

REPORT OF FAO/WHO AD HOC DRAFTING GROUP OF EXPERTS ON A CODE OF  
ANTE-MORTEM AND POST-MORTEM INSPECTION OF SLAUGHTER ANIMALS

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INTRODUCTION

1. At the Eighth Session of the Codex Alimentarius Commission (July 1971) it was considered that there was an urgent need for a code or even a standard to cover ante- and post-mortem inspection. In view of the fact that WHO had commissioned the drafting of such a code it was proposed that a small Ad Hoc group of experts should be established to deal - on the basis of the prepared working paper - with the criteria for the ante- and post-mortem inspection of slaughter animals. The draft elaborated by the Ad Hoc group could be sent to governments for comments, whereafter the Codex Committee on Meat Hygiene could discuss the paper (see paragraphs 167 and 168 of ALINORM 71/31).
2. At the invitation of WHO an Ad Hoc Drafting Group of Experts on Meat Inspection convened in Geneva from 8-10 November 1971. The participants were welcomed by Dr M. Takabe, Director, Division of Communicable Diseases.
3. The Drafting Group consisted of the following experts who had been invited to participate in their individual capacities:

Professor C. Flachet (France)  
Dr K. Gerigk (Federal Republic of Germany)  
Dr A. Ginsberg (New Zealand)  
Dr G. Lockhart Helguera (Uruguay)  
Dr W. R. P. Hildebrand (United Kingdom)  
Dr F. J. Hill (United Kingdom)  
Dr D. L. Houston (United States of America)  
Dr K. McEnroe (United States of America)  
Dr M. Pineiro Pearson (Argentina)  
Dr L. J. L. Rhodes (Australia)



A complete list of the names and addresses of the participants is attached as Appendix I to this Report.

ELECTION OF OFFICERS

4. Dr A. Ginsberg, Dr K. McEnroe and Dr K. Gerigk were elected as Chairman and Vice-Chairmen respectively. Dr W. R. P. Hildebrand and Professor C. Flachet were appointed as Rapporteurs of the meeting. Professor Flachet kindly offered to help with the final translation of the Proposed Draft Code into the French language.

ELABORATION OF DRAFT CODE FOR ANTE- AND POST-MORTEM  
INSPECTION OF SLAUGHTER ANIMALS

5. A preliminary text for the Code had been prepared by Dr A. Ginsberg. The Group considered the paper in detail. The text agreed upon by the Ad Hoc Group is contained in Appendix II of this Report.

Scope

6. The Group decided to specify in the Scope that the Code applied to animals slaughtered in an abattoir or establishment because these were considered the only places where the ante- and post-mortem inspection should be carried out for the purpose of international trade.

Definitions

7. It was agreed that the definitions of the Proposed Draft Code of Hygienic Practice should also apply for the Ante- and Post-Mortem Inspection Code with the exception of the definitions of "Edible Offal" and "Meat" as these two phrases did not appear in the Code (to the extent that a definition seemed warranted). The Group decided not to make any amendments in the various definitions as it could be expected that at the next meeting of the Codex Committee on Meat Hygiene, 10-15 April 1972 in London, the issue would be dealt with on the basis of government comments on the Proposed Draft Code of Hygienic Practice for Fresh Meat, to be discussed at Step 4 of the Procedure.

8. The Group agreed to introduce two additional definitions, namely "Residues" and "Slaughter Animals".

SECTION III - General requirements for slaughter animals

9. The Group noted that there existed a number of different approaches regarding the question of certification of animals sent to abattoirs for slaughter, and agreed that for the purpose of the Code it would suffice to state that the certification should be such as to ensure that the farm from which the animal originated could be traced.

SECTION IV - Specific requirements for ante-mortem treatment

10. Although it was realized that the Code of Hygienic Practice for Fresh Meat covered in detail various aspects of lairages and yards attached to abattoirs, the Group agreed to cover in the Code under discussion some points of particular importance for a proper execution of ante-mortem inspection.

SECTION V - Ante-mortem inspection

11. The Group agreed on a list of prerequisites for ante-mortem inspection and also on the procedure for the ante-mortem inspection.

SECTION VI - Disposition of animal after ante-mortem inspection

12. The Group discussed this section in great detail and decided to provide for animals which should proceed to normal slaughter, conditional slaughter and unconditional elimination from the possibility of slaughter for human consumption.

SECTION VII - Post-mortem meat inspection

13. The Group recognized that the role of meat inspection services was not limited to ensuring that the public is protected from receiving unfit meat but also included the collection of data on the prevalence of animal diseases of public health and economic importance. This information should be communicated to the appropriate authorities.

14. The Group realized that the present Code contained routine meat inspection procedures and recognized that more detailed examination techniques would have to be implemented to cope with the task of meat inspection in its broadest sense.

15. The Group noted the importance of maintaining correlation between the organs and the individual carcasses from which they were derived until the end of the inspection.

16. The Group decided at the present stage not to include a detailed list of diseases and conditions which would lead to partial or total condemnation or conditional release.

17. While discussing the post-mortem inspection of lungs some experts drew attention to a system of inspection which was orientated towards the lungs being used for human consumption. Others indicated that such detailed inspection of lungs did not seem necessary because they did not regard the lungs as being suitable for human consumption in any circumstances. The experts finally decided to include in the Proposed Draft Code a paragraph presupposing the use of lungs for human consumption.

18. The Group discussed the examination of pigs for Trichinae. Whereas some experts were of the opinion that such examination should be obligatory, others held the view that this was only one of a number of control measures and emphasized that other effective approaches to Trichinosis control existed.

#### SECTION IX - Laboratory examination

19. The experts emphasized the need for the necessity of having laboratory services to assist meat inspectors. It was stressed that such services should cover a wide range of laboratory procedures including the detection of residues. The Ad Hoc Group decided to provide for laboratory services in the Code.

#### Future action on the Draft Code

20. The Ad Hoc Group noted that at the next session of the Codex Committee on Meat Hygiene, 10-15 April 1972 in London, the Proposed Draft Code of Hygienic Practice for Fresh Meat would be discussed. The Group agreed that it would be desirable if the document it had elaborated could also be dealt with at the next session of the Codex Committee on Meat Hygiene. It was further agreed that the Proposed Draft Code should be sent to governments as soon as possible so that their comments would be available to the Committee for consideration of the document at Step 2 of the Procedure.

APPENDIX I

LIST OF PARTICIPANTS

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PROPOSED DRAFT CODE OF ANTE-MORTEM AND POST-MORTEM INSPECTION  
OF SLAUGHTER ANIMALS

This Code should be read in conjunction with the Proposed Draft Code of Hygienic Practice for Fresh Meat (ALINORM 71/15, Appendix II).

SECTION I

Scope: This Code applies to the ante-mortem and post-mortem inspection of slaughter animals intended for human consumption and slaughtered in an abattoir or establishment.

SECTION II

Definitions:

For the purpose of this Code:

1. "Abattoir" means premises used for the slaughter of animals for human consumption.
2. "Brand" includes any mark or stamp approved by the controlling authority and also includes any tag or label bearing any mark or stamp.
3. "Carcase" means the whole body of any slaughtered animal after bleeding and dressing.
4. "Cleaning of surfaces" means the removal of objectionable inorganic and organic matter.
5. "Contamination" means the process of direct or indirect transmission of objectionable matters to meat.
6. "Controlling authority" in relation to an abattoir or establishment means the official authority charged by the government with the control of hygiene and meat inspection.
7. "Disinfection of surfaces" means the application of hygienically satisfactory chemical or physical agents and processes to clean surfaces with the intention to inactivate the micro-organisms which may still be present after the cleaning procedure.
8. "Dressed" or "Dressing"
  - (a) in relation to slaughtered animals except for pigs, means the removal of head, hide or skin, viscera (other than kidneys), genital organs, urinary bladder and feet up to the carpal and tarsal joints, and, in the case of lactating female animals, udder; and
  - (b) in relation to slaughtered pigs, means the removal of hair and bristles or skin, claws, eyelids, the external acoustic duct, viscera (other than kidneys), genital organs, and urinary bladder, and in the case of lactating female animals, the udder.
9. "Establishment" means any premises in which fresh meat is produced, prepared, handled, packed or stored.
10. "Fit for human consumption" in relation to meat means an article which has been passed and appropriately marked by an inspector and in which no subsequent changes have been found due to disease, decomposition or contamination.

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11. "Inspector" means a properly trained officer appointed by the controlling authority of a country for the purpose of meat inspection and supervision of hygiene. The supervision of the inspection of meat including meat hygiene should be the responsibility of a veterinarian.

12. "Potable water" means water that is pure and wholesome at the point of usage in accordance with WHO 1971 requirements contained in the "International Standards for Drinking Water".

13. "Residues" means any substance, including metabolites, remaining in slaughter animals at time of slaughter or any of its tissues after slaughter either as a result of treatment of the slaughter animals with antibiotics, anthelmintics, growth promoters, hormones, hormone-like substances, tranquillizers or other therapeutic or prophylactic agents or as a result of exposure to pesticides, radioactive residues or other foreign matters.

14. "Slaughter animals" include cattle, sheep, goats, pigs, solipeds, camels and any other mammal brought into abattoir buildings for slaughter.

SECTION III

General requirements

15. Every animal intended for slaughter for human consumption should

- (a) undergo an ante- and post-mortem inspection;
- (b) should be so marked, appropriately identified or accompanied by an appropriate certificate which would ensure that the farm from which the animal has come can be traced;
- (c) be adequately rested prior to slaughter in clean, well ventilated lairages and yards having drinking troughs supplied with potable water.

SECTION IV

Specific ante-mortem requirements

16. Lairages and yards should be so laid out and constructed as to permit satisfactory ante-mortem inspection of slaughter animals. There should be available for the use of the Inspector all required facilities including adequate lighting and such equipment as restraining devices, squeeze gates and boxes enabling close examination of animals.

SECTION V - Ante-mortem inspection

Purpose of ante-mortem inspection

17. The purpose of ante-mortem inspection is:

- (a) to select for human consumption only those animals which are adequately rested and of which the meat is sound, free from harmful residues and is not objectionable from an aesthetic point of view;
- (b) to remove from normal slaughter animals which although diseased or dangerous to human health might reveal no detectable changes during the post-mortem inspection;

- (c) to select for isolation and detailed clinical examination diseased, suspected diseased or suspected abnormal animals;
- (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 carcase and offals;
- (f) to prevent the slaughter of animals which show abnormal conditions or diseases which would render the carcase and offals unfit for human consumption.
- (g) to select animals which will receive a detailed post-mortem inspection because of clinical signs indicating localized lesions, non-systemic diseases or other conditions which are not likely to give rise to contamination of premises, equipment and personnel.

Prerequisites for ante-mortem inspection

18. No animal should proceed for slaughter until the Inspector has carried out an ante-mortem inspection and has passed the animal for slaughter. Ante-mortem inspection should be carried out daily and the final examination should take place on the day of slaughter. The method of identification of inspected animals should be approved by the controlling authority and should be identical throughout the whole country. It is the duty of the management of the abattoir or establishment to present the animals in such a way that an adequate meat inspection can be carried out.

Ante-mortem inspection procedure

19. Animals should be inspected when they are not excited, in a standing position and in motion.

The following should be noted:

- (a) abnormalities and symptoms of disease;
- (b) species, sex and behaviour of animals, in sick or suspected diseased animals notice should be taken of age, colour and specific markings;
- (c) cleanliness of slaughter animals.

Particular attention should be paid to the following details:

- (i) manner of standing and walking;
- (ii) condition of nutrition;
- (iii) reaction to environment;
- (iv) condition of hide, skin, hair and wool;
- (v) digestive system (salivation rumination, consistency and colour of faeces);
- (vi) appearance of vulva and mammary gland;
- (vii) respiratory system (nostrils, nasal discharge, blood tinged froth, quality of respiration);

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- (viii) injuries, swelling or oedema;
- (ix) body temperature (in suspected or obviously diseased animals);
- (x) blood smear (in cases in which a disease is suspected which could be diagnosed by examining the blood) (as a routine procedure in slaughter of camels);
- (xi) as certain diseases or disease symptoms have sites of predilection in different species, it is essential that attention should be paid to these sites.

SECTION VI

Disposition of animal after ante-mortem inspection

- 20. 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 but whatever procedure has been adopted it should be the same throughout the country.
- 21. An animal is released for slaughter without any restriction when the ante-mortem inspection has revealed no evidence of any abnormal condition or disease.
- 22. If during the ante-mortem inspection any disease or condition has been noted which should not obviously prevent the animal from being slaughtered for human consumption, the animal should be identified, released for slaughter and further post-mortem veterinary inspection.
- 23. Where disease symptoms are doubtful the animal should be withdrawn from slaughter and placed in an isolation pen set aside for this purpose for observation or treatment, or slaughtered under special conditions to preclude contamination of the premises, equipment and personnel.
- 24. Where symptoms indicate a systemic affection, 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 forthwith as unfit for human consumption or where appropriate set aside and remain under the control of the veterinary authority until a further decision regarding disposition is taken.
- 25. Animals exhibiting normal behaviour but known to have been treated or given drugs or chemicals should be either condemned or withheld from slaughter until the drug or chemical is metabolized to harmless end products by the body or excreted.

SECTION VII - Post-mortem inspection

A. General

Purpose of post-mortem inspection

- 26. The post-mortem inspection should ensure the detection of abnormalities and lesions and pass for human food only meat which is fit for human consumption.

Prerequisites for post-mortem inspection

- 27. Before a post-mortem inspection of slaughter animals is to commence it is the duty of the Inspector to ensure 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 or establishment to present the carcasses and viscera in such a way that an adequate inspection can be carried out.

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It is essential for the prevention of contamination of carcasses and viscera that the basic requirements of hygiene such as laid down by the Code of Hygiene Practices for Fresh Meat are strictly enforced and that the labour force slaughtering and dressing carcasses is fully aware of their own vital part in maintaining a satisfactory level of meat hygiene.

In particular, the following points should be noted:

- (i) dressing of carcasses should be performed without delay and in a sanitary manner so as to avoid contamination with, e.g. faeces, ingesta, bile, urine, hair and wool;
- (ii) washing of carcasses must not take place until post-mortem inspection has been completed;
- (iii) tools and equipment contacting edible products should be disinfected between carcasses unless the carcasses have been inspected and passed;
- (iv) establishment employees and Inspectors should wash their hands frequently and in each instance after handling diseased material;
- (v) all condemned carcasses, condemned parts of a carcass, condemned viscera, and foetuses should remain under an Inspector's visual supervision or under seal or lock until they are rendered, denatured or otherwise destroyed, so excluding them from human food purposes.

Inspection procedure

28. (a) An Inspector carrying out a post-mortem inspection of carcass and organs should view, palpate and where necessary incise. This inspection should be carried out in a systematic manner.
- (b) Where in the opinion of the Inspector there is required
- (i) a more detailed post-mortem examination;
  - (ii) a bacteriological, chemical or histopathological examination; or
  - (iii) any other examination necessary to render a judgement of a carcass or viscera;
- he should take all the necessary specimens from such carcass or viscera. The final responsibility as to the decision on fitness for human consumption rests with the veterinary Inspector.
29. Where a lymph node, organ or any carcass tissue is being incised by the Inspector, the cut surface should be cleanly sliced in order to present a picture which is not distorted either from an anatomical or a pathological point of view.
30. Viscera should be examined:
- (i) as they are removed from the carcass;
  - (ii) after their removal from the carcass (clearly identifiable with the carcass until it has been passed).

The viscera should be inspected by viewing, palpation and, if necessary, incision. If so required for diagnosis or final judgement, any part, portion or piece of the viscera including organs may be taken for laboratory examination.

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31. (a) Any carcase and viscera which in the opinion of an Inspector require a more detailed macroscopical examination or specific laboratory tests should be suitably marked and safely retained under the supervision of the Inspector.
- (b) The marking which denotes that a carcase and viscera had been "retained" for further inspection should be laid down by the controlling authority and should be uniform throughout the country.
32. Except with the permission of the Inspector, no person should, prior to the inspection of any carcase being completed, (i) remove any serous membrane or any other part from the carcase; or (ii) remove, modify, or obliterate any evidence of disease in the carcase or organ by washing, scraping, trimming, stripping or otherwise treating the carcase or organ.
33. (a) No person should remove from the inspection area of an abattoir any part of any carcase, organ, viscera until the Inspector has completed his examination and declared the carcase, organ or viscera as fit for human consumption and it has been branded.
- (b) The head, organs, viscera and any other part of a carcase required for post-mortem inspection should be positively identified with the carcase from which they were removed until inspection has been completed. Blood of slaughtered animals intended for human consumption should be so retained as to permit identification with the carcase or carcasses from which the blood was derived until inspection has been completed.

Disposition or marking of carcasses

34. (a) Carcasses, organs and viscera which in the opinion of the Inspector are fit for human consumption without further restrictions should be appropriately branded as "passed".
- (b) Any carcase which requires treatment by heat or by freezing to render it fit for human consumption should be suitably branded and kept under supervision of an Inspector or under seal or lock until the necessary treatment has been concluded and the carcase can be passed as fit for human consumption.
- (c) Carcasses, organs and viscera which are in the opinion of the Inspector unfit for human consumption should be marked "condemned" with a brand of a shape and size which is readily differentiated from the brand "passed".
- (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.

B. Cattle including calves and other bovine species

Methods of slaughter

35. The Inspector should carry out routine checks on the manner and methods of handling animals, stunning, shackling and bleeding.
36. (a) The Inspector should remember that where a captive bolt pistol is used for stunning, pieces of skin, bone or hair may be carried into the brain.
- (b) Where for the purpose of stunning, frangible-type bullets or lead is used the Inspector should remember that these bullets may be found in the brain in toto or in particles.
- (c) Any method of stunning which causes foreign bodies to enter the brain or causes a haemorrhage of the affected brain or neck tissues requires these tissues to be condemned.

Handling of carcasses

37. Where bovines are dressed in a hanging position, the dressing procedure should include the tying of the oesophagus and rectum to prevent the escape of gastro-intestinal contents.
38. Slaughtered bovines should be of sufficient distance apart before inspection to prevent contamination of skinned parts of adjacent carcasses either by the hide or feet.
39. (a) Heads should be removed in a manner which prevents contamination.
- (b) Skinned or partially skinned heads should not come in contact with the floor.
- (c) Before the heads including their nasal and oral cavities are washed, they should be skinned and dehorned.

Washing of heads should be carried out in such a manner as to prevent contamination of surrounding areas or meat.

Inspection of heads

40. (a) Any head which has been skinned, washed and hung up or placed on special metal head loops 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.
- (b) The Inspector should view the head, oral and nasal cavities. He should then examine in detail by viewing, palpation and incision the sub-maxillary (lymphonodi mandibulares), parotid (lymphonodi parotidei) and retropharyngeal lymph nodes (lymphonodi retropharyngei). The tonsils should be removed under his supervision. He should view and incise the muscles of mastication. One or more linear incisions should be made parallel to the lower jaw with the external muscle of mastication and one incision into the internal muscle of mastication. The tongue should be viewed and palpated and, if necessary, an incision should be made into the root of the tongue without mutilation of the blade. The muzzle, lips and gums should be viewed.

Inspection of viscera

41. The following viscera should be examined:

(a) Gastro-intestinal tract: viewing, palpation and, if necessary, incision of the mesenteric lymph nodes (lymphonodi mesenterici), provided they are not obviously diseased.

(Note: In countries where the eradication of bovine tuberculosis has been accomplished the incision of the mesenteric lymph nodes in slaughtered cattle serves as a valuable indicator of the stability of the disease free situation or a possible break down.)

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 of entire organ and palpation of parietal surface and area within the renal impression. Palpation should be done with sufficient pressure with the hand and fingers to detect deep cysts and abscesses within the liver. 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 3 cm in

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length. Where necessary for reaching a diagnosis one or more incisions should be made deep enough to open up bile ducts and liver substance.

(d) Lungs: viewing, palpation with both hands on entire organ. Viewing and incision of bronchial and mediastinal lymph nodes (lymphonodi tracheobronchiales et mediastinales) provided they are not obviously diseased.

Where lungs are used for human consumption an exploratory incision should open up the trachea and bronchi. A transverse incision across the lower part of the diaphragmatic lobe should open up the bronchi.

(e) Heart: viewing of heart after pericardium has been opened up. One or more exploratory incisions into the heart should be made from base to apex or the heart can be everted for inspection and some shallow incisions without perforating the heart wall can be made.

(f) Uterus: viewing, palpation and, if necessary, incision. If the last is made every precaution should be taken to prevent any contamination of the premises, equipment and personnel.

(g) Udder: viewing of the udder, palpation and, if necessary, incision. When the udder is destined for human food, palpation and incision of the supra-mammary lymph nodes (lymphonodi inguinales superficiales) and organ itself should be a routine procedure but care should be exercised when incising the udder to prevent contamination of the premises, equipment and personnel.

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

Inspection of carcasses

42. (a) The carcass should be examined to ascertain:

- (i) condition;
- (ii) efficiency of bleeding;
- (iii) colour;
- (iv) condition of serous membranes (pleura and peritoneum);
- (v) abnormalities;
- (vi) cleanliness.

(b) The diaphragm and any other muscle and bone surfaces which have been cut and exposed during the splitting of the carcass should be viewed.

(c) The following lymph nodes should be viewed, palpated and if necessary incised:

- (i) superficial inguinal (supra-mammary) (lymphonodi inguinales superficiales);
- (ii) external and internal iliac (lymphonodi iliaci);
- (iii) pre-pectoral (lymphonodi cervicales profundi caudales);
- (iv) renal (lymphonodi renales);

(v) in all animals reacting to the tuberculin test and in those carcasses and viscera in which tubercular lesions are found, a sufficient number of lymph nodes should be examined to ensure the proper disposition of the carcass and viscera. A similar procedure should be carried out in all cases in which a systemic or generalized disease may exist.

Calves

43. The post-mortem inspection of viscera and carcasses of calves is in principle the same as that for cattle. However in young calves the incision of the muscles of mastication and the opening of the heart may be omitted but particular attention should be paid to:

- (a) texture of muscles;
- (b) development of muscles;
- (c) colour of carcass;
- (d) appearance of renal fat;
- (e) navel region;
- (f) joints;
- (g) testicles.

C. Horse

44. The post-mortem inspection of the horse and other solipeds used for human consumption is in principle the same as for cattle but particular attention should be paid to the following:

Inspection of heads

The head should be split lengthwise in the medial line and the nasal septum should then be removed for careful viewing.

The mucous membranes of the nasal cavity, larynx, pharynx and trachea should be viewed.

The muscles of mastication are not incised.

D. Sheep and goats

45. The Inspector should carry out routine checks stated in sub-section VII.B.(35 and 36).

Inspection of heads

46. The surfaces of the head as well as the nasal and oral cavities should be viewed.

Lymph nodes should only be incised when required.

Inspection of viscera

47. The following viscera should be examined:

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- (a) Gastro-intestinal tract: viewing of stomachs and intestines and if necessary palpation. Viewing and if necessary palpation and incision of associated lymph nodes.
- (b) Spleen: viewing and if necessary palpation.
- (c) Liver: viewing and thorough palpation of organ and hepatic lymph nodes (lymphonodi hepatici (portales)), and if necessary incision of organ and lymph nodes.
- (d) Lungs: viewing and palpation of lungs, bronchial and mediastinal lymph nodes (lymphonodi tracheobronchiales et mediastinales), if necessary incision.
- (e) Heart: viewing after removal of pericardium.
- (f) Uterus: in adult animals viewing and if necessary palpation.
- (g) Udder: in adult animals viewing and if necessary palpation.
- (h) Kidneys: enucleation, viewing and if necessary palpation and incision. In lambs enucleation only if necessary.
- (j) Testicles: viewing and palpation.

Inspection of carcasses

48. The carcass and body cavities should be viewed. Principal lymph nodes should be palpated and if necessary incised.

E. Pigs

49. The Inspector should carry out routine checks on the manner and methods of handling animals, stunning, shackling and bleeding as stated in sub-section VII.B.(35 and 36).

Inspection of heads

50. The viewing of the head should serve to detect any abnormalities and assess the cleanliness of the head.

The sub-maxillary lymph nodes (lymphonodi mandibulares), should be incised and the cut surfaces examined. The parotid (lymphonodi parotidei), and retropharyngeal lymph nodes (lymphonodi retropharyngei), should be incised if necessary.

Where C. cellulosa 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.

Inspection of viscera

51. The following viscera should be examined:

- (a) Gastro-intestinal tract: viewing and if necessary palpation of stomach and intestines. Viewing, palpation and if necessary incision of associated lymph nodes. These lymph nodes should be incised if any lesions have been observed in the sub-maxillary lymph nodes.
- (b) Spleen: viewing and if necessary palpation and incision.
- (c) Liver and lymph nodes: viewing and palpation and if necessary incision.

(d) Lungs: The bronchial lymph nodes (lymphonodi tracheobronchales), should be palpated and if necessary incised. The lungs should be viewed and palpated.

Where lungs are used for human consumption the diaphragmatic lobe should be incised transversely to open up bronchi.

(e) Heart: viewing after the pericardium has been opened. One or more exploratory incisions may be made.

Where C. cellulosa 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. If the last is carried out every precaution should be taken to prevent any contamination of the premises, equipment and personnel.

(g) Kidneys: enucleation, viewing and if necessary palpation and incision.

#### Inspection of carcasses

52. (a) The carcass should be examined visually to ascertain:

- (i) condition;
- (ii) efficiency of bleeding;
- (iii) colour;
- (iv) condition of serous membranes (pleura and peritoneum);
- (v) abnormalities;
- (vi) cleanliness.

(b) The diaphragm and any other muscle and bone surfaces which have been cut and exposed should be viewed.

(c) The following lymph nodes should be viewed, palpated and if necessary incised:

- (i) superficial inguinal (supra-mammary) (lymphonodi inguinales superficiales);
- (ii) iliacs (lymphonodi iliaci);
- (iii) renal (lymphonodi renales);
- (iv) if in any post-mortem examination lesions are found which are indicative of the possibility of a systemic or generalized disease a sufficient number of carcass and visceral lymph nodes should be incised and examined to ensure the proper disposition of the carcass and viscera.

(d) Countries should have measures in force in their meat inspection system to protect the public adequately from trichinosis.

#### F. Camels

Post-mortem inspection should be conducted as in cattle.

Appendix II

SECTION VIII

Retention of carcasses

53. Any carcass and viscera found to be diseased, suspected of disease or showing any abnormality which requires a more detailed examination should be identified and retained under the supervision of the Inspector until a final decision has been given by the Inspector.

SECTION IX

Laboratory examination

54. (a) Laboratories should provide the Inspector with the information he requires in doubtful cases involving abnormalities, diseases or residues and in which a macroscopical inspection alone cannot provide the evidence required for passing a judgement on a carcass and viscera.

(b) Samples should be properly identified and accompanied by fully explanatory information.

(c) Care should be taken to ensure that samples arrive at the laboratory in good condition.