



## **DRAFT TANZANIA STANDARD**

---

**Ante mortem and post mortem inspection of slaughter animals —  
Code of Practice**

**DRAFT STANDARD FOR PUBLIC COMMENTS ONLY**

## **0 Foreword**

This Code of practice has been prepared keeping in mind that unless slaughter animals pass ante mortem and post mortem inspection, there is a chance for the public to consume unfit meat. This code has been prepared to safeguard the consumer who could not be having the capacity to determine the suitability of meat purchased

This code covers the recommended ante-mortem and post-mortem inspection of slaughtered animals.

In the preparation of this code assistance was derived from: CAC / RCP 11/13: 1976 *Code of hygiene for fresh meat, for ante-mortem and post-mortem inspection of slaughter animals and for processed meat products*, published by the Codex Alimentarius Commission.

This third edition cancels and replaces the second edition (TZS 110: 2016) which has been technically revised.

## **1 Scope**

This Code of practice applies to ante-mortem and post-mortem inspection of slaughter animals intended for human consumption.

## **2. Normative references**

AFDC 22 (749) DTZS Meat and meat products – vocabulary

## **3 Terms and definitions**

For the purpose of this code, terms and definition in AFDC 22 (749) DTZS and the the following shall apply:

### **3.1 brand**

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

### **3.2 caprine**

belonging or relating to or characteristic of a goat

### **3.3 cleaning**

the removal of objectionable matter

### **3.4 contamination**

the direct or indirect transmission of objectionable matters (physical, chemical and microbial)

### **3.5 Competent authority**

official authority charged by the government for implementation of animal health, animal movement and animal welfare measures to ensure meat hygiene and quality.

### **3.6 Disinfection**

the application of food grade chemical and/or physical agents and processes to cleaned surfaces with the intention of eliminating micro-organisms

### **3.7 dressed or dressing**

3.7.1 in relation to slaughtered animals except for pigs, sheep, lambs, goats and kids, means 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 udders of lactating animals and animals that have given birth.

3.7.2 in relation to slaughtered pigs, means the removal of hair and bristles or skin, claws, eyelids, viscera (including or not including kidneys), genital organs, urinary bladder, udders in the case of lactating animals or of 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.

3.7.3 in relation to sheep and lambs, goats and kids means 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, feet up to the carpal and tarsal joints, udder of lactating animals or of animals that have given birth.

3.7.4 in relation to cattle, pigs and solipeds includes where necessary splitting of the carcass. To split means dividing the carcass lengthwise on the medial line.

### **3.8 establishment**

any premises approved and registered by the competent authority in which fresh meat is prepared, handled, packed or stored

### **3.9 fresh meat**

meat which has not yet been treated in any way to ensure its preservation except that it has been subjected to refrigeration, it should continue to be considered as fresh for the purpose of this code

### **3.10 meat inspector**

a properly trained officer appointed by the Competent authority for the purpose of meat inspection

### **3.11 ingredients**

any substance including food, additives used in the manufacture or preparation of a meat product.

### **3.12 manager**

in relation to an abattoir or an establishment includes any person vested with the responsibility for the management of the abattoir or establishment

### **3.13 offals**

any part of the dead animal removed from the carcass in the process of dressing it but does not include hide, skin, horn or hoof

### **3.14 ovine**

relating to or characteristic of a sheep or sheep (sheeplike)

### **3.15 potable water**

water that is clean and wholesome at the point of usage

### **3.16 porcine**

relating to or resembling a pig

### **3.17 protective gears**

special garments intended to prevent the contamination of meat and used as outer wear by persons in an abattoir or establishment and includes white head covering, boots and aprons

### **3.18 slaughter animal**

any food animal brought into an abattoir for slaughter

### **3.19 residues**

any foreign substance, including metabolites, therapeutics or prophylactic agents, which are objectionable or are a hazard to human health, remaining in slaughtered animals prior to slaughter or in any of the tissues after slaughter, either as a result of treatment or accidental exposure. Examples of such substances are antibiotics, anthelmintics, growth promoters, and hormones, hormone like substances, pesticides, tranquilizers and radioactive residues.

### **3.20 Emergency slaughter**

If at the moment of the inspection an animal is hurt or suffering from trauma that endangers its life, the animal may be sent to the slaughter and dressing room without the presence of the inspector on the condition that the carcass, red entrails, head, rumen, and reticulum MUST be retained until the Official inspector in Charge determines if the carcass and its parts are approved for human consumption or condemned.

### **3.21 Ante-mortem inspection**

Every procedure or test done by a certified and competent person in live animals in order to issue an opinion on their safety, health and intended use

### **3.22 Post-mortem inspection**

Every procedure or analysis conducted by a certified and competent person on all the relevant parts of slaughtered cattle with the purpose of issuing an opinion on its safety and hygiene and intended use.

## **4.0 Hygiene and health of personnel**

4.1 Every person employed in an abattoir and establishment should be examined by an authorized medical practitioner. The examination should include examination of stool for protozoal and helminthic infestation for those parasites transmitted by ingestion and the presence of *Salmonella*, *Shigella* and *Vibrio* species. Chest X-ray examination during the first appointment medical examination is recommended for the examination of tuberculosis, but this will be to the discretion of the medical practitioner who will use any tuberculosis diagnosing means available and appropriate. Examination should be done at least every six months to ensure that every employee is physically fit and free from any communicable diseases. A record of such examination should be maintained.

4.2 Managers of abattoirs and establishments should arrange for adequate and continuing training of every employee in hygienic handling of meat and clean habits so that the employees are able to take the necessary precautions to prevent contamination of meat. Instruction should include relevant parts of this code.

4.3 The management should take care to ensure that no employee, while known or suspected to be suffering from or to be a carrier of disease capable of being transmitted through meat, or while afflicted with infected wounds or sores or diarrhoea, is permitted to work in any area of an abattoir or establishment in a capacity in which there is a possibility of such a person directly or indirectly contaminating meat with pathogenic microorganisms. Any ill person should immediately report to management that he is ill.

4.4 Any person who is cut or injured should discontinue working with meat until he/she is suitably bandaged and should not engage in any abattoir or establishment in the preparation, handling, packaging or transportation of meat. No person working in an abattoir or establishment should wear any 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.

4.5 The manager of any abattoir or establishment should, if required to do so by an inspector, produce for perusal by the inspector, any medical certificate produced to the manager by an employee of the abattoir or establishment.

4.6 Every person engaged in an abattoir or establishment should wash his/her hands frequently and thoroughly with soap or detergent under running warm potable water while on duty. Hands should be washed before commencing work, immediately after using lavatory, after handling contaminated

material, and whenever else necessary. After handling diseased or suspect material, hands must be washed and disinfected immediately. Notices requiring hand-washing should be displayed.

4.7 Every person engaged in an area in an abattoir or establishment where meat is handled should maintain a high degree of personal cleanliness while on duty, and should at all times while so engaged wear suitable protective gears; all of which articles should be washable unless designed to be disposed of and which should be maintained in a clean condition consistent with the nature of the work in which the person is engaged. Aprons and similar items should not be washed on the floor.

4.8 Every person who visits an area in an abattoir or establishment where carcasses or meat are handled should wear clean protective gears.

4.9 No part of an abattoir or establishment used for slaughter of animals, dressing of carcasses, preparation, handling, packaging or storing of meat should be used for deposit of personal effects or clothings.

4.10 Protective gears, knife pouches, belts and working implements should be deposited in a place provided for the purpose, where they will not contaminate any carcass or meat.

4.11 Any behaviour which can potentially contaminate the meat and meat products, such as eating, use of tobacco, or any form of chewing, should be prohibited in any part of an abattoir or establishment used for slaughtering or dressing of carcasses or for the preparation, handling, packaging or transportation of meat.

4.12 Gloves, if used in the handling of meat, should be maintained in a sound, clean and sanitary condition. The wearing of gloves does not exempt the operator from having thoroughly washed hands. Gloves should be made of an impermeable material except where their usage would be inappropriate or incompatible with the work involved.

## **5.0 Ante-mortem and post-mortem inspection of slaughter animal**

### **5.1 General requirements**

Every slaughter animal should be appropriately identified or accompanied by an appropriate document which would ensure that the place of origin from which the animal has come can be traced and should be adequately rested prior to slaughter in clean, well ventilated lairages and yards having drinking troughs supplied with potable water. The animal shall undergo an ante- and post-mortem inspection unless delay in carrying out ante-mortem inspection would cause undue suffering to animals requiring emergency slaughter.

### **5.2 Facilities for employees and meat inspection personnel**

5.2.1 Every abattoir and establishment should include the following amenities: adequate changing room accommodation, drying room, lunch room, toilets with flushing water closets, showers and hand washing facilities which should have adequate lighting and ventilation, and should not open directly to any work areas. Hand-washing facilities with hot and cold water and suitable hygienic means of drying the hands should be provided adjacent to every toilet.

Where paper towels are used, a sufficient number of dispensers with paper towels and receptacles for used towels should be provided to each washing facility. Waste from these facilities should not join the plant effluent system prior to the final save-all.

5.2.2 The amenities reserved for the meat inspection service should have adequate lighting system.

5.2.3 Office accommodation should be provided for the exclusive use of the meat inspection service. Laboratory facilities should be readily available for the purpose of meat inspection and meat hygiene.

5.2.4 Every slaughter animal must undergo ante- and post-mortem inspection.

5.2.5 No animal should be slaughtered or dressed in any abattoir or establishment except when an inspector is present.

5.2.6 Any animal in an unreasonably dirty condition should be cleaned to the satisfaction of the inspector before it is allowed to enter the slaughtering floor, so as to lessen the risk of contamination

## **6.0 Ante-mortem and post-mortem inspection**

### **6.1 Ante-mortem inspection**

No animal should proceed for slaughter until the inspector has carried out an ante-mortem inspection and has passed the animal for slaughter. Exceptions may be made in case of emergency slaughter. All animals should be inspected within 24 h of delivery to the abattoir. If the animal is kept for more than 24 h after the initial ante-mortem inspection at the abattoir the ante-mortem examination should be repeated on the day of slaughter and the method of identification of inspected animals should be approved by the controlling authority. It is the duty of the management of the abattoir to present the animals in such a way that an adequate ante-mortem inspection can be carried out.

#### **6.1.1 The purpose of ante-mortem inspection is:**

- a) to select animals which are adequately rested and which will provide meat which is fit for human consumption;
- b) to isolate for detailed clinical examination, diseased, suspected diseased or suspected abnormal animals;
- c) to prevent contamination of the dressing areas by animals in an excessively dirty condition;
- d) to prevent contamination of premises, equipment and personnel by animals suffering from a disease which is communicable;
- e) to obtain information which may be necessary for the post-mortem inspection, diagnosis, and judgement of carcass and offals.

#### **6.1.2 Ante – mortem inspection procedure**

**6.1.2.1** Animals should be inspected in a standing position and in motion, and while they are not excited. The following should be observed:

- a) abnormalities and signs of diseases;
- b) species and behaviour of animals; in sick or suspected diseased animals, notice should be taken of age, sex, colour and specific markings;
- c) cleanliness of slaughter animals;
- d) manner of standing and movement;
- e) state of nutrition (body condition scores);
- f) reaction to environment;
- g) condition of hide, skin, hair and wool;
- h) digestive system (salivation, rumination, consistency and colour of faeces);
- i) appearance of the urinogenital system, including vulva, mammary glands, prepuce and scrotum;
- j) respiratory system (nostrils, including mucous membranes, nasal discharge, blood-tinged froth, quality of respiration);
- k) injuries, swelling or oedema;

- l) body temperature (in suspected or obviously diseased animals);
- m) blood smear (in cases in which disease is suspected which could be diagnosed by examining the blood);
- n) as certain diseases or disease symptoms have sites of predilection in different species, it's essential that attention should be paid to these sites.

### **6.1.3 Disposition of animal after ante-mortem inspection**

6.1.3.1 The post-mortem inspector should be notified of the result of the ante-mortem inspection. The method of carrying out this notification is left to the controlling authority.

6.1.3.2 An animal is released for slaughter without any restriction when the ante-mortem inspection has revealed no evidence of any abnormal condition or disease.

6.1.3.3 If during the ante-mortem inspection any disease or condition has been noted which does not prevent the animal from being slaughtered for human consumption, the animal should be identified, released for slaughter and post-mortem veterinary inspection should be conducted by veterinary inspector.

6.1.3.4 Where disease signs are doubtful, the animal should be withdrawn from slaughter and placed in isolation, set aside for this purpose for detailed examination, observation or treatment or slaughtered under special condition to preclude contamination of the premises, equipment and personnel.

6.1.3.5 Where signs indicate a systemic involvement, a communicable disease; or toxicity from chemical or biological agents which do or may render the meat unsound, the animal so affected should be withheld from slaughter and condemned forth as unfit for human consumption or, where appropriate, set aside and remain under veterinary control until a further decision regarding disposition is taken.

6.1.3.6 Animals exhibiting normal behaviour but known to have been treated or given drugs and to be carrying consequent residues or which are carrying residues from other sources, should be either condemned or withheld from slaughter until the residues are extracted or metabolized by the body to harmless end products. In case of doubt the animal should be identified and slaughtered and the carcass and viscera should be subjected to all necessary laboratory examinations.

6.1.3.7 Any animal which as a result of ante-mortem inspection is not passed for slaughter should be examined for a final decision on its disposition by the veterinary inspector.

6.1.3.8 Animals which have died, and those which have been rejected at ante-mortem inspection and slaughtered, should be removed immediately and rendered into inedible products.

## **6.2 Post-mortem inspection**

### **6.2.1 General**

The purpose of post-mortem inspection is to ensure the detection of abnormalities and pass meat as fit for human consumption. The inspector should carry out routine checks on the manner and method of handling animals, stunning, shackling and bleeding.

### **6.2.2 Prerequisites for post-mortem inspection**

Before the post-mortem inspection of slaughter animals is commenced, it is the duty of the inspector to satisfy him/her self that the condition of the premises, equipment and facilities are conducive to the efficient and hygienic performance of this examination. It is the duty of the management of the abattoir to present the carcasses and viscera in a hygienic manner and in such a way that an adequate inspection can be carried out. To prevent contamination of carcasses, heads and viscera it is essential that the basic requirements of hygiene, such as laid down in this code, are strictly enforced

and that the labour force slaughtering and dressing carcasses is fully aware of its important role in maintaining a satisfactory level of meat hygiene.

6.2.2.1 In operating an abattoir the carcasses should be separated from each other to avoid contact and contamination once the removal of the hide, skin or pelt has commenced. Separation of carcasses, heads and viscera should be maintained until they have been examined and passed by the inspector.

6.2.2.2 Meat should come in contact only with surface or equipment essential to handling, dressing and inspection. Evisceration should be effected without delay. Prior to the final examination, all parts required for inspection of the slaughtered animal should remain identifiable with the carcass.

6.2.2.3 Every person engaged in an abattoir should wash his hands frequently and thoroughly with soap or detergents under running warm potable water while on duty. Hands should be washed before commencing work, immediately after using the lavatory, after handling contaminated material, and whenever else necessary. After handling diseased or suspected material hands must be washed and disinfected immediately. Notices requiring hand-washing should be displayed.

6.2.2.4 All equipment, implements, tables, utensils including knives, cleavers, knife pouches, saws and containers should be cleaned at frequent intervals during the operation, and immediately and thoroughly cleaned and disinfected whenever they come in contact with diseased material, infective material or become contaminated. They should also be cleaned and disinfected at the conclusion of each working day. Skinned carcasses should not be washed in a manner which will allow water to enter either the abdominal or thoracic cavities prior to evisceration.

### **6.2.3 Post-mortem inspection procedure**

6.2.3.1 Routine post-mortem inspection should include observing, palpation and, where necessary, incision. This inspection should be carried out in a hygienic and systematic manner. Where a lymph node, organ or any carcass tissue is being incised by the inspector, the cut surface should be clearly sliced in order to present a picture which is not distorted. Where an incision is required to be made, the inspector should as far as possible, prevent any risk of contamination.

6.2.3.2 The head, organs, viscera and any other part of a carcass required for post-mortem inspection should be identifiable with the carcass from which they were removed until inspection has been completed. Blood of slaughtered animal intended for human consumption should, until inspection has been completed, be so retained as to permit identification with the carcass or carcasses from which the blood was derived.

6.2.3.3 Except with the permission of the inspector no person should, prior to the inspection of any carcass being completed, remove any serous membranes or any other part of the carcass; or modify, or obliterate any evidence of disease in the carcass or organ by washing, scraping, trimming, stripping or otherwise treating the carcass; or remove any mark of identification from the carcass: head or viscera until the inspector has completed his inspection and given his decision. No person should remove from the inspection area of an abattoir any part of any carcass, organ, or any viscera, until the inspector has completed his examination and a decision has been given.

6.2.3.4 Viscera should be examined as they are removed from the carcass; and/or after their removal from the carcass, in which case they should be clearly identifiable with the carcass until inspection has been completed.

### **6.3 Retention of carcasses and viscera**

Any carcass found to be diseased, suspected of disease or any abnormality which requires a more detailed examination, should be suitably branded and retained under the supervision of the inspector, and kept separate from carcasses, viscera and heads which have been inspected. The relevant parts of that animal should be assembled for veterinary examination. The veterinarian may perform or require any further examination and any laboratory test he deems necessary for reaching a final decision.



6.3.1 The method of identification which denotes that a carcass and viscera have been retained for further inspection should be laid down by the Competent authority.

6.3.2 Where in the opinion of the inspector a more detailed post-mortem examination; a microbiological, parasitological, chemical or histopathological examination; or any other examination necessary to render a judgement on a carcass or viscera, is required, he should take all the necessary specimens from such carcass or viscera.

6.3.3 The final responsibility as to the decision on fitness for human consumption rests with the veterinary inspector.

#### 6.4 Post-mortem inspection by species

##### 6.4.1 Adult bovines and bovine calves over six weeks of age

6.4.1.1 *Inspection of heads* - A head which has been skinned and washed clean is ready for inspection after the base of the tongue has been detached so as to give access to the masticatory muscles and lymph nodes. Where head loops are used the lymph nodes may be incised and examined before the tongue is dropped. The head including the oral and nasal cavities should be viewed. The sub-maxillary (*lymphonodi mandibulares*), parotid (*lymphonodi parotidei*) and retropharyngeal lymph nodes (*lymphonodi retropharyngei*) shall be examined by viewing and multiple incisions. The muscles of mastication should be viewed and incised. One or more linear incisions should be made parallel to the lower jaw into the external and internal muscles of mastication. The tongue should be viewed and palpated and, an incision should be made into the root of the tongue without mutilation of the blade. The lips and gums should be viewed.

6.4.1.2 *Inspection of viscera should be done to examine the following;*

- a) *Gastro-intestinal tract:* viewing of stomachs and intestines and if necessary, palpation. Viewing and if necessary, palpation and incision of the mesenteric lymph nodes (*lymphonodi mesenterici*), provided they are not obviously diseased. The oesophagus should be separated from its attachment to the trachea and viewed.
- b) *Spleen:* Viewing of organ, palpation, and if necessary, incision. Whenever required a smear of the spleen pulp should be taken.
- c) *Liver:* Viewing and palpation of entire organ. The portal lymph nodes (*lymphonodi hepatici* (portales)) should be incised provided they are not obviously diseased. The large bile duct should be opened up by an incision of at least three centimeters in length. Where necessary for reaching a diagnosis one or more incisions should be made deep enough to open up bile ducts and liver substance. The gall bladder should be viewed and, if necessary, palpated.
- d) *Lungs:* viewing and palpation of the entire organ. Viewing and incision of bronchial and mediastinal lymph nodes (*lymphonodi tracheobronchiales et mediastinales*) provided they are not obviously diseased. If necessary an incision should open up the larynx, trachea and bronchi. A transverse incision across the lower part of the diaphragmatic lobe should open up the bronchi.
- e) *Heart:* viewing of the heart after the pericardium has been opened. One or more incisions should be made from base to apex or alternatively the heart may be everted and shallow incisions made so that the cardiac valves and muscle tissue can be inspected.
- f) *Uterus:* Viewing, palpation and if necessary, incision\*

\* If incisions are made, every precaution should be taken to prevent contamination of the premises, equipment and personnel.

g) *Udder*: viewing of the udder, palpation and, if necessary, incision\*. When the udder has been or is in lactating state, incision\* of the supramammary lymph nodes (*lymphonodi inguinales superficiales*) should be a routine procedure. If the udder is destined for human consumption, incision of the organ itself should be a routine procedure.

h) *Kidneys*: enucleation, viewing and, if necessary, palpation and incision.

i) *Testicles*: (where they are saved for human consumption): viewing and palpation.

**6.4.1.3 Inspection of carcasses** - The carcass should be examined to ascertain condition, efficiency of bleeding, colour, condition of serous membranes (pleura and peritoneum); abnormalities, cleanliness and odour. The skeletal muscles, including the attached fat and connective tissues, the bones, especially those which have been cut and exposed during the splitting of the carcass, the joints, the tendon sheaths, the diaphragm and the pleura and the peritoneum, should be viewed and, if necessary, palpated and incised. The triceps brachii muscle should be incised. The following lymph nodes should be viewed, palpated and, if necessary, incised:

- a) Pre-scapular
- b) superficial inguinal (supra-mammary) (*lymphonodi inguinales superficiales*)
- c) external and internal iliac (*lymphonodi iliaci*);
- c) pre-crural (*lymphonodi cervicales profundi caudales*);
- d) renal (*lymphonodi renales*).

NOTE — In all animal's reaction to the tuberculin test and in those carcasses and viscera in which tubercular lesions are found, the main carcass lymph nodes should be examined. A similar procedure should be carried out in all cases in which a systematic or generalized disease is suspected to exist.

#### 6.4.2 Calves up to six weeks of age

**6.4.2.1 Inspection of heads of calves up to six weeks of age** - For inspection, heads should be skinned, or scalded and dehaired, and then washed clean. The head, and particularly oral and nasal cavities, lips and gums, sub-maxillary (*lymphonodi mandibulares*), parotid (*lymphonodi parotidei*) and retropharyngeal (*lymphonodi retropharyngei*) lymph nodes shall be examined. If necessary, lymph nodes and masseter muscles should be incised and the tonsils examined and then removed.

#### 6.4.2.2 Inspection of viscera

- a) *Gastro-intestinal tract*: viewing of stomachs and intestines, and if necessary, palpation. Viewing and, if necessary, palpation and incision\* of the mesenteric lymph nodes (*lymphonodi mesenterici*), provided they are not obviously diseased.
- b) *Spleen*: viewing of organ, palpation and if necessary, incision. Whenever required a smear of the spleen pulp should be taken.
- c) *Liver*: viewing, palpation and, if necessary, incision of organ and portal lymph nodes (*lymphonodi hepatici (portales)*). The gall bladder should be viewed and if necessary palpated.
- d) *Lungs*: viewing and palpation of the entire organ. Viewing, palpation and, if necessary, incision of bronchial and mediastinal lymph nodes (*lymphonodi tracheobronchiales et mediastinales*) provided they are not obviously diseased. If necessary, an incision should open up the larynx, trachea and bronchi. A transverse incision across the lower part of the diaphragmatic lobe should open up the bronchi.

- e) *Heart*: viewing and palpation of the heart after the pericardium has been opened. Where *Cysticercus bovis* is endemic the heart should be opened.
- f) *Kidneys*: enucleation, viewing and if necessary, palpation and incision.

#### 6.4.2.3 Inspection of carcasses

The carcass should be examined to ascertain condition, efficiency of bleeding, colour, condition of serous membranes (*pleura and peritoneum*); abnormalities, cleanliness and odours. The skeletal muscles, the fat, particularly the kidney capsule, the bones which have been exposed to split, the joints, the tendon sheaths the diaphragm, the pleura, the peritoneum and the umbilical region should be viewed, and if necessary, incised. The following lymph nodes should be viewed, palpated and if necessary incised:

- a) Pre-scapular
- b) superficial inguinal (supra-mammary) (*lymphonodi inguinales superficiales*)
- c) external and internal iliac (*lymphonodi iliaci*);
- c) pre-crural (*lymphonodi cervicales profundi caudales*);
- d) renal (*lymphonodi renales*).

NOTE — In all animals reacting to the tuberculin test and in those carcasses and viscera in which tubercular lesions are found, the main carcass lymph nodes should be examined. A similar procedure should be carried out in all cases in which a systematic or generalized disease is suspected to exist.

6.4.2.4 In the inspection of young calves' particular attention should be paid to:

- a) intestines;
- b) serous membranes;
- c) texture and development of muscles;
- d) colour of carcass;
- e) appearance and consistency of renal fat;
- f) navel region;
- g) joints.

#### 6.4.3 Ovines and caprines

##### 6.4.3.1 Inspection of heads of ovines and caprines

A head which has been skinned and washed clean is ready for inspection. If necessary, the base of the tongue should be detached as to give access to the masticatory muscles and the regional lymph nodes. The surfaces of the head as well as the nasal and oral cavities should be viewed. If necessary, the tongue should be viewed, palpated and incised. Lymph nodes should be incised only when required.

6.4.3.2 Inspection of viscera of ovines and caprines should be done to examine the following:

- a) *Gastro-intestinal tract*: viewing of stomach and if necessary, palpation. Viewing, and if necessary, palpation and incision\* of associated lymph nodes.

- b) *Spleen*: viewing, and if necessary, palpation and incision.
- c) *Liver*: viewing and palpation of organ and hepatic lymph nodes (*lymphonodi hepatici portales*), and if necessary, incision of organ and lymph nodes. Viewing of gall bladder and if necessary, palpation.
- d) *Lungs*: viewing and palpation and if necessary, incision of lungs, bronchial and mediastinal lymph nodes (*lymphonodi tracheobronchiales et mediastinales*). If necessary, an incision should open up the larynx, trachea and bronchi. A transverse incision across the lower part of the diaphragmatic lobe should open up the bronchi.
- e) *Heart*: viewing after removal of pericardium and incision if necessary.
- f) *Uterus*: in adult animals, viewing and if necessary, palpation.
- g) *Udder*: in adult animal, viewing and if necessary, palpation.
- h) *Kidneys*: enucleation, viewing and if necessary, palpation and incision.
- i) *Testicles*: (where they are saved for human consumption) viewing and palpation.

**6.4.3.3** *Inspection of carcasses of ovines and caprines* should be done to ascertain condition, efficiency of bleeding, colour, condition of serous membranes (pleura and peritoneum); abnormalities, cleanliness and odours. The skeletal muscles, including the attached fat and connective tissues, the bones, the joints, the tendon sheaths, the diaphragm and the pleura and the peritoneum, should be viewed and if necessary palpated and incised. Also, the following lymph nodes should be viewed, palpated, and if necessary incised:

- a) superficial inguinal (supra-mammary) (*lymphonodi inguinales superficiales*)
- b) external and internal iliac (*lymphonodi iliaci*);
- c) pre-pectoral (*lymphonodi cervicales profundi caudales*);
- d) renal (*lymphonodi renales*).

When a systemic or generalized disease is suspected to exist, the main carcass lymph nodes should be examined.

#### 6.4.4 *Porcines*

6.4.4.1 *Inspection of heads of porcines* – The surface of the head as well as the oral and nasal cavities should be viewed. The sub-maxillary lymph nodes (*lymphonodi mandibulares*) should be incised and the cut surface examined. The parotid (*lymphonodi parotidei*), and retropharyngeal lymph nodes (*lymphonodi retropharyngei*), should be incised if necessary. Where *Cysticercus cellulosae* is prevalent, the outer muscle of mastication and the root of the tongue should be incised, and the blade of the tongue viewed and palpated. The tonsils should be removed if necessary. The head should be split lengthwise if necessary.

6.4.4.2 Inspection of viscera of porcines should be done to examine the following:

- a) *Gastro-intestinal tract*: viewing of stomach and intestines and if necessary, palpation. Viewing, and if necessary, palpation and incision\* of associated lymph nodes.
- b) *Spleen*: viewing, and if necessary, palpation and incision.

- c) *Liver*: viewing and palpation of organ and hepatic lymph nodes (*lymphonodi hepatici portales*), and if necessary, palpation.
- d) *Lungs*: viewing and palpation and if necessary, incision of lungs, bronchial and mediastinal lymph nodes (*lymphonodi tracheobronchiales et mediastinales*). If necessary, an incision should open up the larynx, trachea and bronchi. A transverse incision across the lower part of the diaphragmatic lobe should open up the bronchi.
- e) *Heart*: viewing of the heart after the pericardium has been opened, and incision to expose the cardiac valves if necessary. Where *C. cellulosae* is prevalent, the opening up of the heart and a deep incision into the septum should be an inspection procedure.
- f) *Uterus*: viewing and, particularly where sows are concerned, palpation and if necessary, incision\*
- g) *Kidneys*: enucleation, viewing, and if necessary, palpation and incision.

6.4.4.3 Inspection of carcasses of porcines should be done to ascertain condition, efficiency of bleeding, colour, condition of serous membranes (pleura and peritoneum); abnormalities, cleanliness, where applicable proper scalding and dehairing; and adours. The skeletal muscles, including the attached fat and connective tissues, the bones, especially those which have been cut and exposed during the splitting of the carcass, the joints, the tendon sheaths, the diaphragm and the pleura and the peritoneum, should be viewed and if necessary palpated and incised. The site of castration should be palpated and if necessary incised. When a systemic or generalized disease is suspected to exist, the main carcass lymph nodes should be examined. Meat inspection measures should be taken to protect the public adequately from trichinosis. Also, the following lymph nodes should be viewed, palpated and if necessary incised:

- a) superficial inguinal (supra-mammary) (*lymphonodi inguinales superficiales*);
- b) iliac (*lymphonodi iliaci*);
- c) renal (*lymphonodi renales*)

## 6.5 Disposition and branding

- a) Carcasses, heads, organs and viscera which as a result of ante- and post-mortem inspection are passed as fit for human consumption without further restrictions should be appropriately branded.
- b) Any meat, heads, organs and viscera which require treatment by heat or by freezing to render them fit for human consumption should be suitably branded and kept under supervision of an inspector until the necessary treatment has been concluded and the carcass can be passed as fit for human consumption.
- c) All carcasses, parts of carcasses, organs and viscera which as a result of ante- and post-mortem inspection are found to be unfit for human consumption, and fetuses, should be held securely to the satisfaction of the inspector until they are branded, stained, rendered, denatured or otherwise destroyed, so excluding them from human food purposes.
- d) The size, shape, and wording of any brand, as well as the colour and composition of marking ink used for the branding of carcasses and organs, should be laid down by the controlling authority and should be uniform throughout the country. Brands and stamps bearing the marks of inspection should be kept clean while in use. They should be held in the custody of the inspector and used only under his supervision.

## 6.6 Operating practices following post-mortem inspection including storage:

- a) Meat passed as fit for human consumption should be handled, stored or transported in a manner that will protect the meat from contamination and deterioration.
- b) Meat passed as fit for human consumption should be removed without undue delay from the dressing area. It should be placed under refrigeration at temperature of 4 °C and under close supervision of the inspector. However, it is permitted to carry out pre-rigor cutting-up and boning. In this event, the meat should be transported directly from the slaughter hall to the cutting-up and boning rooms. These rooms should be temperature controlled and situated near to each other in the same establishment. Cutting-up, boning and packing should be done without delay and immediately thereafter the meat should be transported to chilling rooms or to the processing rooms.
- c) The following provisions should apply where carcasses, parts of carcasses or edible offals are placed in chilling rooms, freezing rooms or frozen storage as the case may be:
- i. Entry should be restricted to personnel necessary to carry out operations efficiently.
  - ii. Doors should not be left open for extended periods and should be closed immediately after use.
  - iii. No chilling room, freezing room or freezer store should be loaded beyond its designed capacity.
  - iv. Where refrigerating equipment is not manned, automatic temperature recorders should be installed.
  - v. If no automatic device is installed temperatures should be read at regular intervals and the readings recorded in a log book.
  - vi. A record should be maintained of all meat placed in or taken out of the chilling room, freezing room or freezer store.
- d) Where carcasses, parts of carcasses or edible offals are placed in a chilling room for chilling, the following provisions should be observed in addition to those in subparagraph (c) of this paragraph:
- i. There should be a reliable method of monitoring the chilling of carcasses or edible offals which are placed in a chilling room for chilling.
  - ii. Meat should be hung or placed in suitable corrosion-resistant trays, in a manner permitting adequate circulation of air around the meat.
  - iii. Meat should be held in a manner which precludes drip from one piece falling on to any other piece.
  - iv. Temperature, degree of relative humidity and air flow should be maintained at a level suitable for the preservation of meat.
- e) Where carcasses, or parts of carcasses, or edible offals are placed in a freezing room for freezing, the following provisions should be observed in addition to those in 8.6 (c):
- i. Meat which is not in cartons should be hung or placed on suitable corrosion resistant trays in a manner permitting adequate circulation of air around the meat. Cartons should be stacked to permit adequate circulation of air around each carton.
  - ii. Meat which is not in cartons should be held in a manner which precludes drip from one piece of meat falling on to any other piece.

- iii. Where meat is held on trays care should be taken to avoid contact between the base of any tray and meat stored beneath.
- iv. Refrigeration coils should be defrosted frequently to prevent excessive accumulation of ice and loss of refrigerating efficiency. Provision should be made for removal, without affecting the product, of water resulting from defrosting.
- f) Where carcasses, or parts of carcasses, or edible offals to be stored are placed in any freezer store, the following provisions should be observed in addition to those in sub-paragraph (c) of this paragraph:
  - i. No meat should be placed in a freezer store until the mean temperature of the meat has been reduced to 7 °C.
  - ii. Meat should not be stacked directly on the floor but should be placed on pallet or on dunnage. Stacks of meat in carcass form or in cartons should be placed so that there is adequate air circulation around the stacks.
  - iii. The freezer store should be operated at a temperature which will give adequate protection to the type of product. Temperature fluctuations in the freezer store should be to a minimum. Where unpackaged meat is stored, the temperature difference between the evaporator and the meat should be kept to a minimum.
  - iv. Refrigerating coils should be defrosted as required to prevent excessive accumulation of ice and loss of refrigerating efficiency. Provision should be made for removal, without affecting the product, of water resulting from defrosting.

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY