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REPORT OF THE  
CODEX COMMITTEE ON MEAT  
Fifth Session  
16 - 20 November 1970  
Bonn, Federal Republic of Germany

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REPORT OF THE FIFTH SESSION OF THE  
CODEX COMMITTEE ON MEAT  
16-20 November 1970  
Bonn, Federal Republic of Germany

INTRODUCTION

1. The Codex Committee on Meat held its Fifth Session in Bonn, Federal Republic of Germany, from 16 to 20 November 1970 by courtesy of the Government of the Federal Republic of Germany under the Chairmanship of MinR Dr. J. Panek.
2. The participants were welcomed by Min. Dir. Dr. R. Baath, Bundesministerium für Ernährung, Landwirtschaft und Forsten, in the name of the Minister.
3. Representatives from the following thirty countries were present: Australia, Austria, Belgium, Brazil, Czechoslovakia, Denmark, Finland, France, Federal Republic of Germany, Hungary, Ireland, Israel, Italy, Japan, Kenya, Luxembourg, Netherlands, New Zealand, Norway, Philippines, Poland, Saudi Arabia, Sweden, Switzerland, Thailand, Tunisia, United Arab Republic, United Kingdom, United States of America and Uruguay and observers were present from the European Economic Community (EEC). Officers of FAO and WHO were also present. A list of participants is contained in Appendix I to this Report.

ELECTION OF RAPPORTEURS

4. On the proposal of the Chairman, the Committee appointed Dr. G. Wight (United Kingdom), Prof. Dr. F.C. Flachet (France) and Prof. Dr. O. Prändl (Austria) as Rapporteurs of the Session.

ADOPTION OF PROVISIONAL AGENDA

5. The Committee adopted the Provisional Agenda with a slight re-arrangement of the order of items.

PROPOSED DRAFT CODE OF HYGIENIC PRACTICE FOR FRESH MEAT

6. The Committee had before it document CX/MMP/70/3 which contained the Report of an Ad Hoc Drafting Group of Experts on a Code of Hygienic Practice for Fresh Meat held in Geneva in March 1970 and the Proposed Draft Code of Hygienic Practice for Fresh Meat. In the preparation of the Draft Code consideration had been given to:
  - (a) Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969)
  - (b) Australia's document on the Transportation and Storage of Carcasses and Cuts of Meat (CODEX/MEAT/69/3)
  - (c) (i) The OECD Code of Sanitary Regulations for International Trade in Slaughter Stock and Fresh Meat (AGR/T (66) I, 2nd revision, January 1968)
  - (ii) Comment on (c) (CODEX/MEAT/69/2 and AGR/T (69)2)
  - (d) Proposed Draft Code of Hygienic Practice for Processed Meat Products and Consumer Packaged Meat (ALINORM 70/16, Appendix II).

The Committee proceeded to a detailed examination of the Proposed Draft Code in Appendix I of document CX/MMP/70/3 in the light of Government comments which had been compiled in document CX/M/70/2.

## GENERAL DISCUSSION

7. The Committee first discussed the Code in general. The delegation of New Zealand pointed out the urgency of elaborating a Code of Hygienic Practice for Meat to facilitate international trade and ensure the protection of the health of the consumer.
8. The Committee considered whether those matters should be the subject of a Code of Hygienic Practice or a Standard. Some delegations were of the opinion that there was a need for a standard because of the importance of meat hygiene for the protection of human health. Other delegations pointed out that it might be possible to make certain provisions of the Code mandatory by their insertion into the relevant sections of standards for meat, should such standards be elaborated. Although it was agreed that a standard might have certain advantages and might be feasible in the case of abattoirs or establishments slaughtering for export, it would however be premature to consider elaborating a standard as many countries would not be in a position to apply it to all abattoirs slaughtering for domestic consumption as would be required under the full acceptance procedure of the Commission. The Committee therefore decided to proceed with the elaboration of a Code of Hygienic Practice for Fresh Meat. The delegation of the Federal Republics of Germany pointed out that there was already in existence a directive by the EEC on fresh meat which was binding for the six member countries and that there was work in progress on a directive on sanitary requirements. Although the draft Code of Practice elaborated by the Committee deviated to a certain extent from these directives, the delegation of the Federal Republic of Germany welcomed this work and considered that the results would be very useful and that they would most willingly cooperate. The delegation of the Federal Republic of Germany stated that the Code of Practice would certainly influence the EEC work but would not, of course, be finally binding. This statement was supported in principle by the delegations from EEC member countries.
9. Regarding the question of whether the Code should refer specifically to meat intended for export, some delegations saw difficulties in applying all the provisions of the Code to slaughterhouses supplying the local market. The Committee decided to delete the reference to "Meat supply in international trade" in the Scope Section of the Code.

## TITLE OF THE CODE

10. The Committee considered whether the title of the Code should not be extended so that it would read "Proposed Draft Code of Hygienic Practice for Fresh Meat and Edible Offal". Some delegations stated that the legislation of some countries defined "meat" as being identical with muscular tissues which thus did not cover the edible offal and that it would therefore be advisable to show in the title that this Code dealt with the hygiene of edible offal too. The general consensus was however that as meat as defined in Section II on Definitions also covered edible offal, there was therefore no need for offal to be mentioned in the title. It was also proposed to limit the title of the Code to "Meat" as distinct from "Fresh Meat". The Committee decided however against the background of the decision reached for the definition for meat, to leave the title of the Code as originally proposed: "Proposed Draft Code of Hygienic Practice for Fresh Meat".

## SCOPE

11. Following a proposal of the delegation of France, the Committee agreed that meat suitable for consumption must comply with the following conditions:
1. animals must be in a condition of good health;

2. they must be submitted to an ante-mortem and post-mortem inspection;
3. the meat must be prepared, handled, packed, stored and transported under satisfactory hygienic conditions.

It also recognized that at this stage the Code mainly provided for the hygienic conditions listed under 3. This, however, was due to the fact that the FAO Council had specifically requested that this aspect be given priority. The Committee considered that work should be undertaken on the development of a Code covering items 1 and 2 above as soon as possible, so that the entire field of the production of wholesome meat would be covered.

## 12. DEFINITIONS

### "Abattoir"

The delegation of Australia pointed out that the approval or registration of abattoirs and meat packing establishments should be provided for in Section IV - Establishment Facilities and Operating Requirements - of the Code. Therefore the Committee decided to change the definition to read as follows: "Abattoir" - means premises used for the slaughter of animals for human consumption.

### "Approved"

It was thought by the delegations of Australia and New Zealand that to avoid confusion it would be better to delete the definition of "approved". The Committee agreed with this proposal.

### "Brand"

The Committee decided to deal with this matter as a separate issue. See paragraph 28 of this report.

### "Carcase"

The delegation of the Federal Republic of Germany pointed out that "carcase" was understood to mean the whole body of the slaughtered animal and not the parts therefrom. The Committee agreed to change the definition to read as follows: "Carcase" means the whole body of any slaughtered animal after bleeding and dressing.

### "Casing"

The Committee agreed to delete the definition of "casing", as in the Code it was referred to only once. It was agreed that the definition of "edible offal" covered those parts of the alimentary tract which could be used for food including casings.

### "Cleaning"

In order to place equal emphasis on all aspects of hygiene, not only on the elimination of conditions favourable for the growth of microorganisms, the delegation of Denmark proposed a change in the wording as follows: "Cleaning of surfaces" means the removal of objectionable inorganic and organic matter. The Committee agreed to the Danish amendment.

### "Contamination" (new definition)

As frequent reference is made in the Code to the term "contamination" the Committee decided to accept a proposal by the delegation of Denmark - slightly modified - to define contamination as follows: "Contamination" means the process of direct or indirect transmitting of objectionable matter to the meat.

### "Controlling authority"

Following the modification of the definition of "Abattoir" and the deletion of the definition of "Approved" the Committee decided to accept a proposal of the delegation Switzerland for the rewording of the definition as follows: "Controlling authority" in relation to an abattoir or establishment means the official authority charged by the Government with the control of the hygiene and meat inspection.

### "Defect"

The Committee agreed to delete this definition.

### "Dressing"

The Committee agreed on the following changes:

- i) to amend the title to read: "Dressed" or "Dressing", as both terms are used in the text;
- ii) to specify where the hooves should be separated from the carcass by inserting in the definition ..... feet up to the carpal and tarsal joints, and in the case ...;
- iii) to specify in relation to the dressing of pigs the removal of the udder in the case of lactating female animals.

### "Edible"

The Committee agreed to delete this definition.

### "Edible department"

The Committee agreed to delete this definition.

### "Edible offal"

The delegation of the Federal Republic of Germany proposed an addition to the text to the effect that the stomach should always be without mucous membrane. The delegation of France moreover proposed to specify that the stomach should be properly cleaned. The delegations of Kenya and other countries pointed out that in their countries the cleaned mucous membrane was not removed from the stomach intended for human consumption. The Committee agreed to a small change in the text .... the lung, the cleaned stomach and such ....

### "Establishment"

The Committee decided to change the wording of this definition deleting all references to specified premises: "Establishment" means any premises in which fresh meat is produced, prepared, handled, packed or stored.

### "Fit for human consumption"

A number of delegations were in agreement with the definition as it stood. The delegation of Austria pointed out that changes might occur in the meat at a later stage, i.e. after the regular inspection in the abattoir, should also be taken care of. The Committee decided to include this point in the definition. It was further brought forward that meat which had passed the inspection should be duly marked. The Committee agreed to insert this into the definition: "Fit for human consumption" in relation to meat, means an article which has been passed and marked by an inspector and in which no subsequent changes have been found due to disease, decomposition or contamination.

"Fresh meat"

The Committee agreed to replace in the definition the words "chilled or frozen" by the more general term "subjected to refrigeration".

"Inedible"

The Committee decided to delete this definition

"Inspector"

The Committee discussed the definition in great detail. The delegations of some countries were of the opinion that meat inspection should be carried out by veterinarians only. Other delegations pointed out that in a number of countries meat inspectors without veterinary qualifications were employed and that the general trend in meat inspection led more and more towards the employment of veterinarians in a supervisory capacity, overseeing a number of properly trained inspectors. In view of the above, the Committee decided to change the definition as follows: "Inspector" means a properly trained officer appointed by the controlling authority of a country for the purpose of meat inspection and supervision of meat hygiene. The supervision of the inspection of meat, including meat hygiene, should be the responsibility of a veterinarian.

"Manager"

The Committee agreed to change the definition as follows: "Manager" in relation to an abattoir or establishment, includes any person for the time being responsible for the management of the abattoir or establishment.

"Meat"

The Committee was of the opinion that the Code should cover only those animals slaughtered in abattoirs. The definition was changed accordingly! "Meat" means the edible part of any mammal slaughtered in an abattoir.

"Part"

The Committee decided to delete this definition

"Potable water"

In the view of the delegation of Australia the definition would be best covered by a substantive provision in the text of the Code. The Committee decided however to retain the definition as drafted, taking into account the important role of water in relation to meat hygiene.

"Protective clothing"

Some delegations pointed out that the protective clothing should comply with the requirements of meat hygiene. The Committee decided to amend the Code accordingly: Protective clothing must be such that it complies with the requirements of meat hygiene and prevents the contamination of meat.

"Rendering"

The delegation of Australia proposed to delete this definition. The Committee agreed with the proposal.

"Sanitary department" (proposed definition)

The Committee discussed the proposal made by the delegation of Sweden to define sanitary department, but decided not to include this definition.

"Slaughter" (proposed definition)

The delegation of the United States proposed to include a definition on slaughter as the term was frequently used throughout the Code: "Slaughter" means death of the animal by thorough bleeding. Other delegations were of the opinion that there were more factors related to slaughter. The Committee decided not to insert a definition of slaughter in the Code.

"Sterilization"

The delegation of Denmark brought to the attention of the Committee that sterilization means to make a surface completely sterile, i.e. completely free from any living microorganisms. This is however normally not achieved by the usual cleaning and disinfection practice in abattoirs. The Committee agreed to substitute the word sterilization by disinfection throughout the Code and defined this term as follows: "Disinfection of surfaces" means the application of hygienically satisfactory chemical or physical agents and processes to clean surfaces with the intention to inactivate the microorganisms which may still be present after the cleaning procedure.

"Unfit for human consumption"

The Committee decided to delete the definition as drafted because it was considered that the definition on "Fit for human consumption" sufficed.

SECTION III - REQUIREMENTS CONCERNING SLAUGHTER ANIMALS

13. The Committee considered a proposal which had been made by the delegation of Australia to delete sub-sections 1, 3 and 4 of this section. The delegation of Australia considered that these sub-section related primarily to the control of animal disease and that they were therefore somewhat outside the scope of the Code. While some delegations agreed with the Australian view, a number of other delegations thought that these subsections could be said to be concerned with meat hygiene. A majority of the Committee was of the opinion, however, that even though the Australian view was to some extent justified, the text should remain as drafted, with the following modifications:

- to insert in the first sub-section a clause making the veterinarian in the abattoir the sole judge of whether an animal is fit for slaughter, irrespective of any certificate which may accompany the animal (s);
- to transfer the second sub-section dealing with the procedure to be followed when unreasonably dirty animals are delivered to the abattoir to Section IV.D.

SECTION IV - ESTABLISHMENT FACILITIES AND OPERATING REQUIREMENTS

14. The Committee was of the opinion that a separate paragraph in this section should be devoted to the registration of slaughterhouses and related establishments. Consequently the following changes were made:

- title: A. Establishment Registration, Construction and Layout
- insertion of new paragraph 1:



Abattoirs and establishments should be approved and registered by the controlling authority responsible for meat hygiene and inspection.

1(a) (new 2(a))

The delegation of the United Kingdom proposed to specify that the area of the location should not be liable to flooding. The Committee agreed to insert this clause in the sub-section.

1(c) (new 2(c))

The delegation of the United Kingdom proposed to extend the sub-section to cover not only the construction of the abattoir but also to state that it should be kept in good repair.

1(f)(i) (new 2(f)(i))

The delegation of Australia proposed to amend the sub-paragraph BO that the clause regarding the sloping of floors would not apply to rooms where meat is frozen or stored. The delegation of the United States stated that in view of the modern methods of cleaning floors mechanically, there was no real need to specify that floors should be cloped. The Committee agreed to include the proposed amendment.

1(h) (new 2(h))

The delegation of Sweden proposed to re-arrange this and a number of other paragraphs in the Code. The Committee requested the Secretariat to study the matter and left it to the discretion of the Secretariat to make any necessary changes.

2(a)

The Committee agreed to delete the recommendation in this sub-section that "the flow of animals should be in one direction only, i.e. from the unloading point towards the killing pens or pens for suspect animals". Some delegations considered that this recommendation ought to be modified to enable, with the permission of the veterinarian, sick animals to be removed from pens for treatment or returned to the farm. The majority of delegations were against this, on the grounds that the risks involved were too great and considered that the guiding principle ought to be that all animals arriving at an abattoir for slaughter should be slaughtered. The Committee also modified this sub-section (a) to make it clear that the reference to cross traffic of animals related to animals of different species and (b) to exempt pigs from the recommendation that "if possible, animals should not be slaughtered while the hide or skin is still dripping".

2(b) (new 3(b))

This sub-section was amended to enable animals which are sick or suspected of being sick to be isolated in separate enclosures where the climatic conditions so permitted. In addition, it was agreed that the open drains of pens used for isolating such animals should be separate from the open drains of the remaining lairages and yards, in order to guard against infection of healthy stock.

2(c) (new 3(c))

The delegation of Sweden proposed that facilities for scalding and dehairing of pigs should be situated in an area separated from other areas, if other classes of animals are slaughtered or dressed at the same time as pigs. The Committee decided to amend the paragraph accordingly.

2(d) (new 3(d))

The Committee discussed the question of whether or not the emptying and rinsing of the digestive organs should always be carried out in separate rooms. The delegation of the United States drew to the attention of the Committee the fact that equipment was widely used for this purpose in the U.S.A. without adverse effects on meat and was situated in the same room in which the animals were slaughtered and dressed. Several delegations supported this view. Others, however, maintained that these operations should always be carried out in separate rooms for reasons of hygiene, and also because of odours. It was agreed, by a majority, to include the following provision:

"Separate room for emptying and rinsing the digestive organs. However, with the consent of the controlling authority, adequate and efficient fixed equipment may be used instead of separate rooms for these operations, provided that all products destined for human consumption are protected from contamination."

The Committee agreed that as this issue was controversial the special attention of Governments should be drawn to it. It was also agreed that the attention of Governments should be drawn to the following alternative text which had been proposed by the delegation of Australia:

"Separate room or adequate and suitable equipment in the main preparation area for emptying and rinsing the digestive organs. Equipment used should be subject to the approval of the controlling authority and products destined for human consumption should be protected from contamination."

The Committee also agreed that the delegation of the U.S.A. should prepare for the next session of the Committee a paper on this subject explaining the techniques used in the U.S.A.

2(f) (new sub-section)

The Committee agreed to insert a new provision providing for a separate room for storing edible fats.

2(f) (existing provision)

The Committee agreed to amend this provision in such a way that there would be a separate room for storing hides, horns and hooves and inedible animal fats, unless the above-mentioned parts are removed daily from the abattoir.

2(g)

Amended as in revised text of Code.

2(i)

The Committee considered the following proposal of the delegation of Australia:

"Special room for the slaughter of sick and suspect animals or, alternatively, the separate killing of sick and suspect animals on the main slaughter floor at the end of a normal day's kill. Where a special room is provided, this should be located within easy reach of the pens reserved for isolated animals. Meat passed as being fit for human consumption in this room should be conveyed to the edible section of the establishment in such a manner as to prevent its contamination. Where separate slaughtering is carried out, the complete slaughter-floor should be washed down and sterilized at the completion of the suspect kill."

The basic issue under consideration was whether abattoirs should be equipped with an emergency slaughterhouse to deal with sick, suspect, or injured animals. The delegation of Australia pointed out that for a number of other delegations it would not be economically feasible to provide emergency slaughtering facilities. Emergency slaughter would take place after normal slaughtering. Other delegations considered it important to have emergency slaughtering facilities to prevent the possibility of contamination of healthy products. The delegations of the following eleven countries supported the Australian proposal: Brazil, Denmark, Ireland, Kenya, New Zealand, Norway, the Philippines, Switzerland, Thailand, United Kingdom and United States of America. The delegations of the following sixteen countries considered that emergency slaughtering facilities should be provided in a separate room from the main slaughter-room: Saudi-Arabia, Austria, Belgium, Czechoslovakia, Federal Republic of Germany, Finland, France, Hungary, Israel, Italy, Netherlands, Poland, Sweden, Tunisia, United Arab Republic and Uruguay.

3(a)

A majority of the Committee agreed to reverse 3(a) into 3(b) and to add, in connection with 3(a) that "if possible, the packing in cartons should take place outside the boning and cutting rooms". Some delegations pointed out that it was the practice, and also hygienically perfectly satisfactory, to place cuts in cartons in the boning and cutting rooms, and that this was especially true for the export trade in boneless meat.

5(d) (new 6(d))

The Committee amended this sub-section to provide that, where metal cradles were used for flaying, they should be high enough to ensure that the meat could not touch the floor.

5(f)(ii) (new 6(f)(ii))

The Committee agreed to delete the square brackets.

5(h) (new 6 (h))

The Committee discussed the subject of grease traps and decided that it was not necessary to deal specifically with this matter in the Code as it was already covered in general terms in the Code. The Committee agreed therefore to delete the second and third sentence in this sub-section on this subject.

5(i) (new 6(i))

The delegation of New Zealand proposed an amendment to this sub-section whereby the second sentence was redrafted to read: "Where establishment employees or meat inspectors are engaged in work which requires better lighting, 325 lux (30 foot candles) or even 540 lux (50 foot candles) should be provided at working level and should not alter the colours. In carcase chilling rooms, 110 lux (10 foot candles) lighting at lower shank level should be sufficient." This amendment was adopted.

5(p) (new 6(p))

The Committee agreed to an amendment as proposed by the delegation of the Netherlands stating that a sufficient number of dispensers with paper towels and receptacles for used towels should be provided.

5(q)(i) (new 6(q)(i))

There was discussion concerning the number of implement sterilizers required. The Committee decided not to lay down a precise requirement but merely required that a sufficient number should be provided.

5(r) (new 6(r))

The Committee agreed to add to the sub-section a sentence proposed by the delegation of Australia regarding special requirements for the disposal of waste from the various facilities for the personnel.

6. (new 7.)

The amenities for the use of meat inspectors were discussed in great detail. The Committee agreed that it was not always necessary that meat inspectors should have separate facilities. It was the general opinion of the Committee that the meat inspectors should have access to the various facilities and especially to a laboratory to carry out their work effectively. The Committee agreed to include a sentence to this effect in the Code and to delete the last sentence in the draft.

15. B. Equipment and Utensils

B.1

This Sub-section was amended, in line with the proposal of the delegation of the United Kingdom, to provide that stationary equipment should also be capable of being easily dismantled.

16. C. Hygienic Operating Requirements

C.1(a)

The main amendment to this sub-section was a provision stating that the use of sawdust should not be permitted.

C.1(e)

This sub-section was deleted.

C.1(g)

This sub-section was amended to preclude the use of detergents, sanitizing agents and disinfectants capable of imparting residues.

17. C.2 Pest Control

C.2(a), (b) and (c)

Editorially amended as indicated in the revised version of the Code.

C.2(c)(i)

The main amendment to this sub-section was the insertion of a provision recommending that no pesticides should be used unless they have been approved and are within the established tolerances of the Codex Alimentarius Commission. The Committee also agreed to add a provision that pesticides should only be used if other precautionary methods cannot be used effectively.

C.2(c)(ii)

This sub-section was amended as shown in the revised text of the Code.

### C.3

The majority of the Committee agreed that no animals other than animals for slaughter should be allowed to enter abattoir buildings. This sub-section was amended accordingly and the remainder of the text was deleted.

#### 18. Health of Personnel

The delegation of the Netherlands recommended that in the Code a paragraph should appear regarding the medical control of food-handlers and referred in this connection to the WHO Seminar on Food Hygiene held in Warsaw in August 1970. The Committee was informed about the conclusions of the Seminar and the recommendations of the Joint FAO/WHO Expert Committee on Meat Hygiene (1961). Several delegations pointed out that in the legislation of their countries a regular medical examination of food-handlers was prescribed. The Committee decided to insert a new sub-section (IV.C.4(a)) covering the issue,

#### C.6 Hygiene of personnel and meat handling practice

The Committee agreed to amend some of the provisions of this sub-section in accordance with comments submitted by the delegation of the United Kingdom.

#### 19. D. Operating practices and requirements

The Committee decided to change the title of sub-section 1 to reflect more accurately the subjects covered, to read: Principles to be observed during slaughtering, dressing and preparation of meat.

##### D.1

The delegation of the Federal Republic of Germany informed the Committee that according to the requirements of the EEC, evisceration should be completed within half an hour after bleeding. The Committee agreed to leave the text unchanged.

##### D.1(c)(i) (new (q)(l))

The Committee agreed that the udder should be added to the list of organs which could discharge material which could contaminate the carcass.

##### D.1(r) (new (f))

The delegation of Israel pointed out that the inflation of lungs by air was a requirement of meat inspection following Jewish ritual slaughtering of animals. The Committee agreed to include a provision for this in the Code.

#### 20. D.2 Identification of inspected meat

The Committee agreed to modify this section to permit the marking of containers as an alternative to the marking of meat. The delegations of Belgium, the Federal Republic of Germany, France and Italy reserved their position regarding the marking of containers. These delegations maintained that the meat itself should be marked.

#### 21. D.3 Operating practices following post-mortem inspection including storage

The Committee agreed to a re-arrangement of the order of items of this section in accordance with a proposal of the delegation of New Zealand.

##### D.3(a)

The delegation of Australia expressed the wish that the practice of "hot boning" of meat be recognized as a normal commercial practice. Preliminary investigations carried out in

Australia showed that the product produced by the "hot boning" method was equal in all respects to the product prepared by chilling before boning. Further investigate were being carried out and when these were completed. Australia was prepared to submit a detailed document for consideration by the Committee. The Committee agreed to consider the matter further in the light of the information to be supplied by Australia.

#### D.3(d)

Regarding the possibility of specifying time/temperature figures in the Code, the delegation of the Federal Republic of Germany expressed the wish that the Code should eventually contain specific data on this matter.

#### 22. Transportation

##### D.5(d)

The Committee agreed to extend this sub-section to cover modern methods of transporting meat on racks.

#### 23. Programme for Veterinary Supervision and Hygiene Control

The Committee agreed to alter the title of section E. so that it would also cover veterinary supervision of meat inspection and hygiene, and added a new paragraph to this section to cover this matter.

#### 24. Abattoirs and Environmental Pollution

It was suggested by the delegation of the Federal Republic of Germany that abattoirs should be located, constructed and managed in such a way as to minimize pollution of the environment as far as technologically possible and in agreement with the requirements for protecting the environment. Although the Committee recognized that this matter was outside the scope of the Code of Hygienic Practice for Fresh Meat, it fully supported this suggestion.

### MATTERS ARISING FROM THE REPORT OF THE SEVENTH SESSION OF THE COMMISSION

25. The Committee was informed of the decisions taken by the Commission at its 7th Session relating to the present Committee, Sub-Committee I on Cutting Methods and Cuts of Carcasses and the Codex Committee on Processed Heat Products.

### PROPOSAL TO ESTABLISH A CODEX COMMITTEE ON MEAT HYGIENE

26. In view of the particular importance and considerable amount of work involved in developing an international acceptable code of hygienic practice covering the entire field of meat hygiene, the suggestion was put forward that this subject warranted the establishment of a separate Codex Committee. The delegation of the Federal Republic of Germany agreed with this suggestion but thought that in view of the number of Codex Committees already hosted by the Federal Republic of Germany, it would not be possible for the Federal Republic of Germany to undertake the hosting of a further Codex Committee. The delegation of the Federal Republic of Germany suggested therefore that it would be desirable if the Government of another country were to undertake this responsibility. It was suggested that perhaps the Government of New Zealand might be prepared to undertake this responsibility. The delegation of New Zealand undertook to communicate the wish of the Committee to their authorities in New Zealand. The general view in the Committee was that there was a need for the establishment of a separate committee to deal with meat hygiene. A few delegations indicated that they were not at this time in a position to indicate their Governments views

on the proposal. It was noted that the Commission Secretariat would contact the Governments of the Federal Republic of Germany and New Zealand and would bring to the attention of the Executive Committee the views of these Governments. The Executive Committee would report to the next session of the Commission.

#### SUB-COMMITTEE I

27. The Chairman informed the Committee that the Government of the federal Republic of Germany was prepared to continue the chairmanship and hosting of sessions of Sub-Committee I to complete the current programme of work. It was the intention to hold a session in 1971 at a date still to be determined.

#### MARKING INKS FOR MEAT INSPECTION STAMPS

28. The Committee agreed that the views of Governments should be sought on the possibility of simplifying and harmonizing on an international basis the use of marking inks in the light of the information contained in document CX/M/70/4.

#### FUTURE ACTION ON THE DRAFT CODE OF HYGIENIC PRACTICE FOR FRESH MEAT

29. The Committee agreed that the Code contained in Appendix II to this Report should be sent to Governments for comments at Step 3.

LIST OF PARTICIPANTS \*  
LISTE DES PARTICIPANTS  
LISTA DE PARTICIPANTES

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Appendix II

PROPOSED DRAFT CODE OF HYGIENIC PRACTICE  
FOR FRESH MEAT

(at Step 3 of the Codex Procedure for the Elaboration of Codes of Practice)

Section I - Scope

This Code of Hygienic Practice applies to fresh meat intended for human consumption, whether by direct sale or through further processing. It contains the minimum requirements of hygiene of meat production from slaughter of animals up to and including the transport of meat and is intended to assure a healthful and wholesome meat supply.

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 the 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. "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.
8. "Edible offal" in relation to slaughtered animals includes the brain, the thymus gland, the pancreas gland, the liver, the spleen, the kidney, the heart, the lung, the cleaned stomach, the tongue and such other offals as may be passed as fit for human food.
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 marked by an inspector and in which no subsequent changes have been found due to disease, decomposition or contamination,
11. "Fresh meat" means meat which has not yet been treated in any way to ensure its preservation, except that if it has been subjected to refrigeration, it should continue to be considered as "fresh" for the purpose of this Code.
12. "Inspector" means a properly trained officer appointed by the controlling authority of a country for the purpose of meat inspection and supervision of meat hygiene., The supervision of the inspection of meat including meat hygiene should be the responsibility of a veterinarian.
13. "Manager" in relation to an abattoir or establishment includes any person for the time being responsible for the management of the abattoir or establishment.
14. "Meat" means the edible part of any mammal slaughtered in an abattoir.
15. "Potable water" means water that is pure and wholesome at the point of usage in accordance with WHO 1963 requirements contained in the International Standards for Drinking Water".
16. "Protective clothing" must be such that it complies with the requirements of hygiene and prevents the contamination of meat.
17. "Disinfection of surfaces" means the application of hygienically satisfactory chemical or physical agents and processes to clean surfaces with the intention to inactivate the microorganisms which may still be present after the cleaning procedure.

### Section III - Requirements concerning slaughter animals

1. Where a person has reason to believe that, as a result of any accident or by reason of any defect or disease, or by the administration of any drug or chemical, any animal might not be suitable for human consumption, he should not send it to any abattoir or establishment unless the animal is certified by a veterinarian to the effect that he has attended the animal and it is in his opinion suitable to be slaughtered for human consumption. However the inspecting veterinarian in charge of the abattoir should be the sole judge of whether an animal is fit for slaughter, irrespective of any certificate which may have been given.
2. Every means of conveying animals to any abattoir or establishment should be maintained in a clean and sanitary condition by thoroughly washing down or otherwise cleaning as soon as practicable after the animals have been unloaded therefrom.
3. Every means of transport should be so constructed and maintained that animals can be loaded and unloaded easily and that animals of different species are physically separated during the transport and that contamination by excreta deposited on the vehicle floor is minimized because of floor grating or similar devices. In the case of a vehicle or railway truck having more than one deck, an impervious floor below the grating of the upper deck or any similar device should be provided to protect animals conveyed on the lower deck.

## Section IV - Establishment Facilities and Operating Requirements

### A. Establishment Registration, Construction and Lay-out

1. Abattoirs and establishments should be approved and registered by the controlling authority responsible for meat hygiene and inspection.
2.
  - (a) Abattoirs and establishments should be located in areas not liable to flooding and free from objectionable odours, smoke, flying ash, dust or other contaminants.
  - (b) The size of the abattoir or the establishment should be sufficient to allow for the required working space.
  - (c) The construction should be sound and ensure adequate ventilation, good natural or artificial lighting and easy cleaning, and the abattoir or establishment should be kept in good repair.
  - (d) The lay-out and equipment of the abattoir or establishment should be such as to allow for efficient sanitary control.
  - (e) In every abattoir or establishment there should be a physical separation between the edible and inedible department.
  - (f) In the rooms in which animals are slaughtered or dressed or where meat is cut-up or boned-out, prepared, handled, packed, cooled, frozen or stored:
    - (i) Floors should be of water-proof, non-toxic, non-absorbent materials, which are easy to clean and disinfect. They should be non-slip and without crevices and, except in the case of rooms where meat is frozen or stored, should slope sufficiently for liquids to be drained off to trapped outlets protected by a grill.
    - (ii) Walls should be of water-proof, non-toxic, non-absorbent materials, which are easy to clean and disinfect, smooth, and at a height appropriate the operation conducted; they should be light coloured and washable. The angle between the walls and the floor should be coved.
    - (iii) Ceilings should be so designed and constructed as to prevent the accumulation of dirt and condensation and should be easy to clean.
  - (g) The abattoirs and establishments should be of such construction as to prevent the entrance and harboring of insects, birds or vermin.
  - (h) Effective facilities should be provided for the disposal of plant effluent and should at all times be maintained in good order and repair; catch-basins, traps, save-alls and sumps should at all times be kept separate and apart from any department in which meat is prepared, handled, packed or stored.



3. Abattoirs should include the following:
- (a) Covered accommodation large enough to house the animals or, where climatic conditions permit, suitable holding facilities. Accommodation should be so arranged as to permit proper inspection of the animals before slaughter; the lairages and yards should be suitably constructed, paved or grated, well drained and furnished with an adequate number of water troughs and suitably maintained. Sufficient water-line connections with adequate water pressure should be available to enable the lairages, yards, races and unloading ramps and livestock transport vehicles to be cleaned. Where the whole yards are not covered or where the climate is suitable to hold animals in paddocks, there should be a sufficient number of covered pens to facilitate ante-mortem inspection in bad weather and there should also be covered restraining devices such as chutes, squeeze gates, boxes or any other effective device for restraining animals requiring close examination. Any lairages and yards should be of such a lay-out that cross-traffic of animals of different species is avoided. Where the climate is suitable, washing facilities for animals prior to a slaughter should be available; if possible, animals, with the exception of pigs should not be slaughtered while the hide or skin is still dripping.
  - (b) Separate covered pens or, so far as climatic conditions permit, separate enclosures for the isolation of animals which are sick or suspected of being sick. The open drains of these pens should not connect with the drains of the remaining lairages and yards.
  - (c) Slaughter and dressing rooms which enable the work to be performed in a satisfactory manner. A special area may be reserved for pigs where appropriate. If other classes of animals are slaughtered or dressed at the same time as pigs, facilities for scalding and dehairing of pigs should be situated in an area separated from other areas.
  - (d) Separate room for emptying and rinsing the digestive organs. However, with the consent of the controlling authority, adequate and efficient fixed equipment may be used instead of separate rooms for these operations, provided that all products destined for human consumption are protected from contamination.
  - (e) Separate rooms for tripe and gut dressing. However, with the consent of the controlling authority, adequate and efficient fixed equipment may be used instead of separate rooms for these operations provided that all products destined for human consumption are protected from contamination,
  - (f) Separate room for storing edible fats.
  - (g) Separate room for storing hides, horns and hooves and inedible animal fats, unless the above-mentioned parts are removed daily from the abattoir.

- (h) If salting, curing, grading, calibrating and packaging of casings is carried out in the abattoir, a separate room for this purpose should be provided.
  - (i) Refrigerated room suitable for the cooling of meat;
  - (j) Special room capable of being locked for the slaughter of sick and suspect animals. This room should be located away from edible departments and in easy reach of the pens reserved for isolated animals.
  - (k) Separate facilities in the form of a separate room or portion of a room capable of being locked for storing suspect meat and designed so as to prevent the risk of contaminating other meat and the risk of substitution.
  - (l) Room suitable for the holding of condemned meat, unless other adequate arrangements for disposal exist.
  - (m) Adequate and well equipped areas reserved for the use of the meat inspection services.
4. Establishments in which meat is boned-out and cut-up should include the following:
- (a) Refrigerated room for the holding of meat.
  - (b) Rooms for boning and cutting physically separated from other rooms. If possible, the packaging in cartons of boned-out and cut-up meat should take place in a separate room. These rooms should be temperature controlled.
  - (c) Adequate and well equipped areas reserved for the use of the meat inspection services.
5. Refrigeration facilities. The construction and lay-out of any chilling room or freezer should satisfy the requirements of this Code.
6. Sanitary facilities and controls
- (a) Those operations which carry a risk of contamination of meat suitable for human consumption should be sufficiently separated from other operations to avoid the risk of such contaminations.
  - (b) Rooms, equipment and utensils provided for slaughtering and dressing should be used for this purpose only and not for boning-out, cutting-up, holding or other handling of meat.
  - (c) Abattoirs and establishments should be layed-out and equipped so as to ensure that meat at no time comes into contact with floors, walls or other fixed structures, except those which are specifically designed for contact with meat.
  - (d) Slaughtering rooms should be fitted, as far as possible, with equipment enabling animals to be bled, flayed and eviscerated in a hanging position; where meal cradles are used for flaying they should be high enough to ensure that the meat cannot touch the floor.

- (e) Abattoirs and establishments should be equipped with an overhead rail for transporting meat so installed as to prevent contamination of the meat.
- (f) An ample supply of potable water under adequate pressure should be provided with adequate facilities for its storage and distribution and with adequate protection against contamination and pollution:
  - (i) All water used in abattoirs and establishments in which meat is prepared, handled, packed or stored should be potable.
  - (ii) Where non-potable water is used for such purposes as producing steam, cooling refrigeration and fire control, the inspector should be informed. Such water should be carried in completely separate lines, identified preferably by colour, and with no cross connection or backsiphonage with the lines carrying potable water.
- (g) An adequate supply of hot water at no less than 62°C should be available at all times during the working hours.
- (h) Abattoirs and establishments should use an efficient disposal system for waste water. Drainage lines should be properly vented to the outside air and equipped with effective rodent screens. All floor drains should be kept in good condition and repair with strainers put in place.
- (i) Adequate lighting of 220 lux (20 foot candles) should be provided throughout the abattoir establishment. Where establishment employees and meat inspectors are engaged in work which requires better lighting, 325 lux (30 foot candles) or even 540 lux (50 foot candles) should be provided at working level and should not alter colours. In carcass chilling rooms 110 lux (10 foot candles) lighting at lower shank level should be sufficient. Light bulbs and fixtures suspended over meat in any step of preparation should be of the safety type or otherwise protected to prevent contamination of meat in the case of breakage.
- (j) Adequate ventilation should be provided to prevent excessive heat, steam and condensation and ensure that the air of premises is not contaminated with odours, dust, vapour or smoke. Ventilation openings should be screened. Windows should be fitted with whole panes and those which open should be screened. The screens should be made so as to be easily movable for cleaning. Internal window sills, if present, should be sloped to prevent use as shelves.
- (k) All doors should be sufficiently wide and those opening from edible department, unless provided with an effective and operating air screen, should be solid, as far as practicable, self-closing or snug-fitting double action doors.
- (l) Effective measures should be taken to control insects, vermin and birds.

- (m) All stairs located in any room used in any edible department should be so constructed that they can be easily cleaned and that no contamination can be caused by material passing through the risers or treads and should have side curbs that are at least 10 cm in height measured at the leading edge of the treads.
- (n) The internal surface of the base and sides of lift cages should be finished to a smooth impervious surface. Lift shafts should be smoothly finished or tiled. If painted or distempered, a light colour should be used. The floor of lift shafts should be drained so as to permit effective cleaning.
- (o) Platforms, ladders, chutes and similar facilities in any room used for the preparation of meat should be constructed of material which is resistant to fracture, abrasion, rust, or corrosion and which can be effectively cleaned.
- (p) All rooms used for slaughtering, dressing, boning, preparation, packing or other handling of meat should be equipped with adequate facilities for washing hands, conveniently located for the use of personnel during operations. Taps of hand-washing facilities should be of a type not requiring operation by hand. In addition, where necessary, an adequate supply of odourless soap (liquid soap of a disinfectant type in suitable dispensers), or other cleansing agents. A sufficient number of dispensers with paper towels and receptacles for used towels should be provided adjacent to each washing facility.
- (q)
  - (i) In every room in an abattoir and establishment in which carcasses are dressed or meat is prepared or packaged, conveniently located implement sterilizers in sufficient number should be provided.
  - (ii) Every sterilizer should be constructed of corrosion-resistant materials, and should be of such nature and size to be sufficient to enable all knives, steels, cleavers, saws and other implements used in the dressing, preparing of packaging of carcasses and meat to be efficiently disinfected.
  - (iii) No sterilizer should be used for any purpose other than the disinfection of knives, steels, cleavers, saws and other implements used in the dressing of carcasses and preparation or packaging of meat,
  - (iv) Any sterilizer in an abattoir and establishment where animals are slaughtered and dressed or in any part of the establishment used for the preparation of carcasses or meat should be fitted with a suitable means of supplying water in sufficient quantity at a temperature of not less than 82° C at all times while carcasses are being dressed or meat is being prepared in that part of the abattoir and establishment. This sterilizer should be emptied and cleaned at the end of each working day and at such other times as considered necessary by the inspector.

- (v) Facilities should be provided in each abattoir and establishment for the cleaning and disinfection of trucks, trolleys, trays, gambrels, skids, hooks, pouches and other similar equipment and working implements at the conclusion of each working day.
  - (r) Adequate provisions should be made in every abattoir and establishment for changing-room accommodation, lunch-room, toilets with flushing water closets and shower and washing facilities for all persons employed. All such accommodation, toilets and shower and hand washing facilities should at all times be kept in good repair, clean and should have adequate lighting and ventilation. No changing-room, lunch room, toilet or room containing any shower or washing facilities should open directly to any work areas. Hand-washing facilities should be provided adjacent to every toilet. Waste from these facilities shall not join the plant effluent system prior to the final save-all.
7. The amenities for the use of meat inspection service should comprise offices, changing rooms, drying-room, lunch-room, toilets, showers and hand-washing facilities provided with soap dispensers, and suitable hygienic means of drying the hands should be provided. The accommodation reserved for the meat inspection service should be provided with adequate lighting, ventilation and heating. Access to, and use of, laboratory facilities should be provided for the purpose of meat inspection and meat hygiene.
  8. Abattoirs and establishments should be equipped so as to permit proper performance of meat inspection and control.

**B. Equipment and Utensils**

1. All equipment, implements and utensils used in abattoirs or establishments should be so constructed that they may be easily dismantled, cleaned and made from a material which is non-toxic, smooth, free from pits, crevices or scale, unaffected by meat, non-absorbent and capable of withstanding repeated exposure to normal cleaning and disinfection. Stationary equipment should be installed in such a manner as will permit easy access and thorough cleaning and disinfection.
2. The use of wood in abattoirs and establishments should be restricted as far as possible. Where it is irreplaceable it should be planed and renewed at frequent intervals. Wooden surfaces that are soiled and washed daily should be allowed to dry after cleaning and disinfecting.
3. Equipment and utensils used for inedible or contaminated materials should be so identified and should not be used for edible products.
4. Equipment and utensils for slaughtering and dressing should be used for this purpose only and not for cutting-up or boning-out or further preparation of the meat.
5. No containers should be assembled and no containers, equipment, or utensils should be stored or deposited in any part of an abattoir or

establishment in which animals are slaughtered or dressed or where meat is cut-up or boned-out, prepared, handled, packed or stored unless the container, equipment, or utensils are required for use in that part.

C. Hygienic Operating Requirements

1. (a) Rooms should be kept in good repair and clean at all times and, as far as practicable, free from steam, vapour and surplus water. Every part of an abattoir or establishment in which animals are slaughtered or dressed or where meat is handled, prepared, packaged or stored, should be thoroughly cleaned immediately after cessation of work for the day and at such other times as may be required. They should be disinfected whenever necessary. The use of sawdust on the floor should not be permitted.
- (b) All tables, utensils, implements, equipment including knives, steels, cleavers, knife pouches, saws and containers should be forthwith thoroughly cleaned and disinfected whenever they become soiled, contaminated or come into contact with diseased or infected material. At the conclusion of each working day and whenever necessary, particularly during the cutting up of meat, when knives and steels or other implements require frequent disinfection, special equipment should be provided for this purpose in each room where the preparation of meat takes place.
- (c) The inspector should take all necessary steps to ensure that washing down, cleaning and disinfection are carried out in compliance with this Code.
- (d) Cleansing and disinfection of rooms or equipment, implements and utensils should be so effected that they do not contaminate by splashing any carcase or meat.
- (e) Where any skip or trolley or any container used in an edible department enters or is used in an edible area, it should be cleaned and disinfected immediately before reentering any edible department.
- (f) No detergents, sanitizing agents and disinfectants capable of imparting a residue should be allowed to come into contact with meat. Any residues of these cleaning and sanitizing agents used for the washing of floors, walls or edible product equipment should be removed by thorough rinsing with potable water before the equipment is again used for handling meat.
- (g) Any cleaning preparation or material, or any paint or preparation used in substitution for paint which is likely to be harmful to any carcase or meat which is or may be prepared, handled, packaged or stored in an abattoir or establishment, should not be used.
- (h) No deleterious substance of any nature by which any carcase or meat may be contaminated should be handled or stored in any part of any abattoir or establishment in which carcasses are slaughtered or dressed, or in which meat is prepared, handled, packaged or stored. However, materials employed in the construction or

maintenance of an abattoir or establishment may be used at any time when an inspector is satisfied that there would be no danger of contamination of carcasses or meat.

2. Pest Control

- (a) Every abattoir or establishment should be vermin-proofed, and it should be the responsibility of the management to ensure that the abattoir or establishment is protected against rodents, birds, flies, cockroaches and other vermin and that no waste material or other substances which may constitute a breeding ground for such vermin are permitted to remain.
  - (b) All openings, cracks and crevices in the fabric of the building and its fitting that may admit rodents, birds, flies and other pests should be effectively sealed. Ply screens should be installed wherever necessary. Abattoirs or establishments should be regularly examined for evidence of infestation.
  - (c) Should pests gain entrance to abattoirs or establishments in spite of vigorous preventive measures, permitted eradication methods should be instituted to get rid of them. The eradication of pests should always be carried out under skilled supervision and with the full knowledge of the inspector.
    - (i) No pesticides are to be employed unless they are approved and their residues are within the established tolerances of the Codex Alimentarius Commission. Even then the greatest care should be exercised to prevent any contamination of meat, and pesticides should only be employed if other precautionary matters cannot be used effectively.
    - (ii) Before the application is commenced all meat should be removed from the room and all equipment and utensils covered. After spraying the equipment and utensils should be thoroughly washed prior to being used again.
3. No animals other than animals for slaughter should be allowed to enter abattoir buildings.
4. (a) It is recommended that national legislations should provide for a medical examination of meat handlers, meat inspectors and other persons who have access to and come into contact with meat in abattoirs and establishments. Medical examinations should be carried out before these persons are employed and at regular intervals thereafter.
- (b) No person who is suffering from, or who is a carrier of any communicable disease, notably diarrhoea, or is suffering from skin disease or any condition causing a discharge of pus or serum from any part of the head, neck, arms or hands, should engage in any abattoir or establishment in the preparation, handling or transportation of meat or should work in any department where meat is prepared, handled or transported. Any such person should immediately report to the manager.

- (c) The manager should take care to ensure that no person, while known to be affected with a disease capable of being transmitted through food, or known to be a carrier of such disease microorganisms, or while afflicted with infected wounds, sores, or any illness, is permitted to work in any area of an abattoir or establishment in a capacity in which there is a likelihood of such a person contaminating meat with pathogenic organisms.
  - (d) 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.
  - (e) No person who is suffering from any cut or injury should engage in any abattoir or establishment in the preparation, handling, packaging or transportation of any meat unless and until the cut or injury has been so treated or dressed that the discharge of blood on to the meat has been prevented.
5. All rodenticides, pesticides or other toxic substances should be stored in separate rooms or cabinets under lock and key and dispensed and handled only by authorised and properly trained personnel to avoid any possibility of contaminating any meat directly or indirectly, as the case may be.
6. Hygiene of personnel and meat handling practice
- (a) Every person engaged in an abattoir or establishment should, before commencing work, and on every occasion after visiting a toilet and before resuming work and whenever necessary, wash his hands thoroughly with soap, or other cleansing agent, and potable water. Notices requiring hand-washing should be displayed.
  - (b) Every person engaged in an abattoir or establishment should maintain a high degree of personal cleanliness while on duty, and should at all times while so engaged wear suitable protective clothing including a head covering and boots all of which articles should be washable unless capable of being disposed of and which should be maintained in a clean condition consistent with the nature of the work in which the person is engaged.
  - (c) Every person who visits an abattoir or establishment should wear clean protective clothing and an appropriate head-covering and boots all of which articles should be washable unless capable of being disposed of.
  - (d) No clothing or personal effects other than protective clothing should be deposited in any part of an abattoir or establishment used for slaughter of animals, dressing of carcasses, preparation, handling, packaging or transportation of meat.
  - (e) Protective clothing and knife pouches and belts of suitable type and implements contained therein, may be left in a place provided for the purpose in such a manner that they will not contaminate any carcass or meat.



- (f) Eating, use of tobacco or chewing gum, and spitting should be prohibited, in any part of an abattoir or establishment used for slaughtering or dressing of carcasses or for the preparation, handling, packaging, storing or preservation of meat. Appropriate notices drawing attention to this requirement should be displayed throughout the abattoir or establishment.
- (g) Gloves if used in the handling of meat should be maintained in a Bound, clean and sanitary condition. The wearing of gloves does not exempt the operator from having clean hands. Gloves should be made of an impermeable material except where their usage would be inappropriate or incompatible with the work involved.
- (h) No person working in any abattoir or establishment should wear any exposed bandage unless the bandage is completely protected by a waterproof covering and is of such a nature that it cannot become accidentally detached.
- (i) Every employee should be taught the principles of hygiene and the relevant parts of this Code so as to be able to take the necessary precautions to prevent contamination of meat.

D. Operating Practices and Requirements

1. Principles to be observed during slaughtering, dressing and preparation of meat

- (a) Every animal intended for slaughter for human consumption should undergo an ante- and post-mortem inspection.
- (b) No animal should be slaughtered or dressed in any abattoir except when an inspector is present.
- (c) Any animal in an unreasonably dirty condition should be cleaned before entering the killing floor to the satisfaction of the inspector before slaughter.
- (d) All animals brought into rooms for slaughtering should be slaughtered without delay.
- (e) The bleeding should be as complete as possible. If the blood is intended to be used in food preparations, it should be collected hygienically and should in no case be stirred by hand.
- (f) Stunning, sticking and bleeding of any animals in an abattoir should not be allowed to proceed at a rate faster than that at which the carcasses can be promptly accepted for dressing.
- (g) The sticking, bleeding and flaying of any animal in an abattoir should be so performed that no part of the carcass, including the head, comes in contact with the floor and in such a manner as will prevent contamination of the carcass and head.
- (h) Where pithing is permitted, the pithing instrument should be disinfected before re-use.
- (i) The dressing of carcasses should be carried out with care so as to ensure the production of a clean carcass, head and edible offals.

To achieve the above aims, the employees carrying out this procedure should be fully conscious of the necessity to observe the basic rules of personal hygiene. Handwashing facilities should be provided within easy reach for regular use by all operators removing the hide, skin or pelt and carrying out evisceration.

- (j) Carcasses should be separated from each other to avoid contact and contamination once the removal of the hide, skin or pelt has commenced. This separation of carcasses should be maintained until they have been examined and passed by the inspector. Carcasses should not come in contact with any surface or equipment unless that surface or equipment is continuously disinfected,
- (k) The heads of animals which have been removed from a carcase should, until they have been examined and passed by the inspector, be held in such a manner that contamination is prevented.
- (l) Before the removal from any head of any meat or brain intended for human consumption, the head should, except in the case of pigs, be skinned, then thoroughly washed and rendered clean with running potable water to the satisfaction of the inspector.
- (m) Where the tongue is dropped it should be done in such a way that the tonsils are not cut.
- (n) The following points should be noted in skinning operations:
  - (i) All species, except pigs, should be skinned and this should be done before the carcase is eviscerated in such a manner as to avoid contamination of the carcasses. Pumping of air between the skin and the carcase to facilitate skinning should be forbidden. Pigs should be scoured of all bristles, scurf and dirt and may be skinned or partly skinned.
  - (ii) No water should be allowed to flow on to a carcase during or after removal of the hide or skin and before it has been eviscerated in such a manner that the water may enter the abdominal or thoracic cavity.
  - (iii) Lactating or obviously diseased udders should be removed from all classes of animals. Removal of such udders should take place at the earliest appropriate time during dressing. No secretion should be allowed to contaminate the carcase and therefore udders should be removed in such a manner that teat and udder substance remains intact and without any milk duct or sinus being opened.
- (p) Evisceration should be effected without delay.
- (q) During evisceration and dressing of the carcase the following should be noted:
  - (i) Contamination of the carcase and edible viscera (including caulfat) by any material discharged from the oesophagus, paunch, intestines or rectum, or from the gall bladder, urinary

bladder, uterus or udder should be effectively prevented by all means possible.

- (ii) Any offals intended for human consumption should be removed from the carcass in a manner that will prevent contamination of the organ removed.
- (iii) Intestines should not be severed from the stomach during evisceration into any intestine, except as necessarily required by a dressing procedure. In such a case, the open ends of the intestines should be tied before incision. In the case of sheep and lambs, the removal of stomach and intestines should be carried out without separation.
- (iv) Gall bladder, urinary bladder and uterus should not be opened during the dressing of the carcass.
- (v) Visible spermatic cords and pizzles should be removed from the carcass.
- (r) No carcass, meat or edible offal should be washed in any abattoir other than with running potable water.
- (s) No paper, cloth, wad, sponge or brush should be used in the washing of any carcass. However, this will not apply with respect to the use of brushes in the dressing of singed pig carcasses.
- (t) No person should, whether by mechanical or any other means, inflate with air any carcass, meat or edible offal unless ritual procedures require the inflation of lungs.
- (u) No hides, skin or pelts should be washed or defleshed or left in any part of the abattoir or establishment used for the slaughtering or dressing of animals or the preparation or holding of any meat intended for human consumption.
- (v) All stomachs and intestines and all inedible material derived from the slaughtering or dressing of animals should be removed as soon as possible but in accordance with the inspection procedure from the dressing floor in such a manner as to avoid contaminating the floor and walls or any carcass, meat or edible offal.
- (w) All stomachs, intestines and all inedible material should subsequently be treated in parts of the abattoir or establishment destined for this purpose in accordance with recognized practices which should pay attention to cleanliness and hygiene.
- (x) Where the thoracic region has been soiled during the initial stages of evisceration by paunch or intestinal contents so that the brisket cutter's saw or knife would become contaminated when the ternum is split, the implement should not be used until this contamination has been removed.
- (y) Faecal matter contaminating carcasses during dressing should be carefully trimmed off.
- (z) Where the 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,

- (i) the cleanliness of the carcase or meat; or
- (ii) the hygiene of production; or
- (iii) the efficiency of meat inspection.

he may require the manager to take action to correct the deficiency or to reduce the rate of production or to suspend operations for the time being in any specified section of the abattoir or establishment. Immediately after slaughter, head and viscera should be subjected to a post-mortem examination by the inspector.

2. Identification of inspected meat

- (a) Carcasses, part of carcasses, heads and edible offals which have been passed by the inspector as fit for human consumption should be identified by means of a brand applied either to the meat or to the container containing the meat.
- (b) 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.
- (c) Only firebrands or suitable branding ink should be applied to the meat.

3. Operating practices following post-mortem inspection including storage

- (a) Carcasses, heads and edible offals passed as fit for human consumption should be handled, stored or transported in a manner that will protect the carcasses, heads and offals from contamination.
- (b) Carcasses, parts of carcasses, heads and edible offals passed as fit for human consumption should be removed without undue delay from the dressing area. They should, be placed under refrigeration, save where other commercial practices are carried out under supervision of the inspector.
  - (i) Meat other than that which is frozen should be appropriately hung but no meat even if frozen and wrapped should be stacked directly on the floor but on pallets or dunnage. Any meat stored should be so placed as to permit adequate circulation of air around the meat.
  - (ii) Open packed meat and offals should be put into trays but care should be taken that no contact exists between the base of one storage unit and the meat stored beneath.
  - (iii) Overcrowding of chilling rooms should be avoided.
- (c) Entry to chilling rooms and freezers should be restricted to the personnel necessary to carry out operations efficiently.
  - (i) Doors should be closed immediately after use and should not be left open for extended periods.

- (ii) Temperature and degree of relative humidity should be maintained at a level suitable for the preservation of meat.
  - (iii) Condensation must be prevented as far as possible by proper insulation of walls or ceilings or by the application of heat near the ceiling or any other suitable method. If overhead refrigerating facilities are installed, insulated drip pans properly connected to the drainage should be placed beneath them. Floor-type refrigerating units should be placed within curbed and separately drained areas unless located adjacent to floor drains.
- (d) Every chilling room and freezer should be provided with an easily visible means of reading the internal air temperature.
- (i) Where refrigeration equipment is not manned it is desirable that automatic temperature recorders be installed.
  - (ii) A log book should be kept to record at regular intervals, at least every eight hours, temperature readings where no automatic device is installed.
- (e) Records should be maintained over all meat entering or leaving chilling rooms.

4. Packaging and packing material

If packaging material is used the following requirements should be taken in consideration:

- (a) Packaging materials should be clean and should be stored in a clean and sanitary manner to prevent contamination of the final product.
- (b) The use of equipment for wrapping or covering warm or cold meat transported within an establishment or from one establishment to another should be optional, but the material used for this purpose should be clean and should be of a type that does not leave threads on the meat.
- (c) Beef and veal, chilled and frozen, other than piece or boneless meat packed in cartons or cases should be wrapped in material which will not contaminate the meat.
- (d) Meat in the form of carcasses or sides of chilled and frozen pig meat, mutton and lamb, should be wrapped in material which will not contaminate the meat.
- (e) Meat cuts and boneless meats should be packed in cartons or cases with a suitable inner liner. Where cuts are individually wrapped before packing, an internal liner is not necessary.

5. Transportation

- (a) Meat should not be carried in any means of transport which is used for conveying live animals or any other goods likely to contaminate or otherwise adversely affect meat or edible offals.

- (b) Meat or edible offals should not be carried in the same means of transport as other goods in a way which may adversely affect the meat or edible offals.
- (c) Meat should not be put in any means of transport which has not been cleaned and, disinfected (if necessary) before being loaded.
- (d) Carcases, sides and quarters, other than those which are adequately wrapped and frozen, should be hung during transport or placed in a suitable manner on racks or similar equipment.
- (e) Means of transport should comply with the following conditions:
  - (i) Design and equipment should "be such that a required temperature can be maintained throughout the whole period of transport.
  - (ii) All parts which may come in contact with meat should be made of corrosion resistant material, present a smooth surface with smooth joints and be easy to clean and disinfect.
  - (iii) Floors should be effectively sealed so as to prevent the entry of contaminants or any leakage during transport.
  - (iv) Where vehicles and railway trucks do not possess an overhead rail, duck-boards and racks made from suitable metal should be available and kept clean and in a satisfactory state of repair; where any mechanical loading device is used it should be so designed that any part of it is easily accessible for cleaning and disinfection that it reduces to a minimum, contact between personnel and meat to be loaded and that any contact between meat and floor is avoided.
  - (v) Vehicles should be so constructed as to protect against the entry of pests.
  - (vi) Be equipped with hangers or racks made of corrosion-resistant material, for the transportation of meat other than frozen and wrapped, in such a manner that the transported meat does not come in contact with the floor.
  - (vii) Special compartments or suitable containers should be available for the transportation of unwrapped edible offals.
- (f) Every effort should be made to prevent thawing of frozen meat at any time during storage and transport but where accidental thawing takes place the meat should be examined and evaluated by the inspector before any further step is taken.

6. Condemned meat

- (a) Where any carcase, meat, organ, viscera or fat is condemned by the inspector, or where in any abattoir or establishment any carcase, meat, organ, viscera or fat is in any way unsuitable for human consumption, it should forthwith be placed in a chute designated for this purpose, or in a truck, trolley, skip, or other

clearly identified container, room or area provided for this purpose and held there securely to the satisfaction of the inspector until the said carcass, meat, organ, viscera or fat is conveyed to the place at which it is dealt with.

- (b) No person should remove or cause to be removed from any abattoir or establishment, any carcass, meat, organ, viscera or fat that has been condemned or retained by the inspector, except under his direction and supervision.
- (c) The inspector may give such directions as he considers necessary to ensure the retention within the premises of any carcass, meat, organ, viscera or fat that has been condemned or retained.
- (d) Where in any abattoir or establishment any carcass, meat, organ, viscera or fat is found to be unsuitable for human consumption, it should be the duty of the manager to cause the carcass, meat, organ, viscera or fat to be removed to a by-products plant in accordance with the rules of the controlling authority.

E. Programme for Veterinarian Supervision and Hygiene Control

1. The entire meat hygiene should be supervised by an official veterinarian. In particular, care should be taken that for every abattoir or establishment at least one official veterinarian is appointed for the supervision of meat hygiene and meat inspection.
2. It is desirable that each abattoir or establishment in its own interest designates a single individual, whose duties are preferably divorced from production, to be held responsible for the cleanliness of the abattoir or establishment. His staff should be a permanent part of the organization or employed by the organization and should be well trained in the use of special cleaning tools, methods of dismantling equipment for cleaning and in the significance of public health. Critical areas, equipment and materials should be designated for specific attention to be cleaned and if necessary sterilized at least once daily as part of a permanent sanitation schedule.