

## II

(Acts whose publication is not obligatory)

## COUNCIL

## COUNCIL DIRECTIVE

of 27 November 1990

laying down the veterinary rules for the disposal and processing of animal waste, for its placing on the market and for the prevention of pathogens in feedstuffs of animal or fish origin and amending Directive 90/425/EEC

(90/667/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 43 thereof,

Having regard to the proposal from the Commission <sup>(1)</sup>,

Having regard to the opinion of the European Parliament <sup>(2)</sup>,

Having regard to the opinion of the Economic and Social Committee <sup>(3)</sup>,

Whereas the Community is to adopt measures designed to establish the internal market progressively over a period expiring on 31 December 1992;

Whereas livestock production occupies a very important position in agriculture in the Community; whereas, in addition, animal waste, when not disposed of correctly, may spread pathogens in the environment leading to decreased productivity and margins in this sector; whereas harmonized rules should be laid down for processing animal waste and placing on the market processed products resulting therefrom;

Whereas a distinction should be drawn between the measures to be implemented on the basis of the nature of the raw material used;

Whereas, in order to avoid any risk of dispersion of pathogens, animal waste should be processed in an approved and supervised processing plant or disposed of in another

suitable manner; whereas, in addition, animal waste associated with a high risk should be collected and transported directly to a processing plant designated by the Member State concerned; whereas, in certain circumstances, especially when this is justified by distance and time of transport, the designated processing plant could be located in another Member States;

Whereas the possibility of using certain materials should be limited;

Whereas, in order to take into account certain practices, it should be possible to derogate from the processing laid down for controlled uses;

Whereas processing plants should be subject to self-supervision of their production, and in particular the observance of microbiological standards applicable to the final product;

Whereas provision should be made for a Community inspection procedure;

Whereas the products concerned should be subject to the rules for veterinary checks and any protective measures laid down by Council Directive 90/425/EEC of 26 June 1990 concerning veterinary and zootechnical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market <sup>(4)</sup>;

Whereas provision should be made for minimum rules of a transitional nature for imported products;

Whereas a cooperation procedure should be set up between the Commission and the Member States for the purposes of adopting application measures,

<sup>(1)</sup> OJ No C 327, 30. 12. 1989, p. 76.

<sup>(2)</sup> OJ No C 260, 15. 10. 1990, p. 161.

<sup>(3)</sup> OJ No C 124, 21. 5. 1990, p. 4.

<sup>(4)</sup> OJ No L 224, 18. 8. 1990, p. 29.

HAS ADOPTED THIS DIRECTIVE:

## CHAPTER I

### GENERAL PROVISIONS

#### Article 1

1. This Directive lays down:
  - (a) the animal and public health requirements for the:
    - (i) disposal and/or processing of animal waste in order to destroy pathogens which might be present in such materials,
    - (ii) production of feedingstuffs of animal origin in such manner as to prevent the presence of any pathogens therein;
  - (b) the rules for the placing on the market of animal waste intended for purposes other than human consumption.
2. This Directive shall not affect:
  - (a) national veterinary legislation applicable to the eradication and control of certain diseases and to the use of catering waste;
  - (b) national animal health rules governing the production of compound feedingstuffs which contain animal and vegetable products as ingredients and of feedingstuffs which contain material of vegetable origin only.

#### Article 2

For the purposes of this Directive the following definitions shall apply:

1. animal waste — carcasses or parts of animals or fish, or products of animal origin not intended for direct human consumption, with the exception of animal excreta and catering waste;
2. high-risk material — animal waste referred to in Article 3 which is suspected of presenting serious health risks to animals or man;
3. low-risk material — animal waste other than that covered by Article 3, which does not present serious risks of spreading communicable diseases to animals or man;
4. low-risk processing plant — a plant in which low risk material is processed into ingredients for inclusion in animal feedingstuffs or fishmeal in accordance with Article 5;
5. high-risk processing plant — a plant in which animal waste undergoes treatment or processing in order to destroy pathogens, in accordance with Article 3;

6. petfood — food for dogs, cats and other pet animals prepared entirely or partly from low-risk material;
7. technical or pharmaceutical products — products intended for purposes other than human or animal consumption;
8. establishment — a low-risk processing plant, a high-risk processing plant, a plant producing petfood or fishmeal, or a plant which prepares technical or pharmaceutical products and in which animal waste is used in the preparation of such products;
9. competent authority — any authority designated by the competent central authority to monitor implementation of this Directive.

## CHAPTER II

### RULES CONCERNING THE PROCESSING OF ANIMAL WASTE AND THE PLACING ON THE MARKET OF THE FINAL PRODUCT

#### A. High-risk material

#### Article 3

1. The following high-risk material must be processed in a high-risk processing plant approved by the Member State in accordance with Article 4 (1), or disposed of by burning or burial in accordance with paragraph 2:
  - (a) all bovine animals, pigs, goats, sheep, solipeds, poultry and all other animals kept for agricultural production, which have died on the farm but were not slaughtered for human consumption, including stillborn and unborn animals;
  - (b) dead animals not referred to in point (a) but which are designated by the competent authority of the Member State;
  - (c) animals which are killed in the context of disease control measures either on the farm or in any other place designated by the competent authority;
  - (d) animal waste including blood originating from animals which show, during the veterinary inspection carried out at the time of slaughtering, clinical signs of diseases communicable to man or other animals;
  - (e) all those parts of an animal slaughtered in the normal way which are not presented for post mortem inspection, with the exception of hides, skins, hooves, feathers, wool, horns, blood and similar products;
  - (f) all meat, poultrymeat, fish, game and foodstuffs of animal origin which are spoiled and thus present a risk to human and animal health;

- (g) animals, fresh meat, poultrymeat, fish, game and meat and milk products, imported from third countries, which in the course of the inspections provided for in Community legislation fail to comply with the veterinary requirements for their importation into the Community, unless they are re-exported or their import is accepted under restrictions laid down in Community provisions;
- (h) without prejudice to instances of emergency slaughtering for reasons of welfare, farm animals which have died in transit;
- (i) animal waste containing residues of substances which may pose a danger to human or animal health; milk, meat or products of animal origin rendered unfit for human consumption by the presence of such residues;
- (j) fish which show clinical signs of diseases communicable to man or to fish.

2. The competent authorities may where necessary decide that high-risk material must be disposed of by burning or by burial where:

- transport to the nearest high-risk material processing plant of animals infected or suspected of being infected with an epizootic disease is rejected because of the danger of propagation of health risks,
- the animals are infected with or suspected of being infected with a serious disease or contain residues which could constitute a risk to human or animal health and which could survive inadequate heat treatment,
- a wide-spread epizootic disease leads to a lack of capacity at the high-risk material processing plant,
- the animal waste concerned originates from places with difficult access,
- the quantity and the distance to be covered does not justify collecting the waste.

Burial must be deep enough to prevent carnivorous animals from digging up the cadavers or waste and shall be in suitable ground so as to prevent contamination of water tables or any environmental nuisance. Before burial, the cadavers or waste shall be sprinkled as necessary with a suitable disinfectant authorized by the competent authority.

#### Article 4

1. Member States shall approve for all or part of their territory one or more high-risk processing plants for the collection and processing of high-risk material. A Member State may decide to designate a high-risk processing plant in another Member State after agreement with that other Member State.

2. In order to be approved by the competent authority, high-risk processing plants must:

- (a) meet the requirement of Annex II, Chapter I;
- (b) handle, process and store animal waste in accordance with Annex II, Chapter II;
- (c) be checked by the competent authorities in accordance with Article 10;
- (d) ensure that the products of processing satisfy the requirements of Annex II, Chapter III.

3. Approval shall be suspended as soon as the conditions under which it was granted are no longer fulfilled.

#### B. Low-risk material

##### Article 5

1. Low-risk material must be processed in a high-risk or low-risk processing plant approved in accordance with Article 4 (2), in a petfood plant, or in a plant preparing pharmaceutical or technical products, or be disposed of by burning or burial in accordance with Article 3 (2).

In addition to the animal waste referred to in Article 2 (3), the following shall be deemed to be low-risk material:

- products excluded under Article 3 (1) (e), in so far as they are used in the manufacture of feedingstuffs,
- fish caught in the open sea for the purposes of fishmeal production,
- fresh fish offal from plants manufacturing fish products for human consumption.

The mixture of low-risk material processed together with high-risk material shall be deemed to be high-risk material.

Where low-risk material is processed in a petfood plant or a plant preparing pharmaceutical or technical products, the competent authority may require that it is dispatched, stored and processed in a specific location and under specific conditions.

Fishmeal from industries which receive and manufacture exclusively low-risk materials intended for the manufacture of fishmeal must meet the requirements laid down in Annex II, Chapter III.

2. In order to be approved by the competent authority, low-risk processing plants must:

- (a) meet the requirements of Annex II, Chapter I;
- (b) handle, process and store animal waste in accordance with Annex II, Chapter II;
- (c) be checked by the competent authorities in accordance with Article 10;
- (d) ensure that the products of processing satisfy the requirements of Annex II, Chapter III.

Approval shall be suspended as soon as the conditions under which it was granted are no longer fulfilled.

3. Establishments using low-risk material for the preparation of petfood or of pharmaceuticals or technical products must be registered by the competent authority and fulfil the following requirements;

- (a) they must have adequate facilities for storing and treating animal waste in complete safety;
- (b) they must have adequate facilities for destroying unused raw animal waste remaining after the production of petfood, pharmaceuticals or technical products, or must send it to a processing plant or to an incinerator;
- (c) they must have adequate facilities available to destroy waste material arising during the production process which is unsuitable on grounds of animal or public health for inclusion in other animal food. These facilities must include incineration or burial in suitable ground to prevent contamination of water courses or any environmental nuisance;
- (d) be inspected by the competent authority at regular intervals to check compliance with the requirements of this Directive.

#### Article 6

The treatment which certain products of animal origin exclusively derived from animals or fish and not intended for human consumption must undergo during the preparation of petfood and the conditions under which they must be manufactured shall be established under the procedure laid down in Article 19, in so far as this is necessary for the protection of pet animals or for public or animal health reasons.

#### C. Derogations

##### Article 7

The Member States may authorize in exceptional cases and under the veterinary supervision of the competent authorities:

- (i) the use of animal waste for scientific purposes;

- (ii) the use of the animal waste referred to in Article 3 (1) (a), (b) and (e), provided it comes from animals which were not slaughtered as a result of the presence or suspected presence of a notifiable disease, and the animal waste referred to in Article 5 for the feeding of zoo, circus or fur animals, recognized packs of hounds, and maggot farming for fishing bait;
- (iii) the local distribution, through intermediaries already authorized on the date of adoption of this Directive, of small quantities of the waste referred to in (ii) for use as food for animals whose flesh is not intended for human consumption, provided that the competent authority considers that this entails no risk to human or animal health.

The Council shall, acting by a qualified majority on a proposal from the Commission, adopt before 31 December 1992 veterinary and animal health rules applicable to the treatment of certain types of waste intended to be marketed locally as feedstuffs for certain animal categories.

The Commission will produce at the same time as the abovementioned proposal a report on the application of point (iii).

Pending the introduction of specific rules, knackery yards shall comply with the standards laid down by this Directive by not later than 31 December 1995.

Member States shall inform the Commission where they make use of this possibility and shall notify it of the verification arrangements they introduce to prevent such waste being used for any other purpose.

In accordance with the procedure laid down in Article 18 the Commission may amend or supplement the verification measures implemented.

#### D. General provisions

##### Article 8

Animal waste must be collected, transported and identified in accordance with Annex I.

#### CHAPTER III

#### CONTROLS AND INSPECTIONS TO BE CARRIED OUT BY EACH MEMBER STATE ON HIGH-RISK AND LOW-RISK PROCESSING PLANTS OPERATING WITHIN ITS TERRITORY

##### Article 9

1. Member States must ensure that, under their responsibility, the operators and owners of high-risk and

low-risk processing plants or their representatives adopt all measures necessary to comply with the requirements of this Directive and shall in particular:

- identify and control the critical points in the high-risk and low-risk processing plants,
- take representative samples in fishmeal manufacturing plants, and take representative samples from each processed batch in other low-risk and high-risk processing plants in order to check compliance with the microbiological standards for the product laid down in Annex II, Chapter III and the absence of physico-chemical residues,
- record the results of the various checks and tests and keep them for a period of at least two years for presentation to the competent authorities,
- introduce a system that makes it possible to link each batch dispatched and the time when it was produced.

2. Where the result of a test on samples required under this Article do not comply with the provisions of Annex II, Chapter III, the operator of the processing plant must:

- notify the competent authority immediately,
- establish the causes of failures of compliance,
- ensure that no material suspected or known to be contaminated is moved from the premises before being reprocessed under the direct supervision of the competent authority and resampled officially in order to comply with the microbiological control laid down in Annex II, Chapter III; if it is not possible to reprocess the contaminated material for any reason, it must be used for purposes other than animal feedingstuffs.

3. In accordance with the procedure laid down in Article 18, the Commission shall adopt detailed arrangements for implementing this Article.

#### Article 10

1. The competent authorities shall at regular intervals carry out inspections and random checks at the designated high-risk and low-risk processing plants on:

- their compliance with the provisions of this Directive and in particular with regard to Annex I and Annex II, Chapter I, II and III,
- the microbiological standards of the products after treatment. The microbiological controls shall include, in particular, examination for salmonella and enterobacteriaceae in accordance with Annex II, Chapter III.

The analyses and tests shall be carried out in accordance with methods which are scientifically recognized, and in

particular those laid down in Community provisions or, where none exist, in recognized international standards.

2. If the inspections carried out by the competent authority reveal that not all of the requirements of this Directive are being met, the competent authority must take appropriate action. In particular, in the case of non-compliance with the provisions of this Article in relation to microbiological standards, and the types of microbiological controls, the manufacturer must:

- notify the competent authority immediately of the full details of the nature of the sample and the lot from which it was derived,
- process or reprocess the contaminated lot under the supervision of the competent authority,
- increase the intensity of sampling and testing of production,
- investigate raw material records appropriate to the finished feed sample,
- instigate appropriate decontamination and cleaning procedures within the plant.

3. In accordance with the procedure laid down in Article 19, the Commission shall, if necessary, adopt the detailed arrangements for implementing this Article.

#### Article 11

Each Member State shall draw up a list of approved establishments processing animal waste within its own territory. Each plant shall be assigned an official number which identifies the plant as processing high-risk or low-risk material, or producing petfood or technical or pharmaceutical products from animal waste.

The Member States shall forward this list and its up-dates to the other Member States and to the Commission.

### CHAPTER IV

#### Article 12

1. Veterinary experts from the Commission may, in so far as is necessary to ensure uniform application of this Directive, and in collaboration with the national authorities, make on-the-spot checks; they may in particular verify whether approved establishments are actually complying with this Directive. The Commission shall inform the Member States of the results of the checks.

A Member State in whose territory a check is being carried out shall give all the necessary assistance to the experts in carrying out their duties.

The general arrangements for implementing this Article shall be adopted in accordance with the procedure laid down in Article 19.

2. The Member States concerned shall take all necessary measures to take account of the result of the checks referred to in paragraph 1 and shall in particular prohibit the placing on the market of products coming from a processing plant which no longer complies with this Directive. If the Member State fails to take such measures, or if the measures are deemed to be inadequate, Article 8 of Council Directive 89/662/EEC of 11 December 1989 concerning veterinary checks in intra-Community trade with a view to the completion of the internal market <sup>(1)</sup> shall apply.

#### Article 13

1. Directive 90/425/EEC shall apply, in particular with respect to the organization and following-up of checks carried out by the Member State of destination and the protective measures to be applied.

2. Directive 90/425/EEC shall be amended as follows:

(a) the following shall be added at the end of Annex A:  
'Council Directive 90/667/EEC of 27 November 1990 laying down the veterinary rules for the disposal and processing of animal waste, for its placing on the market and for the prevention of pathogens in feedingstuffs of animal or fish origin and amending Directive 90/425/EEC.

OJ No L 363, 27. 12. 1990, p. 51.;

(b) the first indent of Annex B shall be deleted.

#### Article 14

In accordance with the procedure laid down in Article 18, the Commission shall establish the conditions for the hygienic manufacture of petfood from animal waste.

In accordance with the procedure laid down in Article 18, the Commission shall establish criteria for sampling and for microbiological controls.

### CHAPTER V

#### FINAL PROVISIONS

#### Article 15

1. The Commission, acting in accordance with the procedure laid down in Article 19, shall establish the detailed arrangements for and frequency of the checks provided for in Articles 9 and 10 (1).

<sup>(1)</sup> OJ No L 395, 30. 12. 1989, p. 13.

2. The Commission, acting in accordance with the same procedure, shall establish the reference methods for the microbiological analyses.

#### Article 16

The Annexes to this Directive and, with particular regard for developments in scientific knowledge on controlling bovine spongiform encephalitis (BSE), the provisions relating to the treatments provided for in Chapter II, points 6 (a) and (c), shall be amended by the Council acting by a qualified majority on a proposal from the Commission.

#### Article 17

Pending the implementation of Community rules concerning the importation from third countries of animal waste and petfood manufactured from animal waste, Member States shall apply to those imports conditions at least equivalent to those laid down in this Directive, except for those concerning the conditions of approval.

In particular, they shall not admit low-risk or high-risk material referred to in Article 3 (1) (g) to (i) which has previously been treated unless the third country is able to guarantee that such material has undergone adequate treatment and complies with the microbacteriological standards set in Annex II, Chapter III.

The import of high-risk materials referred to in Article 3 (1) (a) to (f) shall be prohibited.

The Member States shall ensure that these minimum requirements are complied with by means of import controls.

#### Article 18

1. Where the procedure laid down in this Article is to be followed, matters shall be referred without delay to the Standing Veterinary Committee set up by Decision 68/361/EEC <sup>(2)</sup> (hereinafter referred to as 'the Committee') by its chairman, either on his own initiative or at the request of a Member State.

2. The votes of the representatives of the Member States within the Committee shall be weighted in the manner laid down in Article 148 (2) of the Treaty. The chairman shall not vote.

3. The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within two days. The opinion shall be delivered by a majority of 54 votes.

4. The Commission shall adopt the measures envisaged and implement them immediately if they are in accordance with the opinion of the Committee.

<sup>(2)</sup> OJ No L 255, 18. 10. 1968, p. 23.

5. If the measures envisaged are not in accordance with the opinion of the Committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of a period of 15 days from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission save where the Council has decided against the said measures by a simple majority.

#### Article 19

1. Where the procedure laid down in this Article is to be followed, matters shall be referred to the Committee without delay by its chairman, either on his own initiative or at the request of a Member State.

2. The votes of the representatives of the Member States within the Committee shall be weighted in the manner set out in Article 148 (2) of the Treaty. The chairman shall not vote.

3. The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by a majority of 54 votes.

4. The Commission shall adopt the measures envisaged and implement them immediately if they are in accordance with the opinion of the Committee.

5. If the measures envisaged are not in accordance with the opinion of the Committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of a period of three months from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission, save where the Council has decided against the said measures by a simple majority.

#### Article 20

The Council shall, acting by a qualified majority on a proposal from the Commission not later than 31 December

1992, adopt the animal health rules to be complied with during the manufacture of feedingstuffs which contain animal and vegetable products as ingredients, and the rules of hygiene to be complied with during the manufacture of feedingstuffs the ingredients of which are exclusively of vegetable origin.

#### Article 21

1. The Member States shall bring into force, not later than 31 December 1991 the law, regulations and administrative provisions necessary to comply with this Directive.

2. However, for the territory of the Länder of Mecklenburg-W. Pomerania, Brandenburg, Saxony-Anhalt, Saxony and Thuringia, the Federal Republic of Germany shall have a further year within which to comply with this Directive.

The Federal Republic of Germany shall, not later than 30 June 1992, submit to the Council and the other Member States, meeting within the Standing Veterinary Committee, a report on the animal waste disposal situation in those Länder.

In accordance with the procedure laid down in Article 19, the Commission shall decide on any subsequent transitional measures for certain establishments located in those Länder.

3. When Member States adopt the measures referred to in paragraph 1, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

#### Article 22

This Directive is addressed to the Member States.

Done at Brussels, 27 November 1990.

*For the Council*

*The President*

V. SACCOMANDI

*ANNEX I***HYGIENE REQUIREMENTS FOR THE COLLECTION AND TRANSPORT OF ANIMAL WASTE**

1. Animal waste must be collected and transported to approved establishments or the high or low-risk processing plants in suitable containers or vehicles in such a way as to prevent leakage. The containers or vehicles must be adequately covered.
2. Vehicles, tarpaulin covers and reusable containers must be maintained in a clean condition.
3. The competent authority shall take the necessary measures to control the movements of high-risk materials by requiring the keeping of records and documents, which shall accompany those materials during their transport to the place of disposal, or, if necessary, by sealing.
4. Where certain meat, dairy and fish products not intended for human consumption and derived from animals or fish, the meat or milk of which has been approved for human consumption are transported directly in bulk to a processing plant, the information on the origin, name and nature of the animal waste and the words 'not for human consumption' must also be indicated on a label attached to the container, cartons or other packaging material in letters at least 2 cm high.



## ANNEX II

## HYGIENE REQUIREMENTS FOR ANIMAL-WASTE PROCESSING PLANTS

## CHAPTER I

## Approval requirements for animal-waste processing plants

1. Premises and facilities must meet at least the following requirements:
  - (a) the premises of the processing plant must be adequately separated from the public highway and other premises such as slaughterhouses. Premises for the processing of high-risk material must not be at the same site as slaughterhouses, unless in a completely separate part of a building; unauthorized persons and animals shall have no access to the plant;
  - (b) the plant must have a clean and an unclean section, adequately separated. The unclean section must have a covered place to receive the animal waste and must be constructed in such a way that it is easy to clean and disinfect. Floors must be laid in such a way as to facilitate the draining of liquids. The plant must have adequate lavatories, changing rooms and washbasins for staff;  
in the unclean section, where appropriate, there must be adequate facilities for de-skinning or de-hairing of animals and a storage room for hides;
  - (c) the plant must have sufficient capacity and hot water and steam production for the processing of animal waste in accordance with Chapter II;
  - (d) the unclean section must, if appropriate, contain equipment to reduce the size of animal waste and equipment for loading the crushed animal waste into the processing unit;
  - (e) a closed processing installation is required in which the animal waste must be processed in accordance with Chapter II. Where heat treatment is required, this installation must be equipped with:
    - measuring equipment to check temperature and, if necessary, pressure at critical points,
    - recording devices to record continuously the results of measurements,
    - an adequate safety system to prevent insufficient heating;
  - (f) to prevent recontamination of the finished processed material by incoming raw material, there must be clear separation between the area of the plant where the incoming raw material is unloaded and processed and the areas set aside for further processing of the heated material and the storage of the finished processed product.
2. The processing plant must have adequate facilities for cleaning and disinfecting the containers or recipients in which animal waste is received and the vehicles — other than ships — in which it is transported.
3. Adequate facilities must be provided for disinfecting the wheels, immediately before their departure, of vehicles transporting high-risk material or leaving the unclean section of a processing plant.
4. A waste-water disposal system meeting hygiene requirements is required for the processing plant.
5. The processing plant must have its own laboratory or make use of the services of a laboratory equipped to make the essential analysis and, in particular, to check conformity with Chapter III.

## CHAPTER II

## Hygiene requirements relating to operation in animal-waste processing plants

1. Animal waste must be processed as soon as possible after arrival. It must be stored properly until processed.

2. Containers, recipients and vehicles used for the transport of animal waste must be cleaned, washed and disinfected after each use.
3. Persons working in the unclean section must not enter the clean section without changing their working clothes and footwear or without disinfecting the latter. Equipment and utensils shall not be taken from the unclean section into the clean section.
4. Waste water originating in the unclean section must be treated to ensure that no pathogens remain.
5. Preventive measures against birds, rodents, insects or other vermin must be taken systematically.
6. Animal waste must be processed under the following conditions:
  - (a) high-risk material must be heated to a core temperature of at least 133 °C for 20 minutes at a pressure of 3 bar. The particle size of the raw material prior to processing must be reduced to at least 50 mm by means of a prebreaker or grinder;
  - (b) recording thermographs must be provided at the critical points of the heating process to monitor the heat treatment;
  - (c) other systems of heat treatment may be used provided that they are approved in accordance with the procedure laid down in Article 19 as offering equivalent guarantees with regard to microbiological safety.

Such alternative heat treatment systems may be approved only where the final product has been sampled on a daily basis over a period of one month to ensure compliance with the microbiological standards laid down in Chapter III (1) and (2). Subsequent routine sampling of the products as provided for in Articles 9 (1) and 10 (1) must also be carried out.
7. Installations and equipment must be kept in a good state of repair and measuring equipment must be calibrated at regular intervals.
8. The finished products must be handled and stored at the processing plant in such a way as to preclude recontamination.
9. Hides must be salted using sodium chloride.

### CHAPTER III

#### Requirements concerning the products after processing

1. In the case of high-risk materials, samples of the finished products, taken directly after heat treatment, must be free from heat-resistant pathogenic bacteria spores (*Clostridium perfringens* absent in 1 g of the product).
2. Samples of the final products from both low-risk and high-risk material taken during or upon withdrawal from storage at the processing plant must comply with the following standards:

Salmonella: absence in 25 g:  $n = 5$ ,  $c = 0$ ,  $m = 0$ ,  $M = 0$ ,

*Enterobacteriaceae*:  $n = 5$ ,  $c = 2$ ,  $m = 10$ ,  $M = 3 \times 10^2$  in 1 g,

where

$n$  = number of units comprising the sample;

$m$  = threshold value for the number of bacteria; the result is considered satisfactory if the number of bacteria in all sample units does not exceed  $m$ ;

$M$  = maximum value for the number of bacteria; the result is considered unsatisfactory if the number of bacteria in one or more sample units is  $M$  or more;

$c$  = number of sample units the bacterial count of which may be between  $m$  and  $M$ , the sample still being considered acceptable if the bacterial count of the other sample units is  $m$  or less.