of replicating individual country requirements or applying identical procedures.

4.9. The controlling authority shall facilitate adoption of new technologies and developments, provided they are consistent with the safe and wholesome production of fresh meat.

4.10. Controlling authorities shall promote integrated food safety practices, taking into account the entire spectrum of food safety concerns and knowledge. This shall be combined with international cooperation in food safety programmes.

4.11 The objectives of this Code are to ensure:

4.11 1. Hygienic practices during animal production and transport of animals to slaughter;

4.11 2. Availability of information on hazards that may be present in slaughter animals;

4.11 3. Hygienic facilities and equipment for holding, slaughter, dressing and further processing, storage and distribution;

4.11 4. Hygienic practices during holding, slaughter, processing, storage and distribution; and

4.11 5. Provision of adequate facilities for inspection activities.

5. Animal production for fresh meat

5.1 The controlling authority shall encourage all aspects of the health management of food animals that improve the safety and wholesomeness of fresh meat produced for human consumption.

5.2 The conditions under which animals are raised for meat production shall be conducive to the production of meat that is safe and wholesome and full consideration needs to be taken of the environment in which the animals have been raised or through which they have moved.

5.3 Systematic monitoring and surveillance of the *health status of the* population, control over animal and plant treatments to ensure the absence of harmful residues in meat, *and the proper disposal of animal wastes are of* particular importance. The controlling authority also shall have the ability to prevent or control the movement of animals to abattoirs from areas *under sanitary* restriction.

5.4 Monitoring of the health status of slaughtered animals allows accumulation of information that will assist in the efficient application of particular dressing and meat inspection systems. Meat inspection judgments will also be enhanced. The full benefit of such information will only be realized if there is an identification system linking animals with their place of production and an efficient information transfer system.

5.5 There shall be in place, applying to areas where slaughter animals are produced and through which they pass en-route to an abattoir, a government administered regulatory programme mandating measures related to the health of animals and the safety and wholesomeness of meat derived from those animals. The regulatory programme shall be soundly based in law and shall include measures to:

5.5.1. Prevent the entry of exotic diseases of public health or animal health importance; and

5.5.2. Provide surveillance for endemic diseases of significant public health or animal health importance, and apply control and/or eradication programmes as appropriate.

5.6 There shall be in place, applying to areas where slaughter animals are produced and through which they pass en-route to an abattoir, a government administered regulatory programme mandating measures to control the use of chemical substances (such as veterinary drugs, pesticides, and other agricultural chemicals) or contaminants that may give rise to harmful levels of residues or contaminants in fresh meat. Systematic monitoring and surveillance to test the effectiveness of the regulatory programme is an essential component.

5.7 Animals intended for slaughter shall at all times be raised according to good animal husbandry practices. They shall not be fed feedstuffs:

5.7.1. Capable of recycling human or animal pathogens unless precautions are taken to minimize this risk; or

5.7.2. that contain chemical substances (such as veterinary drugs, pesticides and other agricultural chemicals) or contaminants at levels that could result in residues or contaminants in fresh meat at greater than maximum levels as adopted by the Codex Alimentarius.

5.8 In intensive animal production systems where active disposal is carried out, the method of disposal shall not constitute a hazard to public or animal health, and shall be environmentally sound.

5.9 There shall be in place a system capable of reliably identifying, back from an abattoir, the place of production of slaughter animals.

Controlling authorities shall where applicable encourage the use of HACCP systems in all aspects of food production, and actively utilize the data generated from such systems for regulatory purposes.

5.10 Where the owner or any other person has reason to believe that, as a result of:

- a) any accident;
- b). any disease or defect;
- c) The administration of any drug or chemical; or
- d) Any treatment;

the meat derived from any animal might not be suitable for human consumption, that person shall not send the animal to an abattoir unless the animal is the subject of veterinary certification to the effect that it has been attended by a veterinarian who is of the opinion that it is suitable

be slaughtered for human consumption. However, irrespective of any certificate that may have been given, a veterinary inspector shall be the sole judge of whether an animal is fit for slaughter.

6 Transports of slaughter animals

6.1 Food animals need to be transported in such a way that they are not unduly contaminated or stressed, that the spread of pathogens is minimized, that the identification to place of production is maintained and that animal welfare considerations are met.

6.2 Construction and maintenance of means of transport

6.2.1 Livestock transport vehicles shall be so constructed that:

- a) animals can be loaded and unloaded easily and with minimal risk of injury;
- b) animals of different species, and animals of the same species likely to cause injury to one another, are physically separated during transport;
- c). soiling of animals by excreta deposited on the floor of vehicle is minimized by the use of floor grating or similar devices;
- d). ventilation is adequate;
- e). where they have more than one deck, animals conveyed on a lower deck are protected by an impervious floor to the deck above; and
- f). they can be readily cleaned and disinfected.

6.3 Vehicles used to transport animals to an abattoir shall be maintained in good repair. They shall be cleaned and if necessary disinfected as soon as practicable after animals have been unloaded.

6.4 Maintenance of identification

6.4.1 The transport of slaughter animals to an abattoir shall be in a manner that ensures their identification back to the place of production is not lost.

7 Requirements for animals presented for slaughter

7.1 The controlling authority shall have access to all information on the production history that is relevant to the processing and inspection of slaughter animals. Differential allocation of processing and inspection resources is dependent on acquiring detailed information on animals presented for slaughter.

7.2 A knowledge of the health and condition of the animals that comprise the raw material for meat production is important in determining optimal dressing and inspection procedures. Identification of animals both to their place of production and throughout their time at the abattoir is a prerequisite to adequate veterinary control and appropriate information systems are necessary to optimize the use of available data.

7.3 Identification of animals

7.3.1 While being handled and held on an abattoir prior to slaughter, all necessary measures shall be taken to ensure that the ability to identify slaughter animals back to their place of production is retained.

7.4. Identification of animals requiring special attention

7.4.1 Where a slaughter animal has been identified prior to its arrival at an abattoir or at ante-mortem inspection, or its carcase has been identified at post-mortem inspection or during dressing as requiring special attention, all necessary measures shall be taken to ensure that the animal or carcase and the information relating to it can be correlated.

7.5 Information systems and segregation at the abattoir

7.5.1 An effective system shall be in place to ensure that information concerning slaughter animals that is relevant to post-mortem inspection or to special dressing requirements, whether originating prior to arrival at the abattoir or from ante-mortem inspection, is conveyed to the inspector undertaking post-mortem inspection and, in the case of special dressing requirements, to those persons involved in dressing of carcasses.

8.6 Adequate rest for slaughter

8.6.1 Animals need to *be* rested prior to slaughter so as to optimize their physiological condition and ensure that *evidence of* any diseases or defects that may *be* present is not masked. Animals found to *be diseased or defective need to be* separated from others, to enable them to receive any special attention they require and to prevent cross contamination to normal animals or facilities.

8.6.2 Separation of different categories of animals within species allows better application of processing and inspection resources, and facilitates hygienic dressing. The level of cleanliness of animals prior to slaughter also has a significant effect on hygienic slaughter and dressing.

8.6.3 Slaughter animals shall be adequately rested prior to being slaughtered.

8.6.4 Animals that have been identified as being affected by any disease or defect that affects, or might affect, the suitability of their meat for human consumption, shall be segregated from other animals.

8.6.5 If during the ante-mortem inspection a disease or defect has been detected that does not prevent an animal from being slaughtered for human consumption, it shall be identified and released for slaughter and post-mortem veterinary inspection.

8.6.6 Groups of animals that are found to be normal at ante-mortem inspection but that are of different categories with respect to age, species and system of production shall be slaughtered and dressed as separate lines.

8.6.7 Any animal that is in an unreasonably dirty condition shall be cleaned to the extent necessary to lessen the risk of contamination of meat and the slaughter and dressing areas before it is allowed to enter the killing floor.

8.7 Veterinary responsibility

8.7.1 All animals shall be inspected ante-mortem. A veterinary inspector shall have the final responsibility as to fitness for, and any conditions applying to, slaughter of animals for the production of fresh meat.

8.7.2 The ultimate decision as to whether or not an animal may be slaughtered and dressed in an abattoir, and any conditions applying to such slaughter and dressing, shall rest with a veterinary inspector.

9 Abattoir and establishment plant and facilities

9.1 Abattoir and establishment plant and facilities for holding, slaughter, dressing, further processing and distribution shall provide an environment that allows the application of consistently applied minimum food safety requirements. The structure of the abattoir or establishment and the equipment used shall limit microbial contamination to as low a practicable level as possible and prevent subsequent growth to levels that may constitute a hazard. The structure and equipment shall also protect meat from contamination from outside sources.

9.2 Some level of microbial contamination is inevitable in the abattoir environment and facilities shall be such that dressing and further processing can take place in an environment that minimizes contamination of the meat. The facilities need to be such that all services necessary to support hygienic operations (including meat inspection) are available and are laid out in a manner that enables personnel to operate effectively and safely. The standard of design and construction of both the building and equipment contained within it needs to be such that they do not themselves pose a risk of directly or indirectly contaminating meat and furthermore the rooms within the building and the equipment can be kept acceptably clean, while operations are taking place and be readily cleaned when operations have concluded. Support areas, such as areas set aside for inedible material; all contribute to the general environment and need to be of a standard appropriate to a food-producing establishment. The overall design and construction of the premises needs to be such that contamination from exogenous sources such as objectionable odours, dust and pests is prevented. A process control system that prevents hazards in fresh meat shall be in place and this shall be based on the HACCP approach.

10 Structures

10.1 Abattoirs and establishments shall:

- a). be located in areas that are not subject to regular or frequent flooding, and that are free from objectionable odours, smoke, dust or other contaminants;
- b). have adequate working space for the satisfactory performance of all operations;
- c). be soundly constructed and ensure adequate ventilation, good natural or artificial lighting and easy cleaning;
- d). with respect to both the building and the facilities it contains, be kept in good repair at all times;
- e). be laid out and equipped so as to facilitate proper supervision of meat hygiene, including the carrying out of meat inspection;
- f). be constructed so as to protect against the entrance and harbouring of insects, birds, rodents and other vermin;
- g). have a physical separation between departments in which edible material is handled and departments set aside for the handling of inedible material;
- h). have a physical separation between departments in which edible material is handled and places where animals are held;
- i) in all rooms, other than rooms provided for the accommodation of workers and inspectors, have:
 - a). floors that are of waterproof, non-toxic, non-absorbent materials and that are easy to clean and disinfect;
 - b). floors that are non-slip and without crevices and (except in the case of rooms where meat is frozen or stored frozen) that slope sufficiently for liquids to be drained off to trapped outlets that are protected by a grill;

- c). walls that are of waterproof, non-toxic, non-absorbent materials, light coloured, easy to clean and disinfect, smooth, and of a height appropriate to the operation conducted;
 - d). the angles between adjoining walls, and the angles at wall to floor junctions, coved; and
 - e). ceilings so designed and constructed as to prevent the accumulation of dirt and condensation and that are light coloured and easy to clean; and
- j). Have an efficient effluent and waste disposal system:**
- a). that is maintained at all times in good order and repair;
 - b). in which all lines, including sewer lines, are large enough to carry peak loads;
 - c). in which all lines are watertight and adequately trapped and vented;
 - d). with catch basins, traps, save-alls and sumps that are fully separate from any department in which meat is prepared, handled, packed or stored;
 - e). from which waste is disposed of in such a manner as to avoid contamination of potable water supplies;
 - f). with waste lines from toilets not joining the plant effluent system prior to the final save-all; and
 - g). that is approved by the controlling authority.

10.2 Abattoirs shall include:

10 1. Areas reserved for the use of the meat inspection service that comply with the requirements set out in Section 24 of this Code;

10.2. Suitable accommodation for animals that:

- a). is large enough to house all animals that are to be held;
- b). is covered, except where climate permits otherwise;
- c). is so arranged and fitted out as to permit the proper inspection of animals before slaughter,
- d). has a sufficient number of pens to facilitate ante-mortem inspection;
- e). is suitably constructed and maintained;
- f). is paved or slatted and is well drained;
- g). is provided with an adequate water supply;
- h). is so provided with hose connection points as to enable lairages, yards, races, unloading ramps and livestock transport vehicles to be cleaned; and
- i). has suitable restraining devices for the close examination of animals;

10.3. Separate facilities for the physical isolation of sick animals or animals suspected of being sick, and that:

- a). are covered if climatic conditions so require;
- b). are capable of being locked; and

c) have drainage that is separate and does not connect with any open drain that runs through other lairages and yards;

10.4. Slaughter and dressing areas that enable work to be performed in a satisfactory manner;

10.5. equipment in slaughter and dressing areas being constructed of impermeable, corrosion-resistant materials, capable of being easily cleaned, and designed, constructed and installed such that meat will not touch the floor;

10.6 a separate area reserved for the skin-on dressing of pigs or other animals where other classes of animals are dressed at the same time;

10.7. where animals are dressed, facilities for their scalding and dehairing or similar operation that are situated in an area adequately separated from other areas;

10.8. a separate room for emptying and cleansing alimentary tracts;

10.9 a separate room for the further preparation of emptied and rinsed alimentary tracts where these are to be prepared for human consumption:

10.10. if necessary, separate facilities for the preparation of edible fats and, if they are not removed daily from the premises, proper facilities for their storage;

10.11 separate rooms for the storing of hides, horns and hooves, and inedible animal fats unless these are removed daily from the abattoir;

10.12 refrigerated rooms suitable for the effective cooling and storage of meat;

10.13 . except where the national rules of the controlling authority either prohibit the killing of such animals in abattoirs or specify hygienically acceptable alternate arrangements, as specified in DES 5783:2003 section 5.17 separate facilities for the slaughter and dressing of animals and meat that:

a). are capable of being locked;

b). are solely for the slaughter and dressing of such animals and the holding of meat derived from them; and

c). are located within easy reach of the pens reserved for isolation of such animals;

10.14 separate facilities in the form of a separate room or portion of a room capable of being controlled and capable of being locked whenever required, for storing suspect meat, and designed so as to prevent the risk of contaminating other meat and the risk of substitution;

10.15 facilities in the form of a room or portion of a room capable of being locked and suitable for the secure holding of condemned meat, unless other adequate arrangements for disposal exist;

10.16 facilities for the control of the entrances and exits;

10.17 suitable facilities for the adequate cleaning and disinfecting of vehicles (except that the controlling authority may instead permit a satisfactory operational alternative to facilities located on the abattoir); and

10.18 suitable facilities for the hygienic collection and subsequent disposal of manure.

10.19 Abattoirs and establishments shall be designed, constructed and equipped such that:

a). those operations that carry a risk of contamination of meat are sufficiently separated from meat to avoid the risk of such contamination;

b). meat does not come into contact with floors, walls or fixed structures, other than those that are specifically designed for such contact;

c). there is an overhead rail, so installed as to avoid contamination of meat, for the moving of meat;

d). there is an ample supply of potable water under adequate pressure, together with facilities for its storage and distribution under conditions that guard against back siphonage and adequately protect against contamination;

e) there is equipment installed capable of providing an adequate supply of:

1. hot potable water at no less than 82°C; and
2. hot and cold running water or water premixed to a suitable temperature for hand washing; or
3. cold or warm sanitising solution of acceptable concentration;

10.20. where a supply of non-potable water exists under circumstances set out in

- a). that supply is completely separate from the supply of potable water; and
- b). all pipes and any vessels within which it is contained are distinctively identified by colour or by other shall mean approved by the controlling authority;

10.21 there is adequate natural or artificial lighting installed throughout the premises of a type that does not alter colours

10.22 where light bulbs or light fixtures are located over meat, they are of the safety type, or otherwise protected so as to prevent contamination of meat in case of breakage

10.23 there is adequate ventilation provided to prevent excessive heat, steam and condensation and to ensure that the air of premises is not contaminated with odours, dust, vapour or smoke;

10.24 any windows are fitted with whole panes and that those that open, and any other ventilation openings, are fitted with screens of a type that are easily removable for cleaning;

10.25. door ways are sufficiently wide to permit ready traffic;

10.26. doors that open from departments where edible material is handled, unless fitted with an effective air screen, are solid and:

- a) as far as practicable self-closing; or
- b). snug-fitting and of the double action type;

10.27 any stairs located in a room where edible material is handled are constructed so that they can be easily cleaned and no contamination can be caused by material falling from them;

10.28. any lift cage is so constructed as to afford adequate protection of meat against contamination and it and its shaft are capable of being effectively cleaned;

10.29. any platform, ladder, chute or similar equipment in a room used for the preparation of meat is constructed so as to be capable of being effectively cleaned and is of material that is:

- a). resistant to fracture, abrasion and corrosion; and
- b) capable of being effectively cleaned;

10.30. any chutes are fitted with inspection and cleaning hatches where these are necessary to ensure cleanliness;

10.31 . all rooms used for slaughtering, dressing, deboning, preparation, packaging or other handling of meat, are equipped with adequate facilities for washing hands, and these facilities:

- a) have waste water lines leading to drains;
- b) are conveniently located for the use of personnel who will work in the room;

- c) are connected to a warm water supply;
- e) have taps of a non-hand operable type; and
- f). are fitted with a dispenser (or dispensers, as appropriate) for liquid soap or other hand cleansing agent;

10.32 all rooms used for slaughtering, dressing, deboning, preparation, packaging or other handling of meat are equipped with adequate facilities for the cleaning and disinfecting of implements, and these:

- a). have waste water lines leading to drains;
- b). are conveniently located for the use of personnel who will use the implements;
- c). are set aside exclusively for the cleaning and disinfection of knives, steels, cleavers, saws and other implements; and
- d). are of such nature and size as to permit proper cleaning and disinfection of implements;

10.33 all rooms in which carcasses, parts of carcasses or edible offals are placed for chilling, freezing or refrigerated storage are fitted with temperature recorders; and

10.34. all rooms in which carcasses, parts of carcasses or edible offals are placed for chilling have proper insulation of walls and ceilings and:

- a) if overhead refrigerating coils are installed, have insulated drip pans fitted beneath them; and
- b) if floor type refrigerating units are installed, they are placed within curbed and separately drained areas unless located adjacent to floor drains.

10.35 Abattoirs and establishments in which meat is deboned and/or cut up shall have:

- a). a room or rooms, capable of being temperature controlled, for the holding of meat;
- b) a room or rooms, physically separated from other rooms and capable of being temperature controlled, for deboning and cutting up of meat; and
- c) separation of the area in which deboning, cutting and primary wrapping operations are to be undertaken from the place where packaging is to be undertaken, unless the controlling authority permits an operational approach to prevent the packaging causing contamination of meat.

11 Amenities

11.1 Each abattoir or establishment shall include amenities for employees that:

- a) are commensurate in size with the number of employees as per DES 5889 section 6.2.6
- b) include changing room, separate area for eating meals, toilets with flushing water closets, and showers;
- c) have hand washing facilities, in close association with toilets, that:
 - 1. are connected to a warm water supply; have taps of a non-hand operable type;
 - 2. are fitted with a dispenser (or dispensers, as appropriate) for liquid soap or other hand cleansing agent; and
 - 3. are associated with suitable hygienic shall mean of drying hands;

- d). are equipped to permit adequate lighting, ventilation and, where necessary, heating; and
- e). do not open directly to any work area.

11.2 Each abattoir or establishment shall have adequate and suitably equipped working areas and amenities for meat inspection personnel and office accommodation for the meat inspection service that complies with the requirements set out in Section 23 of this Code.

12. Equipment and related items

12.1 All equipment, implements and utensils used in abattoirs or establishments that come in contact with meat shall be of a design and construction that facilitates cleaning, and:

- a). have smooth impervious surfaces;
- b). be resistant to corrosion and made of a material that is non-toxic and does not transmit odour or taste;
- c). be smooth, free from pits and crevices; and
- d). be capable of withstanding repeated exposure to normal cleaning and disinfection;

and if fixed or stationary, be installed in such a manner as to permit easy access and thorough cleaning.

12.2 Equipment and utensils for use with inedible or condemned materials shall be distinctively identified.

13 Transport vehicles

13.1 Vehicles in which meat is transported need to be designed, constructed and equipped to prevent contamination of that meat, whether from external sources or from the vehicle itself, and to prevent or limit the growth of microbes

13.2 Vehicles or shipping containers in which meat is to be transported shall:

- a). have all internal finishes made of corrosion resistant material that is smooth, impervious and easy to clean and disinfect;
- b). have joints and doors sealed so as to prevent the entry of pests and other sources of contamination;
- c). be designed, constructed and equipped such that the required temperature can be maintained while meat is being carried; and
- d). be designed, constructed and equipped such that meat does not come into contact with the floor.

14 Hygienic operating requirements and practices

14.1 Operations and practices for holding, slaughter, dressing, further processing and distribution shall ensure the application of consistently applied minimum food safety standards. Hygienic operations and practices shall limit microbial contamination to as low a practicable level as possible and prevent subsequent growth to levels that may constitute a hazard. Operations and practices shall also protect meat from other sources of contamination. A process control system shall be in place to prevent hazards in fresh meat and shall be based on the HACCP approach.

14.2 Health of persons

14.2.1 Personnel who work in abattoirs and establishments shall have a health status consistent with the prevention of the contamination of meat.

Persons who come in contact with fresh meat in the course of their work shall have a medical examination prior to their employment if the controlling authority, acting on medical advice, considers that this is necessary. In such circumstances, the manager shall maintain the medical certificates of employees in a systematic manner and they shall be available for perusal by an inspector. Medical examination of a person who handles fresh

meat shall be carried out at other times when clinically or epidemiologically indicated or as prescribed by the controlling authority.

14.2.2 Care shall be taken 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 or be present in any meat handling area of an abattoir or establishment 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 shall immediately report illness to the manager.

15. Cleanliness of premises

15.1 Cleanliness of plant and equipment so that there is neither direct nor indirect contamination of meat is a fundamental principle of meat hygiene.

15.2 A cleaning and sanitation programme shall be established by the manager of an abattoir or establishment that ensures:

- a). the premises, including the amenities, are kept clean;
- b). equipment, implements and utensils (including knives, knife pouches, cleavers, saws and trays) are:
 - 1 cleaned at frequent intervals during and/or between periods of work;
 - 2. immediately and effectively cleaned and disinfected whenever they come into contact with pathological material, infective material or otherwise become contaminated; and
 - 3. in a clean and disinfected state at the beginning of each working day;
- c). washing down, cleaning and disaffection are carried out in compliance with this Code;
- d). carcasses or meat are not contaminated during cleaning or disaffection of rooms; equipment or i utensils;
- e). that no detergents, sanitizing agents or disinfectants are allowed to come into either direct or indirect contact with meat unless they conform to public health requirements for such contact;
- f) any residue of detergents, sanitizing agents or disinfectants used for the washing of floors, wall edible product equipment are removed by thorough rinsing with potable water before the area or equipment is again used for handling meat; and
- g). no cleaning preparation or material, or any paint or other surface treatment, likely to contaminat meat, is used in any part of an abattoir or establishment where animals are slaughtered or dresse meat is prepared, handled, packaged or stored.

16 Pest control

16.1. Pests always retain the potential to contaminate meat by direct or indirect contact. Pest control program are an integral part of meat hygiene, with caution being required that the shall mean of control does not in it become a source of contamination.

16.2 An effective and continuous program for the control of pests, including insects, birds, rodents and of vermin, shall be maintained in abattoirs and establishments, and shall include:

- a). detailed documentation of the program;
- b). the program being under the direct control of a representative of the manager who is suitably qualified for the task;
- c). the regular examination of the surroundings for evidence of infestation with pests;
- d). if pests are in evidence, eradication measures carried out under skilled supervision and with th knowledge of the inspector;

- e) only the use of pesticides approved for such use by the controlling authority;
- f). ensuring that chemicals used for pest control purposes do not contaminate meat;
- g). the use of pesticides only if other control methods cannot be used effectively;
- h). the removal of all meat from rooms to be treated before pesticides are used;
- i) the thorough washing of all equipment and utensils that are in a room that has been treated with pesticides before they are used again; and
- j). the storage of any pesticides or other toxic substances used for pest control in separate lock rooms or locked cabinets with access to them limited to authorized and properly trained personnel acting in accordance with the pest control programme.

17 General operational hygiene

17.1 All operations and practices shall be carried out in a manner that limits contamination to as low a level as possible. Good personal hygiene and adequate training programmes are important components, as is adequate supervision to ensure compliance with operational requirements.

17.2 Managers of abattoirs and establishments shall arrange for adequate and continuing training of all employees who work in the production of fresh meat in hygienic handling of meat and in personal hygiene.

17.3 Every person, including a visitor, in an area of an abattoir or establishment where meat is prepared or handled, shall maintain a high degree of personal cleanliness, and at all times while in the area wear suitable light coloured protective clothing including:

- a). head covering; and
- b) footwear;

that is washable (unless disposable) and that is maintained in a clean condition consistent with the nature of the work in which the person is engaged.

17.4 Personal effects and clothing shall not be deposited or stored in an area of an abattoir or establishment used for slaughter of animals, dressing of carcasses, or the preparation, handling, packaging or storing of meat. Protective clothing, knife pouches, belts and working implements not being used shall be kept in a place provided for the purpose where they will not contaminate meat or become contaminated themselves.

17.5 All persons, while engaged in the preparation, handling, packaging or transport of meat, shall wash their hands frequently and thoroughly with liquid soap under running warm potable water. Hands shall always be washed before commencing work, immediately after using the toilet, after handling contaminated material and whenever else necessary. After handling any material that might be capable of transmitting disease, hands shall immediately be washed and disinfected. Notices requiring hand washing shall be prominently displayed.

17.6 Gloves, if used in the handling of meat, shall be maintained in a sound, clean and sanitary condition. The wearing of gloves does not exempt any person from having thoroughly washed hands. Gloves shall be made of an impermeable material except where their usage would be inappropriate or incompatible with the work involved and where the use of gloves of permeable material does not adversely affect hygiene.

17.7 Any behaviour or unhygienic practices that could potentially result in contamination of meat shall be prohibited in any part of an abattoir or establishment.

17.8 Any person in an abattoir or establishment who has a cut or wound shall discontinue handling meat or meat contact surfaces until the injury is completely protected by a water proof covering that is firmly secured, and that is conspicuous in colour. Adequate first aid facilities shall be provided for this purpose.

17.9 Doors opening to the outside from departments where edible material is handled, unless protected by an effective air screen, shall be kept closed as far as practicable.

17.10 Where a skip or trolley, or any container used in a department where edible material is handled, enters an area set aside for the handling or storage of inedible material, it shall not re-enter any edible department until it has been cleaned and disinfected.

17.11 Where containers or cartons are assembled in parts of an abattoir or establishment where animals are slaughtered or dressed, or where meat is cut up or deboned, prepared, handled, packaged or stored, they shall be assembled in such a manner that there is minimal risk of contaminating meat.

17.12 Where containers, equipment and utensils are held in any area of an abattoir or establishment where animals are slaughtered or dressed, or where meat is cut up or deboned, prepared, handled, packaged or stored, they shall be held in such a manner that there is minimal risk of contaminating meat.

17.13 Aprons and other items of protective clothing, other than footwear, shall not be washed on the floor.

17.14 Effective ventilation shall be provided in work areas of an abattoir or establishment to prevent excessive heat, steam and condensation and to ensure that the air is not contaminated with odours.

17.15 Lighting intensity throughout an abattoir or establishment shall be sufficient while dressing of animals is being undertaken, and when meat is being deboned or prepared.

17.16 No animal other than an animal for slaughter, or an animal used for transport or for stock handling, shall enter any part of an abattoir. Animals present in an abattoir for purposes of transport or stock control shall be kept outside or have entry restricted to lairages, and shall be kept under control.

17.17 No animal shall enter any part of an establishment.

Notwithstanding anything elsewhere in this Code, materials employed in the construction or maintenance of an abattoir or establishment may be used at any time that such use is necessary, provided an inspector is satisfied that there would be no danger of contamination of meat.

18 Water and operational hygiene

18.1 Water is used extensively in abattoirs and establishments both for cleaning and disinfecting. Water itself can carry contaminants and it is therefore important that its quality is appropriate to the operation and that it is used carefully to prevent inadvertent direct or indirect cross contamination.

18.2 All water used in abattoirs and establishments shall be potable, complying with ES261: 2001, drinking water specification except that water that falls outside of the standard for potable water because of physical and/or chemical characteristics may be used in situations where there is no risk of contamination of meat.

18.3 There shall be an adequate supply of hot potable water at not less than 82°C, and of warm potable water for hand washing, at all times while slaughtering and dressing of animals is being undertaken, and when meat is being deboned or prepared.

18.4 Sterilizers shall be reserved exclusively for cleaning and disinfection of knives, steels, cleavers, saws and other such implements.

18.5 Soap and detergent dispensers located in areas that are in use shall be adequately filled.

18.6 Hand drying facilities that have been provided shall be useable in any area where persons are working with meat. When this entails the provision of disposable towels, suitable receptacles for used towels shall be available and be used.

19 Process control programmes

19.1 The process of converting slaughter animals to edible meat and then transporting that meat involves many steps; at each of these steps there can be risk to safety and wholesomeness. To adequately control those risks and protect the consumer requires a systematic approach to the process. A process control programme includes systematic identification of hazards (raw materials, processes, procedures), establishment of target levels and tolerances, monitoring, corrective actions, verification procedures and documentation. The HACCP

approach is a valuable tool to this end and efficient process control programmes require a joint approach by industry and the controlling authority.

19.2 Both the meat industry and the controlling authority have important roles in process control. This necessitates a joint approach.

19.3 There are advantages in standardisation of process control systems in abattoirs and establishments (such as the facilitating of training, the assessment of compliance and the certification of fresh meat) but each programme shall be individually designed on a premises-by-premises basis for the particular circumstances in which it is to operate.

19.4 Each step in the process of producing fresh meat shall be the subject of an effective process control programme. The process control programme shall be designed specifically for the operation concerned and have as its objective the production of safe and wholesome meat that complies with all the provisions of this Code and ES 1116:2005 Code for Ante-mortem and Post-mortem Inspection of Slaughter Animals and for Ante-mortem and Post-mortem Judgement of Slaughter Animals and Meat.

19.5 The manager of an abattoir or establishment shall be responsible for the development and continuance of the process control program. While the manager may delegate supervision of the process control programme to a properly trained subordinate, overall responsibility shall never be delegated. The successful application of a process control programme requires a team approach, and the full commitment and involvement of management and employees.

19.6 An inspector shall monitor the application and results of the process control programme with respect to all matters touching on the safety and hygiene of fresh meat as well as all matters relating to additional requirements imposed by the controlling authority.

19.7 The details of measures that comprise the process control programme shall be fully documented and reviewed as frequently as necessary to ensure their continued relevance; the inspector with responsibility for monitoring the programme shall have unrestricted access to details of the programme, as well as to records of the results of monitoring the process.

20 Operational hygiene of slaughtering and dressing

20.1 There is a substantial risk of seen and unseen contamination of meat during slaughtering and dressing. Good hygienic practice and good manufacturing practice will minimize this risk. Training programmes also are an important component in achieving hygienic slaughtering and dressing as is adequate supervision to ensure compliance with operational requirements.

20.2 Rooms, equipment and utensils for slaughtering and dressing shall be used for that purpose only and not for cutting-up or deboning. However, in some situations, preparatory operations such as partial deboning of the neck, or removal of head meat, may be acceptable to the controlling authority once the carcass has passed inspection.

20.3 Except under emergency slaughter provisions described in FDES 5783: 2004 Code for Ante-mortem and Post-mortem Inspection of Slaughter Animals and for Ante-mortem and Post-mortem Judgement of Slaughter Animals and Meat, an animal shall not be slaughtered or dressed in any abattoir except when an inspector is present.

20.4 All animals brought to the killing floor shall be slaughtered without delay.

20.5 Stunning, sticking and bleeding of animals shall not proceed at a rate faster than that at which carcasses can be promptly accepted for dressing.

20.6 Sticking, bleeding and dressing shall be carried out so as to ensure the production of clean meat.

20.7 Bleeding shall be as complete as possible. If blood is intended to be used in food preparation, it shall be collected and handled hygienically and, if stirred, shall only be stirred with hygienically acceptable implements and never with the hand.

20.8 Once the removal of the hide, skin or pelt has commenced, carcasses shall be separated from each other to avoid contact between them and the risk of cross contamination. Separation of carcasses shall be maintained until they have been examined and passed by an inspector. Carcasses shall only come into contact with surfaces or equipment essential to handling, dressing and inspection.

20.9 Before the removal from any meat from head or brain intended for human consumption, the head shall be clean and, except in the case of scalded and dehaired carcasses, be skinned to a sufficient extent to facilitate inspection and the hygienic removal of head meat and/or the brain.

20.10 Where the tongue is dropped this shall be done in such a way that the tonsils are not cut.

20.11. The following shall apply in skinning and associated dressing operations:

- a). where carcasses are skinned, skinning shall be done before evisceration, in a manner that avoids contamination of meat;
- b). pumping of air or gas between the skin and the carcase to facilitate skinning shall only be permitted if it is of such nature and quality that it does not contaminate the meat;
- c). skinned carcasses that are uneviscerated, if washed, shall only be washed in a manner that does not allow water to enter either the abdominal or thoracic cavities;
- d) slaughtered animals that are scalded, flamed or similarly treated shall be scoured of all bristles, hair, scurf and dirt;
- e). the water in scalding tanks shall be changed as frequently as practicable; and
- f). with respect to udders:
 - 1. lactating or obviously diseased udders shall be removed at the earliest appropriate time during dressing; and
 - 2. no secretion from, or contents of, udders shall be allowed to contaminate the carcase and therefore udders shall be removed in such a manner that teat and udder substance remains intact and milk ducts or sinuses are not opened.

20.12 With respect to further dressing:

- a). evisceration shall be undertaken without delay and in a hygienic manner;
- b). discharge of any material from the oesophagus, stomach or stomachs, intestines or rectum, or from the gall bladder, urinary bladder, uterus or udder shall be effectively prevented;
- c). intestines shall not be severed from the stomach during evisceration and no other opening shall be made during evisceration into any intestine, unless the intestines are first effectively tied to prevent spillage;
- d) no paper, cloth, wad, sponge or brush shall be used in the washing of any carcase, except that brushes may be used in the dressing of singed pig carcasses provided this is done as the next operation after singeing;
- e). no carcase, meat or edible offal shall be inflated with air or gas in a way that alters its appearance prior to post-mortem inspection or causes contamination;
- f) no hide, skin or pelt shall be washed, defleshed or left in any part of an abattoir or establishment used for the slaughtering or dressing of animals or for the preparation or holding of meat intended for human consumption;
- g). stomachs and intestines and all inedible material derived from the slaughtering or dressing of animals shall:
 - 1. be removed, as soon as the inspection procedure permits, from the dressing area in a manner that avoids contaminating the area or meat; and
 - 2. after removal from the dressing area, be subsequently treated in parts of the abattoir intended for this purpose in a way that does not risk contamination of meat;

3. faecal and other objectionable matter that contaminates carcasses during dressing shall be carefully trimmed off; and

19.12 .9. where an inspector considers that the manner in which animals are being slaughtered or dressed or under which the carcasses or meat are being handled, prepared or packaged, will adversely affect:

19.12 .9.1. the safety and wholesomeness of the carcass or meat;

19.12 .9.2. the hygiene of production; or

19.12 .9.3. the efficiency of meat inspection;

and the manager has not taken effective action to correct the problem, the inspector shall have the power to require a reduction in the rate of production or the suspension of operations for the time being in any specified area of the abattoir.

20 Operational hygiene after slaughtering and dressing

20.1 The operations following slaughter, dressing and inspection, including deboning and cutting, freezing and storing, also entail a risk of contamination, and a risk of growth of microbial contaminants. Good hygienic practice and good manufacturing practice will minimize this risk. Time, temperature and water activity are all important interacting factors in controlling microbial growth and they need to be controlled in such a way that the growth of microbiological contaminants is limited to non-hazardous levels.

20.2 Packaging and wrapping is used to protect meat from external contamination during handling, storage and transport. It is important that neither the packaging or wrapping itself, nor the packaging or wrapping procedure, causes contamination of meat.

20.3 Meat passed as fit for human consumption shall:

20.3 .1. be handled, stored or transported in a manner that will protect it from contamination and deterioration;

20.3 .2. be removed without delay from the dressing area; and

20.3 .3. unless cut up or deboned pre-rigor, be held under conditions that reduce its temperature and/or water activity.

20.4 Where carcasses, parts of carcasses or edible offals are placed in a holding room:

20.4 .1. there shall be a reliable method of monitoring the process control programme;

20.4.2. carcasses shall be hung in a manner permitting adequate circulation of air around them;

20.4 .3. parts of carcasses shall be hung, or placed in suitable corrosion resistant trays, in a manner permitting adequate circulation of air around the meat;

20.4 .4. they shall be held in a manner that precludes drip from one piece falling on to any other piece;

20.4 .5. temperature, relative humidity and air flow shall be maintained in accordance with the process control programme; and

20.4 .6. dripping water, including dripping condensation, shall be prevented.

20.5 Rooms, equipment and utensils for cutting-up, deboning or further preparing meat shall be reserved for those purposes and not used for any other purpose.

20.6 Rooms in which deboning or cutting is in progress shall be maintained at a temperature and humidity appropriate to the operation.

20.7 If meat is cut up or deboned pre-rigor:

20.7.1. it shall be transported directly from the dressing area to the cutting up or deboning room;

20.7 .2. the cutting up or deboning room shall be temperature controlled and directly linked to the dressing areas, except that the controlling authority may approve alternative procedures that provide the same degree of hygienic protection; and

20.7.3. cutting up, deboning and packing shall be done without delay and it shall be handled or held in accordance with a suitable process control programme, that programme to include the rapid reduction of temperature where appropriate.

20.8 If meat is packaged or wrapped:

20.8.1. packaging material shall be stored and used in a clean and sanitary manner;

20.8.2. wrapping and packaging shall be sufficient for the purpose of protecting the meat from contamination in the conditions under which it is to be handled, transported and/or stored;

20.8.3. wrapping shall be non-toxic and shall not leave harmful deposits of any kind on the meat, or otherwise contaminate it; and

cases or cartons used shall be provided with a suitable inner liner or other satisfactory shall mean of protecting meat, except that the liner or other protection may not be required if individual pieces of meat, such as cuts, are individually wrapped before packing.

20.9 Inventory control shall be maintained over all frozen meat and there shall be effective monitoring of the freezing and storage process to ensure that time and temperature parameters are met.

20.10 Where carcasses, parts of carcasses or edible offals are placed in a freezing room for freezing, the following provisions shall be observed:

20.10.1. meat that is not in cartons shall be hung or placed on suitable corrosion resistant trays in a manner permitting adequate circulation of air around the meat;

20.10.2. cartons that contain meat shall be stacked so as to permit adequate circulation of air around each carton;

20.10 .3. meat that is not in cartons shall be held in a manner that precludes drip from one piece of meat falling on to any other piece; and

20.10 .4. care shall be taken where meat is held on trays to avoid contact between the base of any tray and any meat stored beneath that tray.

20.11 Where carcasses, parts of carcasses or edible offals are placed in any freezer store, the following provisions shall be observed:

20.11.1. they shall not be placed in that freezer store until the temperature of the meat has been reduced to an acceptable level;

20.11.2. meat, whether in carcase form or in cartons, shall not be stacked directly on the floor and shall be positioned so that there is adequate air circulation; and

20.11.3. the freezer store shall be operated and maintained at a temperature that will give adequate protection to the meat.

20.12 Where carcasses, parts of carcasses or edible offals are placed in freezing rooms or frozen storage rooms:

20.12.1. entry to those rooms shall be restricted to personnel necessary to carry out operations;

20.12.2. doors of those rooms shall not be left open for extended periods and shall when possible be closed immediately after use; and

20.12 .3. temperatures shall be recorded.

2 21 Operational hygiene of transportation

21.1 Transportation is an area of particular risk for contamination of meat from a variety of sources and of increased difficulty in maintaining water activity and temperature parameters that assure safety and wholesomeness. Particular care shall be taken during transportation to prevent the growth of microorganisms that might be present.

21.2 Meat shall only be transported:

21.2.1. in a shall mean of transport that was clean and in good repair before loading and, if necessary, that was disinfected;

21.2 .2. if with other goods, in a way that does not adversely affect the meat;

21.2 .3. in the case of stomachs, if they have been cleaned or scalded;

21.2 .4. in the case of heads and trotters, if they have been skinned, or scalded and dehaired;

21.2 .5. if carcasses, sides or quarters, as a hanging load or in a suitable manner on racks or similar equipment, except that if they are adequately wrapped and frozen, they may be carried under other hygienic arrangements;

21.2 .6. if unwrapped and unfrozen edible offal, in suitable closed containers;

21.2 .7. so that it does not contact the floor;

21.2 .8. in a vehicle or container that prevents the entry of pests and other sources of contamination; and

21.2 .9. in a way that prevents unacceptable rises in temperature.

21.3 Where meat is accidentally exposed to adverse conditions during transport and the wholesomeness of the meat is in doubt it shall be examined and evaluated by a veterinary inspector, or by another suitably qualified person who is accountable to a veterinary inspector, before any further step is taken.

22 Operational hygiene for separate slaughter

22.1 Particular care shall be exercised over the operational hygiene of the slaughter and dressing of animals of a category that a veterinary inspector has decided shall be slaughtered and dressed in the separate facility.

22.2 Meat from animals slaughtered and dressed in the separate facility ode that is being held pending a decision on its fitness for human consumption, and any suspect meat, shall be held under conditions that prevent it contaminating other meat and preclude it being substituted.

23 Operational hygiene for meat condemned or otherwise unfit for human consumption

23.1 Particular care and attention needs to be paid to handling practices for meat that has not been passed for human consumption and is either designated condemned or inedible, or is being held pending further investigatory testing. This meat must be prevented from being mixed with, substituted for, or in any way contaminating meat for human consumption.

23.2 Rooms, equipment and utensils for use with inedible or condemned materials shall be reserved for that purpose and not used for edible product.

23.3 Meat that has been condemned or is otherwise unfit for human consumption, under supervision by a veterinary inspector:

23.3.1. shall be placed without delay into clearly identified chutes, containers, trucks, trolleys, skips, or rooms, or handled in accordance with other adequate arrangements provided for these purposes;

23.3.2. may be identified by shall mean of cuts or brands provided these clearly identify the meat as condemned or unfit for human consumption; and

23.3.3. shall be conveyed to the rendering station or other place of destruction in a manner that ensures that no removal of such meat is possible and no contamination can be caused.

24 Special requirements for inspection

24.1 Facilities and equipment shall be provided that allow adequate monitoring and control of meat hygiene by industry personnel and the controlling authority. All aspects of meat hygiene shall be supervised by an official veterinarian. Each abattoir or establishment and its supervising veterinarian shall have access to laboratory facilities and analytical procedures to support hygienic practices and process control programmes.

24.2 Facilities and equipment

24.2.1 Abattoirs and establishments shall be laid out and equipped so as to facilitate proper supervision of meat hygiene including the performance of meat inspection.

24.2.2 Lighting intensity at all inspection points shall not be sufficient

24.3 Each abattoir or establishment shall include amenities for meat inspection personnel that are commensurate in size with the number of inspectors.. However, in the case of establishments, the controlling authority may waive this requirement where satisfactory arrangements are made for access to amenities elsewhere so long as they are conveniently located and meet the above requirements.

24.4 Suitably equipped office accommodation shall be provided for the exclusive use of the meat inspection service.

24.5 Laboratory facilities shall be readily available for the purpose of meat inspection and meat hygiene.

24.6 Veterinary supervision of meat hygiene

24.6.1 All meat hygiene requirements in this Code shall be supervised by an official veterinarian and may be supervised by a separate authority in strict collaboration with the official veterinarian. For every abattoir or establishment there shall be at least one official veterinarian appointed to supervise hygiene, including meat inspection.

24.7 Laboratory control procedures

24.7.1 It is desirable that the management of each abattoir or establishment, in its own interest, have access to laboratory services. Analytical procedures used shall follow recognized or standard methods in order that the results may be readily interpreted.