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Proposal for a

COUNCIL DIRECTIVE

in the examination for trichinae (*trichinella spiralis*)
upon importation from third countries of fresh meat
derived from domestic swine

(submitted to the Council by the Commission)

COM(76) 397 final

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EXPLANATORY MEMORANDUM

This proposal for a Directive follows upon the task entrusted to the Commission by the Council under Article 21 of the Directive of 12 December 1972 on health and veterinary inspection problems upon importation of bovine animals and swine and fresh meat from third countries (1). In that Article it is stipulated that "The method and procedures required for detecting the presence of trichinae in fresh meat of swine shall be laid down by the Council, acting on a proposal from the Commission."

The drawing up of uniform standards in this respect also answers a real need in connection with the Community hygiene arrangements introduced by the above-mentioned Directive in respect of import of pigmeat from third countries. These arrangements can not be totally effective unless they cover the problem of detecting trichinae.

The text proposed, after establishing the principle of systematic examination of all swine whose meat is intended for the Community, lays down the conditions under which the examination must be carried out and describes the methods which must be used. The text also provides that, in certain special cases and under certain conditions, the examination may be replaced by treatment of the meat recognized as effective, to ensure the destruction of any trichinae which might be present.

(1) O.J. n° L 302, 31.12.1972, p. 28

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**Proposal for a
Council Directive**

on the examination for trichinae (*trichinella spiralis*)
upon importation from third countries of fresh
meat derived from domestic swine

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community;

Having regard to Council Directive No 72/462/EEC(1) of 12 December 1972, on health and veterinary inspection problems upon importation of bovine animals and swine and fresh meat from third countries, as last amended by Directive No 75/379/EEC(2) and in particular Article 21 thereof;

Having regard to the proposal from the Commission;

Whereas in the said Directive of 12 December 1972 the Council provided in Article 21 for the laying down of the method and procedures required for detecting the presence of trichinae in fresh pigmeat;

Whereas the application of the abovementioned Directive will not have the desired effects as long as disparities exist between the Member States as to the guarantees required in respect of the detection of trichinae upon importation of fresh meat from third countries; whereas it is therefore necessary, in order to remove these disparities, to lay down Community arrangements in this field;

Whereas, in order to protect consumer health, it is necessary that fresh pigmeat be systematically subjected to an examination by methods recognised as effective, in order to eliminate samples containing trichinae ;

Whereas when the examination is carried out in the exporting third country, it must be carried out in slaughterhouses which comply with certain conditions and which contain, in particular, a screening laboratory provided with suitable equipment;

Whereas in order to be able to distinguish the meat samples examined from those not examined it is necessary to provide for the affixing of a special mark to meat samples which have been examined with a negative result;

Whereas there should be a procedure establishing close and effective cooperation between the Commission and the Member States for assessing the advisability of permitting establishments in the third countries to carry out this examination or to work on the meat examined and also for bringing the technical provisions relating in particular to the examination methods, the requirements concerning the screening laboratories and the procedure for marking examined meat into line with technical progress and with experience acquired;

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(1) OJ L302, 31.12.1972, p.28.

(2) OJ L172, 3.7.75, p.17.

Whereas it is expedient to provide for the possibility of dispensing with examination in certain special cases and replacing it by a treatment of the meat which ensures the destruction of any trichinae which might be present; whereas this treatment must nevertheless be carried out according to certain well defined procedures and in establishments fulfilling certain conditions; whereas there should be a Community procedure for determining the cases and the conditions in which the examination may be dispensed with,

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HAS ADOPTED THIS DIRECTIVE :

Article 1

For the purposes of this Directive :

- (a) "Fresh meat" means meat of domestic swine as defined in Article 2(o) of the Council Directive No 72/462/EEC.
- (b) "Examination": refers to the examination for trichinae.

Article 2

1. The imported fresh meat must, if it contains skeletal muscles (striated muscles), have been examined systematically for trichinae under the supervision and on the responsibility of an official veterinarian.
2. This examination must be carried out in accordance with one of the methods set out in Annex I.
3. The examination normally must take place in slaughterhouses approved in accordance with Article 4 of the Council Directive n° 72/462/EEC and authorised to carry out this examination in accordance with the provisions of Article 3.

The examination shall be carried out before the health marking provided for in Chapter X of Annex B to the abovementioned Directive.

In cases where the examination has not been carried out in a slaughterhouse situated in the exporting third country, it shall be made at the time of the health inspection provided for in Article 24(2) of the abovementioned Council Directive and at the inspection posts referred to in Article 27(1) (b) of that Directive.

4. (a) Meat which has been examined with negative results shall be marked in accordance with Annex III. If the examination takes place in the slaughterhouse this marking must be made before the health marking provided for in Chapter X of the Council Directive n° 72/462/EEC.
- (b) When marking with ink, colouring may only be used as agreed in accordance with provisions provided for in Article 17(3) of the Directive referred to in point 4 (a) above.

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> Article 3

1. (a) The authorization of a slaughterhouse to carry out the examination and of a cutting plant to cut up or bone meat which has undergone such examination shall be decided on in accordance with the procedure laid down in Article 9. In particular account shall be taken of the guarantees given in respect of compliance with the provisions of this Directive and in the case of slaughterhouses :
 - (a) the presence of the rooms and apparatus necessary for carrying out the examination ;
 - (b) the qualification of the personnel responsible for making the examination ;
 - (b) A slaughterhouse or cutting plant shall be approved only if the competent authorities of the third country have officially recognised that the slaughterhouse or cutting plant is in a position to satisfy the conditions laid down in Article 4 and in Annex III ; also, in the case of a slaughterhouse, that it has a laboratory which complies with the conditions laid down in Annex II, Chapter I and is in a position to satisfy the requirements of the other Chapters of Annex II and those of Annex I.
2. On the list or lists referred to in Article 4(4) of the Council Directive n° 72/462/EEC, a special indication shall be inserted against the names of the slaughterhouses and cutting plants approved within the meaning of paragraph 1 above.

Article 4

1. In slaughterhouses authorised to carry out the examination in accordance with Article 3, swine the meat of which is intended for a Member State of the Community must be slaughtered in different rooms or at different times than the swine the meat of which is not intended for a Member State of the Community, unless the meat of such swine is examined in accordance with the same procedure.
2. The cutting and boning of meat which was examined in accordance with paragraphs 3 and 4 of Article 2 and which is intended for a Member State of the Community must be carried out in cutting plants as referred to in paragraph 1(b) of Article 18 of the Council Directive n° 72/462/EEC and authorized for this purpose in accordance with the provisions of Article 3. In these cutting plants the cutting and boning of the said meat shall be carried out in different rooms or at different times than meat not intended for a Member State of the Community, unless the latter has also been examined in accordance with the same procedure.

Article 5

The inspections in third countries provided for in Article 5 of the Council Directive n° 72/462/EC must also verify whether the provisions of this Directive are being applied.

Article 6

1. At the request of the importer or his authorized agent, examination shall not be required if the meat has, on its arrival in the Community, on the responsibility of and under the supervision of the official veterinarian, undergone heat treatment in accordance with the provisions of Annex IV, point II.
2. In accordance with the procedure laid down in Article 9 and by way of derogation from the provisions of Article 2(1) it may be decided that, under certain conditions, meat from certain third countries or parts of such countries need not be examined but may be chilled or frozen in accordance with the provisions of Annex IV, point I.

This treatment shall be carried out :

- either in an establishment situated in the exporting third country and approved in accordance with the provisions of Article 4 of the Council Directive n° 72/462/EEC,
- or at an inspection post as referred to in Article 2(3) of this Directive.

Chilling or freezing must be the subject of an attestation by the official veterinarian on the health certificates mentioned in Article 22 paragraph 3, and in Article 25 of the Council Directive n° 72/462/EEC, accompanying the meat.

Article 7

The Member States shall draw up and communicate to the Commission the list of inspection posts as referred to in Article 2(3) at which :

- the examination may be carried out,
- the chilling and freezing referred to in Article 6(2) may be carried out.

They shall ensure that these posts have the installations necessary for carrying out the operations in question.

Article 8

The provisions of the Annexes of this Directive may be amended or supplemented in accordance with the procedure laid down in Article 9.

Article 9

1. Whereas the procedure laid down in this Article is to be followed, the matter shall without delay be referred to the Standing Veterinary Committee (hereinafter called the "Committee"), set up by the Council Decision of 15 October 1968, by its Chairman, either on his own initiative or at the request of a Member State.

2. Within the Committee the votes of the Member States shall be weighted as provided in Article 148(2) of the Treaty. The Chairman shall not vote.
3. The Commission representative shall submit a draft of the measures to be adopted. The Committee shall deliver its opinion on the measures within a time limit set by the Chairman having regard to the urgency of the questions under examination. Opinions shall be delivered by a majority of forty-one votes.
4. The Commission shall adopt the measures and shall implement them immediately, where they are in accordance with the Opinion of the Committee. Where 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 on the measures to be taken.

The Council shall adopt the measures by a qualified majority.

If the Council has not adopted any measures within three months of the date on which the matter is referred to it, the Commission shall adopt the proposed measures and shall implement them immediately.

Article 10

The Member States shall bring into force the 15th January 1979 at the latest the laws, regulations and administrative provisions needed in order to comply with this Directive. The Commission is being told at once of this.

Article 11

This Directive is addressed to the Member States.

Done at Brussels,

For the Council

The President

METHODS OF EXAMINATION FOR TRICHINAE

I. Trichinoscopic examination

a) Apparatus

An incandescent lamp trichinoscope with 50 x and 80-100 x magnification.

A pressure glass consisting of two glass plates - one of which is divided into equal fields - small curved scissors, forceps, a knife for cutting specimens, small numbered containers for storing the specimens separately, a dropping pipette, a small glass of acetic acid and a small glass of potassium hydroxide solution for brightening any calcifications or softening dried flesh.

b) Taking of specimens

In the case of whole carcasses, at least one specimen of the size of a hazel nut is to be taken from both diaphragm pillars at the transition to the sinewy part. If there is only one diaphragm pillar, one specimen the size of two hazel nuts is to be taken. In the absence of both diaphragm pillars, two specimens approximately the size of a hazel nut are to be taken from the rib part or the breastbone part of the diaphragm or, as the case may be, from the lingual muscle or the jaw muscle or from the abdominal muscles.

For pieces of meat, from each piece take three samples of skeletal muscle, containing little fat, if possible the size of a hazel nut, and taken from different points, as far as possible near to bones or tendons.

c) Method

From each of the abovementioned specimens, in the case of whole carcasses and the presence of both diaphragm pillars, the trichinae observer cuts seven pieces, i.e. a total of 14, or, if only one diaphragm pillar is present, 14 pieces the size of an oat kernel, from different places, if possible at the transition to the sinewy parts, and compresses them between the glass plates in such a way that normal print can be clearly read through the slide preparation. If the flesh of the specimens to be examined is dry and old, the preparations must be softened in a mixture of one part potassium hydroxide solution to about two parts water for 10-20 minutes before pressing.

If, in the case of whole carcasses, specimens have to be taken from the rib part or the breastbone of the diaphragm, the tongue muscle or jaw muscle or the abdominal muscles, then 14 pieces the size of an oat kernel are to be cut out of each specimen, i.e. a total of 28.

From each of the samples taken from pieces of meat, the trichinosis examiner must cut 4 fragments the size of an oat kernel, that is to say a total of 12 fragments.

The trichinoscopic examination must be carried out in such a manner that each preparation is scanned slowly and carefully. If the trichinoscopic examination reveals suspect areas, the nature of which cannot be definitely ascertained even with the strong magnification of the trichinoscope, these must be checked by microscope.

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The microscopic examination should be carried out in such a manner that each preparation is scanned slowly and carefully at a magnification of 30 x to 40 x at the most.

In the case of an uncertain result, the examination must be continued on a further number of specimens and slide preparations, if necessary with the aid of higher magnifications, until complete certainty is obtained. The trichinoscopic examination must be carried out for at least three minutes.

The trichinoscopic examination must be carried out for at least six minutes in the case of substitute specimens taken from the rib part or breastbone part of the diaphragm pillars, the lingual muscle or the jaw muscle or the abdominal muscles.

The minimum time fixed for the examination does not include the time necessary for the taking of samples and making the preparations.

As a general rule, the trichinoscopic examiner should not inspect more than 840 pieces a day, though by way of exception he may inspect up to 1050.

II. The artificial digestion method

a) Apparatus and material

- knife for taking specimens,
- small numbered containers, with closures, for storing samples, also for possible repetition of the examinations,
- incubator,
- 2-3 litre glass funnel with stand, a connecting hose in rubber, clamps for fastening the connecting hose,
- a plastic sieve (approximately 18 cm in diameter, and approximately 1 mm mesh),
- gauze,
- a small tapered tube with a closed point,
- a glass block dish,
- a meat grinder,
- a stereo-microscope,
- digestive liquid according to the following composition:
10g of pepsin (1200 u/g), 5 ml HCl (at least 37%) made up to a litre with tap water.

b) Taking of specimens

1. In the case of whole carcasses take a specimen of at least 20g from a diaphragm pillar at the transition to the sinewy part. In the absence of diaphragm pillars take a specimen of at least 20g from the rib part or the breastbone part of the diaphragm or from the lingual muscle or the jaw muscle or the abdominal muscles.
2. For pieces of meat, take a sample of at least 20g of skeletal muscle, containing little fat and as far as possible near to bones or tendons.

c) Method

For the examination of a collective specimen from ten pigs, a 10g sample is prepared from each individual 20g specimen. The remaining 10g is kept for additional single-specimen examination should this
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be necessary. Ten specimens, each weighing 10g, are combined into a collective specimen; it is ground down in a meat grinder (disc with 2 mm perforations) and spread loosely on a sieve covered with a layer of gauze. The sieve is then placed in a funnel connected by a length of rubber hose to a small tapered tube, the point of which is closed; the funnel is filled from the edge with digestion liquid until the test material is completely covered. The proportion of test material to digestion liquid must be approximately 1:20 to 1:30. After 18-20 hours of incubation at 37-39°C, the small tapered tube is disconnected and removed.

After careful drawing off of the supernatant liquid, the sediment present in the tip of the tube is carefully washed in a block dish. Examine for the presence of trichinae with a stereo-microscope at 20 x to 40 x magnification.

In the case of a positive or doubtful result from the examination of a collective specimen, the remaining single specimens should be examined individually after addition of a further 20g from each pig, or in the case of pieces of meat, the addition of 20g taken from each piece, according to b) above.

III. Method using the artificial digestion of collective samples

a) Apparatus and reagents

- knife and tweezers for collecting specimens,
- meat grinder the holes of which should have a diameter between 2-3 mm,
- a 3 ml Erlenmeyer flask with a rubber or cotton-wool plug,
- a conical separation funnel of 2000 ml capacity,
- an ordinary A-base stand of approx. 28 cm length with an 80 cm rod,
- a ring, diameter approx. 10-11 cm which can be fixed to the stand,
- a clamp with a flat vice (23 x 40 mm) which can be attached to the stand by means of a double coupling,
- an Endecott sieve number 80 (mesh fineness 177) with an external diameter of 11 cm fitted with brass gauze or stainless steel,
- a plastic funnel with an internal diameter of not less than 12 cm,
- an ordinary dissection microscope (magnification 40 x) fitted with its ordinary lamp, or an ordinary binocular microscope (magnification 40 x),
- a trichinoscope with horizontal table or for the compressorium,
- when using the trichinoscope a larvae counting basin of the same outer shape as the compressorium with a volume of approx. 60-65 cm³.

The larvae counting basin may be constructed in the following way:

The shape of the basin consists of a 23 cm long glass plate being of the same thickness as that of a single plate in a common compressorium. The width, however, is slightly less, e.g. 4.5 cm in order to provide for the fixation of a glass plate, 2mm thick, 1.8 cm high, and 17.5 cm long, on both of the long sides of the bottom plate.

The basin is closed in the ends by applying directly on the bottom plate two 5 cm long, 1 cm high, and 2 mm thick glass-plate. The height of the basin, measured from inside, will thus be about 1 cm.

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The plates were glued together by ordinary glass glue. Approx. 2.8 cm of the bottom plate was left free at both ends for protection purposes, and making convenient handling of the filled basin.

The volume of the basin is approx. 60-65 cm³ in total.

- when using the microscope a number of 9 cm diameter Petri dishes are needed.
- a speedmarker used for marking out in the bottom of the Petri dish the 1 cm square formed examination areas,
- a number of 10 litre bins to be used when applying formol treatment of the apparatus and the remaining digestive juice in positive cases of findings,
- concentration (37%) hydrochloric acid,
- Merck 30 000 units per gramme pepsin in powder form, or pepsin with known strength from another firm,
- one or two trays for collection of 100 samples of approx. 2g of meat.

b) Collecting of specimens

1. In the case of whole carcasses take a specimen of approx. 2g from a diaphragm pillar at the transition to the sinewy part. In the absence of diaphragm pillars take a specimen of the same size from the rib part or the breastbone part of the diaphragm, from the lingual muscle or the jaw muscle, or the abdominal muscles.
2. For pieces of meat, take a sample of approx. 2g of skeletal muscle, containing little fat and as far as possible near to bones or tendons.

c) Method

- Approx 1g of sample is drawn from each of 100 samples from the pigs. The pooled sample is ground once in the grinder.
- The ground meat is placed in the 3 litre Erlenmeyer flask together with 7g pepsin, approximately 2 litres of tap water, temperature about 37-40°C, and 25 ml concentrated hydrochloric acid. The mixture is shaken for solution of the pepsin.

The pH in the solution will be about 1.5-2.

- For digestion the Erlenmeyer flask is incubated at 37°C for approx. 4 hours. The flask is regularly shaken during the time of incubation e.g. once or twice every hour.
- The digested solution is filtered through the sieve into the conical 2 l. separation funnel and left undisturbed in the stand for at least 1 hour.
- A total volume of approximately 45 cm³ is run out of the funnel and equally divided between three Petri dishes, the bottoms of which are marked out in 1cm squares i.e. 15 ml in each.
- Each Petri dish is minutely examined for larval trichinae under the microscope (around 40x magnification).
- Where larval counting basins are employed, the 45 cm³ are distributed between two larval counting basins and examined with the trichinoscope.

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- The larvae appear as curled-up organisms in the deposit and look rather like watch springs. They are easily identifiable and often, when the water is lukewarm, make rolling and unrolling movements of the "spiral".

If an insufficiently transparent sediment forms, it is clarified by means of rinsing. Then the final sample of 45 ml is poured into a test tube and allowed to settle for fifteen minutes. The supernatant is then carefully sucked off and what remains suspended in about 45 ml of tap water.

After a further settling period of fifteen minutes, the supernatant is again carefully sucked off and the sediment is carefully rinsed with about 20 ml of tap water in a petri dish and examined.

In the case of a positive or doubtful result from the examination of a collective specimen, the remaining single specimens should be examined individually after addition of a further 20g from each pig, or, in the case of pieces of meat the addition of 20g taken from each piece, according to b) above.

CHAPTER I

CONDITIONS FOR THE AUTHORISATION OF TRICHINAE (TRICHINELLA SPIRALIS)
LABORATORIES

1. Trichinae laboratories must be situated next to the swine slaughterhouses and be in possession of at least the following:
 - (a) a room suitably equipped for the preparation of specimens and lockable by key; its walls must be smooth and must be covered by a washable, light-coloured coating or paint up to a height of two metres. A preparation room must be provided for each method of examination used;
 - (b) an adequately equipped lockable examination room for microscopy and trichinoscopy;
 - (c) equipment providing adequate ventilation and, if necessary, air conditioning equipment which ensures that the room temperature does not exceed $+ 25^{\circ}\text{C}$;
 - (d) adequate natural or artificial lighting which does not alter colours; direct sunlight must be avoided;
 - (e) in the preparation room, adequate equipment for cleansing and disinfecting hands;
 - (f) equipment for darkening the examination room;
 - (g) if necessary, refrigerators in which to store meat samples;
 - (h) a washroom for cleansing and disinfecting examination equipment (e.g. containers for samples, compressors, knives and scissors), with
 - a floor covering which is watertight and rot-proof and easy to clean and disinfect,
 - smooth walls which, up to a height of at least two metres, are covered by a washable, and light-coloured coating or paint;
 - (i) changing rooms, wash basins and rest rooms and flush lavatories;
 - (j) wash basins with hot and cold running water of potable quality, provided with cleansing and disinfecting materials and disposable towels;
 - (k) watertight non-corrodible containers, with hermetically sealed lids, which are so designed that unauthorised removal of the contents is prevented, for collecting the samples after examination;
 - (l) adequate supplies of hot and cold water of potable quality;
 - (m) equipment for removing waste water which fulfils the conditions for the authorisation of slaughterhouses;
 - (n) proper arrangements for protection against pests (insects, rodents, etc.)

ANNEX II

CHAPTER II

REQUIREMENTS APPLICABLE TO STAFF, PREMISES, EQUIPMENT AND INSTRUMENTS IN TRICHINAE LABORATORIES

2. Absolute cleanliness is required at all times of laboratory staff, premises, equipment and instruments.
 - (a) Staff must wear clean working clothes and wash their hands several times during working hours and after each break;
 - (b) no animal may enter trichinae laboratories;
 - (e) equipment and working instruments must be kept clean and in good repair. They must be carefully cleansed and disinfected several times during working hours and at the end of the working day.
3. Water of potable quality must be used for all purposes.
4. As regards health, staff taking meat samples for examination must comply with the rules in Annex B, Chapter IV, points 11 and 12, to the Council Directive n° 72/462/EEC.
5. The meat samples necessary for the examination must be taken immediately after slaughter and examined without delay in the trichinae laboratory of the slaughterhouse.
It is prohibited to carry out examinations away from the slaughterhouse in which the animals were slaughtered.
6. To avoid fatigue and its consequences, inspection staff should be given short breaks during the working day.

CHAPTER III

REQUIREMENTS IN RESPECT OF TRICHINOSCOPES

The construction and design of trichinoscopes must meet at least the following criteria:

1. simple operation
2. high light intensity
 - accurate results must be obtainable even in a room which is completely dark,
 - a projector bulb of 100 W (12 V) must be used as the light source.
3. adequate magnification
 - normal working magnification: x 50
 - strong magnification for more detailed examination of suspect specimens: x 70 to x 100.
4. resolving power
 - a clear sharp picture of well-defined colour must be obtainable at each magnification
5. switch mechanism
 - each change of magnification must be accompanied by automatic adjustment of the brightness of the image
6. increase of contrast
 - the condensor must be provided with an iris diaphragm enabling the contrast to be increased for the inspection of difficult objects
 - the iris diaphragm must be easy to operate (e.g. control lever on the platform of the trichinoscope).

7. Easy focusing
 - rapid focusing by means of an adjusting ring
 - precise focusing by means of a control lever
8. Regulation of the voltage
 - adjustment to the brightness in a particular case
9. One-way movement of the compressor
 - an automatic blocking mechanism must ensure that the compressor moves in only one direction, to prevent unintentional displacement
10. Free view of the projector screen
11. Projector screen
 - at least 54 cm in diameter
 - high reflecting capability
 - durable
 - dismountable
 - easy to clean.

MARKING OF MEAT WHICH HAS BEEN EXAMINED FOR TRICHINAE

1. Marking of the meat must be carried out under the responsibility of the official veterinarian. For this purpose, he shall keep and maintain:
 - the instruments intended for marking which he may hand over to the assistant staff only at the time of marking and for the length of time required for this purpose,
 - the seals mentioned in paragraph 5. These seals shall be given to the assistant staff at the time when they must be used and in the required number.
2. The mark must be round with a diameter of 2,5 cm. The following information must appear on the mark in perfectly legible characters:
 - towards the centre the capital letter T with bars 1 cm long and 0.2 cm wide,
 - under the letter T one of the following sets of initials: CEE, EEG, EWG, EØF or EEC. The letters must be 0.4 cms high.
3. Carcasses must be marked in ink or hot-branded on the inside of the thighs, in accordance with paragraph 2.
4. Heads must be marked in ink or hot-branded, with a mark meeting the requirements of paragraph 2. With the exception of those exempt from health marking by virtue of paragraph 43 of Chapter X of Annex B to the Council Directive n° 72/462/EEC, cuts obtained in cutting plants from carcasses marked in accordance with the rules must, where they bear no stamp, be marked in accordance with paragraph 2 before the health mark is affixed.

The label provided for in the 2nd subparagraph of the abovementioned paragraph 43 must comply with the conditions of paragraph 6 below.
5. Marking may also be effected by means of a round tag. This tag, to be affixed to each cut or to each carcass must not be reusable, must be made of resistant materials and must meet all hygiene requirements. The following information must appear on the stamp seals in perfectly legible characters:
 - towards the centre the capital letter T,
 - under the letter T one of the following sets of initials: CEE, EEG, EWG, EØF, or EEC. The letters must be 0.2 cm high.
6. The label provided for in paragraph 44 of Chapter X of Annex B to the Directive mentioned in paragraph 4 above must, in addition to the health mark, bear a clearly legible mark which is the replica of the mark provided for in paragraph 2.

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I. THE FREEZING OF MEAT

1. Before it is brought into the refrigeration room the meat must be pre-chilled throughout to a temperature of 0° to $+2^{\circ}\text{C}$. Meat which is brought in already frozen must be kept in this condition.
2. The technical equipment of the refrigeration room, and the feeding of the supply of meat to it, must be such as to ensure that the temperature referred to in No 6 is reached and maintained in all parts of the room and of the meat.
3. Insulated packaging should be removed before freezing, except for meat which has already reached throughout the temperature referred to in No 6 when it is brought into the refrigeration room.
4. Consignments in the refrigeration room must be kept separately and locked up.
5. The date and time when each consignment is brought into the refrigeration room must be marked on it.
6. The temperature in the refrigeration room must be at least -25°C . It should be measured with calibrated thermo-electric instruments and continuously recorded. It may not be measured directly in the cold air flow. The instruments must be kept under the protection of a lock. The graphs must include the relevant numbers from the meat inspection register on importation and the date and time of the commencement and completion of freezing, and must be retained for one year after compilation.
7. Meat with a diameter or thickness of up to 25 cm must be frozen for at least 240 consecutive hours, and meat with a diameter or thickness of more than 25 cm to 50 cm must be frozen for at least 480 consecutive hours. This freezing process may not be applied to meat which has a larger diameter or is thicker. The freezing time is calculated from the point when the temperature referred to in No 6 is reached in the freezing room.

II. HEAT TREATMENT

1. The packaging, unless it is heat-proof, should be removed before heating. The meat, which must not be treated in any way, should be stored separately and kept sealed until heating is completed.

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ANNEX IV

2. The centre of the meat should be heated at a minimum temperature of $+80^{\circ}\text{C}$ for at least 10 minutes. The temperature for each heating operation should be measured thermo-electrically with calibrated instruments at the thickest (or at a central) part of the packaging and the readings obtained should be recorded continuously.

For import control purposes the appropriate logbook numbers and the day and month of each heating operation should be appended to the records, which should be kept on file for one year.