Industry Standard 7
Byproducts

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Preface

Industry Standard 7 has been developed in consultation with Industry, MAF Verification Agency and MAF Food Assurance Association (MAF Food) and has been endorsed by the Meat Industry Standards Council, Ostrich and Emu Standards Council, Poultry Industry Standards Council, Seafood Standards Council and Venison Industry Standards Council.

It is the New Zealand standard for processing and handling of byproduct in any premises licensed under the Meat Act 1981 and in premises approved by MAF Food.

It is an official circular issued by the Director Animal Products pursuant to the Meat Act 1981, under delegated authority from the Director General of Agriculture and Forestry.

Review of Industry Standard 7

This industry standard shall be regularly reviewed according to a schedule held by MAF Food Assurance Authority (Animal Products).

The co-ordinator welcomes suggestions for alterations, deletions or additions to this standard, to improve it or make it more suited to Industry needs. Suggestions should be sent to the co-ordinator on the form on Page P.4 together with reasons for the change and any relevant data.

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Suggestions for Changes

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_____

_____

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Industry Standard 7

Section	Suggested Improvements

Signature:	Date:
Please post to: National Manager (Systems) MAF Food PO Box 2526 Wellington	**Acknowledgement of receipt:** Signature: Date:

Amendment Record

Amendments to this manual will be given a consecutive number and will be dated.

Please ensure that all amendments are inserted, obsolete pages are removed, and the record below is completed.

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1. Introduction

Background

Byproducts, according to the Meat Act 1981, includes any article that is derived from any farmed deer, fish, game, possum, rabbit or stock which is not intended for use, or capable of being used, for human consumption. In effect, this means that every article from any animal is in fact a byproduct unless it is intended for human consumption, in which case it must satisfy a criteria for a product (an article or substance that is fit for human consumption).

Byproducts may include normal healthy tissues, diseased and defective tissues, processing scraps and wastes and tissues from animals that have died in the field. The sources of raw materials may be derived from farmed animals that are slaughtered for human consumption, animals slaughtered specifically for the purposes of producing byproducts, animals that have been killed in the field, animals that have died in the field or died in transit, animal tissues that have been recovered from the field, or from animal tissues that have been imported into New Zealand for the purposes of preparing byproducts.

Byproducts may be used as fertiliser, animal foods or animal food ingredients, raw materials for medicines and raw materials for industrial use. In some cases they may be re-converted to food, e.g. gelatine, and so become products. Byproducts need to be prevented from entering the food chain, except under certain controlled circumstances. They must be managed so that the risk of cycling contaminants through animals does not result in disease or harm to animals or people. These contaminants may be natural or unnatural environmental chemicals, agricultural chemicals, veterinary medicines, pathogenic organisms or modified organisms (e.g. antibiotic resistance) or processing chemicals (e.g. tannery aids, pelt preservatives). Contamination of food producing animals may occur through ingestion, as animal foods, or as a consequence of the animal environment. Byproducts can play a significant role as vehicles for the concentrating of these contaminants and their redistribution to other animals and to people.

In establishing criteria for byproducts, the objectives are to prevent byproducts entering the food chain and to manage the risks of diseases and other substances or agents associated with byproducts resulting in direct or indirect harm to animals or people.

The requirements outlined in this Industry Standard set out to provide a framework for the management of byproducts. However, there are issues addressed in this Industry Standard which fall within the jurisdiction of several different pieces of legislation and the framework provided by this standard has had to take this into account.

Scope

Industry Standard 7 (IS 7) describes the controls that are necessary so that byproducts and classes of byproducts are fit for intended purpose, are not used for any prohibited purpose, and do not result in any direct or indirect harm to animals or people. IS 7 shall apply to all articles derived from animals and animal food, including seafood, but will not include articles derived from products, dairy products, skins, hides, animal fibres, eggs, vaccines or genetic material unless these articles are used in the preparation of byproducts.

1.1 Outcome

Byproducts shall:

- be fit for intended purpose;
- be prevented from entering the food chain except via approved mechanisms; and
- should not result in direct or indirect harm to animals or people.

1.2 Definitions

Unless otherwise defined, terms will have the same meaning as Section 2 of the Meat Act and its pursuant regulations or the Concise Oxford Dictionary.

Apparently healthy means any animal that does not display any abnormal behaviour or show any visible evidence of disease or adverse defect in the view of a person who is familiar with the normal behaviour of the type of animal.

Animal Food means substances prepared from articles derived from animals and intended for feeding to animals.

Byproduct means any article not intended nor capable of being used for human consumption that is derived in whole or in substantial or known quantities from animals [Meat Act 1981].

Competent person is a person with any specific competency as defined in any standard, specification or requirement, who may provide expert technical advice within the scope of the particular standard, specification or requirement. In respect of assessing a healthy animal means a person holding a qualification recognised by the New Zealand Qualifications Authority, or similar standard that is acceptable to the Director-General.

Dead animal means any terrestrial or avian animal that has died from any cause other than by slaughtering or killing.

Healthy animal means any animal that has been inspected by a competent person and, in the opinion of that person, does not display any abnormal characteristic that would prevent its use for food.

High risk raw materials means those materials that are declared by the D-G to contain infectious agents, or substances harmful to animals or people, that have become introduced into New Zealand or have arisen as a consequence of recent agricultural or industrial developments.

Killed animal means any healthy or apparently healthy animal that has died by an approved method of killing and is intended to be used as food or animal food.

Medium risk raw materials means those materials derived from animals of New Zealand origin where the hazards to people and animals can be treated to minimise the likelihood of harm when the materials are used for intended purpose.

Minimal risk raw materials means those materials derived from animals of New Zealand origin that are not considered to result in any direct or indirect harm to animals or people when the materials are used for intended purpose.

Pet food means animal foods intended for any domestic cat or dog and includes zoo carnivores, farmed carnivores (e.g. the mustelidea) and may include aquatic animals.

Render means to thermally process raw material in a byproduct premises licensed under Section 20 (b) of the Meat Act 1981.

Slaughtered animal means any animal that has died by slaughtering in any premises licensed under the Meat Act 1981 or approved by the Director General for the purpose of slaughtering animals.

Raw material means any animal tissue intended as a byproduct that has not undergone any treatment or has not been modified in any way. Raw material may be refrigerated, or stabilised by chemical treatment.

Treated means subjected to an approved process that will minimise the hazard of concern.

1.3 General Principles

1.3.1 All byproducts shall be processed in premises licensed or approved by MAF Food. Any premises licensed or approved to slaughter mammals and birds shall comply with any requirements for the humane slaughter of animals (see Slaughter of Stock, Game and Poultry Regulations 1969) and the welfare of animals during transportation and pre-slaughter holding, see relevant sections of IS 4 and IS 5.

1.3.2 Byproducts shall be fit for purpose and conform to any specific market requirements of any importing country.

1.3.3 All byproducts shall be prevented from entering the food chain by restricting their processing to dedicated byproduct facilities, or by denaturing, or staining, or appropriate labelling, or implementing appropriate security arrangements.

1.3.4 Medium risk raw materials shall be treated to minimise, in the light of current knowledge, risks of disease and the likelihood of harm to animals and people.

1.3.5 High risk raw materials shall be handled and treated according to D-G specifications, which may be drawn up to meet the requirements of each specific case.

1.4 Cross References

1.4.1 Licensing, or approval by MAF Food, of premises that may carry out the processing and handling of byproducts shall conform to procedures in Manual 1.

1.4.2 Design and construction shall conform to the requirements in IS 2, IAS2, IAIS 001, IAIS 006 as appropriate.

1.4.3 Maintaining separation of byproducts in premises licensed to process products shall conform to the requirements in IS 3, IAS 3, IAIS 003, IAIS 006 as appropriate.

1.4.4 Processing, handling and maintaining separation of byproducts in premises which are registered in terms of the Health (Registration of Premises) Regulations 1966 to process and handle food should conform to requirements of the Food Hygiene Regulations 1974.

1.4.5 Transport and storage shall conform to the requirements in Manual 9, IAIS 003 as appropriate.

1.4.6 Certification and specific importing country requirements shall conform to the requirements in the Overseas Market Access Requirements (OMAR) and Official Assurances Programme.

1.4.7 Chemicals shall conform to the requirements in Manual 15.

1.4.8 Acts and regulations that relate to this standard are:

- Animal Welfare Act 1999
- Agricultural Compounds and Veterinary Medicines Act 1998
- Biosecurity Act 1993
- Dog Control Act 1996
- Fish Export Processing Regulations 1995
- Meat Act 1981
- Meat Regulations 1969, Game Regulations 1975
- Slaughter of Stock, Game and Poultry Regulations 1969
- Stock Foods Act 1946 (until superseded by the ACVM Act 1998)
- The Food Act 1981, Food Regulations 1984
- The Health Act 1956 and Food Hygiene Regulations 1974
- Veterinarians Act 1994

1.5 Layout of Industry Standard

1.5.1 Scope

Each section commences with a scope which broadly describes the activity to which the requirement applies.

1.5.2 Outcome

The outcome is the principal requirement. It is a statement of what is intended to be achieved and is a fundamental component of the New Zealand system for managing the fitness for purpose of byproducts derived from animals. It also provides a basis for determining equivalence of alternative general or specific principles with the New Zealand standard.

1.5.3 General Principles

The general principles described in this standard are based on regulatory requirements and good manufacturing practice and provide broad principles for achieving the desired outcome.

1.5.4 Specific Principles

The specific principles are recognised as methods of delivering the required outcome. The principles described in this standard are based on regulatory requirements and good manufacturing practice in light of current information. The general and, where appropriate, specific principles outlined in this IS should be applied together. The legal requirements relating to byproducts are complex and may not provide flexibility to develop alternative methods of achieving outcomes.

There are no headings which identify specific principles. A specific principle will be identified as any major heading (with two-digit numbering and in a bold 14 pt typeface) which occurs in sequence after general principles.

1.5.5 Importing Country Requirements

International recognition of any activity and associated procedure described in this standard may differ from country to country hence specific importing country requirements should be consulted in every case.

1.5.6 Explanatory notes

Any text which has been enclosed in a single bordered box does not form part of the standard. They are generally explanatory notes which are intended to expand the general intent of the particular requirement and may serve to clarify compliance with the requirements in some circumstances, in other cases they act as qualifiers to indicate that the proposed standard is not yet able to be utilised or that further development is required. They have been positioned immediately after the section to which they apply.

1.5.7 Director-General

Wherever it is a requirement in this IS to report to, or seek the approval of the Director-General (D-G) then the communication shall be addressed to the Director Animal Products.

2. Eligible Raw Material

Scope

This section describes sources of origin and different types of raw material and their eligibility for use in different classes of byproduct.

2.1 Outcome

Raw materials that are derived from sources which may result in direct or indirect disease and/or harm to animals or people shall be restricted from use until they have been appropriately treated and are fit for the intended purpose.

2.2 General Principles

2.2.1 Minimal risk raw materials

Minimal risk raw materials may be handled, stored, transported or exported in an untreated and unprocessed form provided the minimal risk status is maintained.

2.2.2 Medium risk raw materials

Medium risk raw material shall be suitably treated to minimise the hazard before being released for use.

2.2.3 High risk raw materials

High risk raw material shall be dealt with according to the Director-General's requirements.

2.3 Minimal Risk Raw Materials

2.3.1 Application

This section applies to raw materials that are not regarded as hazardous and do not require treatment to minimise the risk of disease or harm to animals or people.

2.3.2 Eligible sources

2.3.2.1 Minimal risk raw materials shall be derived from animals slaughtered and/or processed at premises licensed or approved by MAF Food. This will include any:

- abattoir,
- animal processing premises,
- approved poultry processing premises,
- approved slaughter premises,
- deer slaughter premises,
- export slaughterhouse,
- fish packing house or fishing vessel,
- packing house,
- premises registered under the Health (Registration of Premises) Regulations 1966.

2.3.2.2 Minimal risk raw materials may also be derived from:

(a) approved species of animals killed in the field for humane reasons and intended for processing into pet food, see IS7 Section 2.3.3.5

(b) fresh or frozen fish suitable for use as food, pet food or bait.

2.3.2.3 Live animals

(a) Minimal risk raw materials may be derived from healthy live animals, e.g. blood, induced calves, horns, antlers etc.

(b) Harvesting of minimal risk raw materials shall conform to any legal requirement relating to procedures on live animals, e.g. Veterinarians Act 1994, Animal Welfare Act 1999, recommendations of the National Animal Welfare Advisory Committee.

(c) Any animal remedy used to facilitate the recovery of raw materials from live animals shall not cause harm and tissues shall conform with IS7: Section 4.5.

2.3.3 Criteria for minimal risk raw materials

2.3.3.1 Minimal risk raw materials derived from seafood or slaughtered or killed animals shall conform to the relevant requirements outlined in IAIS 3, IAIS 005, IAIS 006 or Manual 16 for products and, where appropriate, for pet food.

2.3.3.2 Tissues from the urogenital tract, including, placenta, tissues from the endocrine and nervous systems of healthy killed or slaughtered animals that are not ordinarily saved for food may be saved as minimal risk raw materials provided the tissues are not diseased and the carcass or relevant parts of the animal are not required to be rendered.

2.3.3.3 Foetuses and foetal blood derived from slaughtered stock or farmed deer may be saved as minimal risk raw materials provided the uterus is not diseased and/or the carcass condemned. The foetuses and/or foetal blood may only be used for pharmaceutical or biological purposes.

2.3.3.4 Processing scraps and wastes that are obtained from the processing of seafood or slaughtered or killed animals into edible product may be regarded as minimal risk raw materials. Scraps and wastes will include skins and pelts, boning room wastes, fish heads, gut or frames from products intended for domestic consumption which are derived from premises registered under the Health (Registration of Premises) Regulations 1966. Scraps and waste may be handled through normal waste material handling systems and may include dropped product.

2.3.3.5 Injured stock and farmed deer are approved animals that may be killed in the field for humane reasons and used for processing into pet food provided they:

(a) shall not have been obtained from any area where poisoning operations had been carried out within the time frames specified for the type of poison and species of pest, see TD 99/133.

(b) had suffered only traumatic injury (broken legs, calving paralysis) or starvation/exposure (drought or snow bound animals) which otherwise prevents humane transport of the live animal.

(c) were killed using approved methods of inducing insensibility, e.g. captive bolt or firearm, and bleeding.

(d) had been assessed by an independent competent person who reported that the animal killed in the field met all the eligible criteria for minimal risk raw material. The report is to be submitted with the animal and identify the origin of the animal and specify the relevant eligible criteria.

2.3.4 Handling minimal risk raw materials

Minimal risk raw materials shall be handled in a manner that minimises contamination from diseased raw materials and from any substance or article in the processing environment that is likely, in the light of current information, to result in harm.

The principles of separation of processing, protection of product and general sanitation and hygiene outlined in IS 3, IAS 3, IAIS 003 may be considered as a guide.

2.4 Medium Risk Raw Materials

2.4.1 Application

Raw materials in this category shall be derived from animals of New Zealand origin where, in the light of current information, the animal disease status, the agricultural chemical usage and environmental hazards are recognised. The likelihood of harm resulting from these conditions is managed through established procedures.

2.4.2 Requirement for treatment

Medium risk raw materials shall be treated to minimise direct or indirect risk to animals or people of disease or substances that could result in harm.

2.4.2.1 Rendering

The following medium risk raw materials shall be thermally treated, refer to IS7: Section 4, in premises licensed as a byproduct premises unless they are otherwise subjected to an alternative approved treatment:

(i) diseased tissues from slaughtered or killed animals,

(ii) any material derived from animals slaughtered in any premises licensed or approved for the slaughter of animals intended to produce thermally processed byproducts,

(iii) material that is derived from animals slaughtered or killed for disease eradication purposes shall be thermally processed unless otherwise specified.

(iv) mammals and birds that may have died in the field and are not otherwise burnt or buried.

(v) tissues from any animal containing residues of animal remedies, agricultural compounds or natural substances that may result in harm, including shellfish affected by marine biotoxins, except where any particular residue or toxin is

thermally stable at the processing parameters set out in the section on thermal processing or alternative methods are available to reduce the hazard of concern.

2.4.2.2 Alternative treatments

Condemned tissues from animals that have been slaughtered or killed or recovered from the field, may be treated by approved processes to recover extracts or substances intended for pharmaceutical or biological purposes.

2.5 High Risk Materials

High risk materials shall be handled and treated according to specifications laid down by the D-G. The specifications may be designed to suit the particular case and may not necessarily apply to any similar situation.

2.6 Imported Raw Materials

2.6.1 Raw materials that are legally imported into New Zealand, and materials derived from imported live animals that are subsequently slaughtered, may be used in the same manner as raw materials of New Zealand origin.

2.6.2 The identity and origin of byproducts produced from imported raw materials shall be maintained throughout all processing.

2.6.3 Re-export of imported byproducts shall comply with the requirements of any importing country, see IS 7: Section 9, and the Overseas Assurances Programme and OMAR.

3. Protection of Food

Scope

This section relates to all raw materials and processed byproducts from the point of their harvesting, handling, processing, transport or storage in any licensed or approved premises or other facility in order that byproducts are prevented from entering the food chain.

3.1 Outcome

Byproducts shall, at all times, be clearly identified to indicate they are not intended for human consumption and, until they have been suitably processed and/or packaged, shall be kept separate from the processing, packing and handling of food.

3.2 General Principles

3.2.1 Inventories

3.2.1.1 All premises licensed or approved by MAF Food to process byproducts shall implement a verifiable inventory control system for the receiving, processing and shipment of all byproducts.

3.2.1.2 All records of inwards raw materials and byproducts received and byproducts produced shall be maintained.

3.2.2 Separation

3.2.2.1 The processing of any byproduct shall conform to the conditions of licensing/approval as specified by MAF Food for the premises.

3.2.2.2 The procedures for separating products from byproducts in rooms where edible product is processed shall conform to the requirements of IS 2, IAS2, IAIS 001 and IS 3, IAS 3, IAIS 003 where appropriate.

3.2.3 Staining or denaturing

3.2.3.1 Application

This applies to raw materials obtained from farmed deer, game or stock intended to be used for byproducts and denaturing includes staining.

3.2.3.2 Denaturing of raw materials

Unless otherwise exempt, any carcass or offal derived from farmed deer, game or stock that has been condemned according to any criteria relating to the inspection, handling, processing or packing of products shall be denatured using one of the following methods:

- Hashing/hogging: when condemned material is transported off-site the material is to have the character and appearance of inedible material otherwise one of the agents described below must be added.
- A green ink formulated according to requirements set out in Manual 15, Chemicals.
- Crude carbolic acid.

- Cresylic disinfectant.

3.2.3.3 Exemptions to denaturing of raw materials

Medium risk raw material that conform to the following criteria do not need to be denatured:

(a) they are derived from slaughtered or killed animals intended for food and the material is physically confined, and secured, on the same premises at all times from the point of collection to the thermal process.

Such material is normally chopped (hogging/hashing) so that the material no longer has the appearance of edible product prior to thermal processing. This is regarded as denaturing.

(b) they are derived from field sources, i.e. other than slaughtered or killed animals, and is transported directly to the thermal processing premises. During transport the material shall be physically confined so that it does not contaminate the environment and is inaccessible by vermin.

(c) they are derived from animals slaughtered at a premises which has been approved for the slaughtering of animals and rendering of medium risk raw material.

(d) they are raw material derived from seafood or poultry.

3.2.3.4 Raw material intended as pet food

(a) Carcasses or offal intended as pet food, including both minimal risk and medium risk raw material, shall be stained black unless they are:

- packaged and marked with a broad red band and labelled "Inedible Not for Human Consumption" at the source premises for transfer between licensed premises for further manufacture, or
- sealed with an approved seal in leak proof bulk bins labelled "Inedible Not for Human Consumption" for transfer between licensed premises for further manufacture, or
- marked with a stamp in black letters not less than 19mm high the words “Pet Food” and the official number of the source premises. Carcasses shall be marked in several places and all cuts after deboning and offal shall bear a similar mark.

(b) Pet food may be stained black using either stains formulated according to Manual 15, Chemicals, or finely ground charcoal.

3.2.4 Labelling of packaged byproducts

This section applies to byproducts intended for use as as pet food, pharmaceutical or biological purposes and are packaged in a similar manner to food

3.2.4.1 Packaged byproducts shall be clearly labelled to indicate that they are not intended for human consumption.

3.2.4.2 (a) The label attached to packaged byproducts shall conform to the description of the byproduct which appears on any required certificate.

(b) In the case of fish byproduct, the label shall include the scientific name of the species of fish except in the case of fish meal, fish oil and stickliquor where a description of the meal/oil type will be sufficient.

3.2.4.3 Minimal risk raw materials shall be packaged and labelled at the source premises.

(a) Packaging and labelling shall conform to any specific requirements for the type of byproduct, e.g. pet food, pharmaceutical raw material etc.

(b) Edible product packed for export which is subsequently designated pet food shall be labelled according the requirements in this section.

(c) Packaging and labelling shall conform, where necessary, to any importing country requirement, see the OMAR.

4. Processing Raw Materials

Scope

This section applies to the further processing of all classes of raw materials and relates to protection from re-contamination, adequacy of preservation and the minimising of hazards in medium risk raw materials.

4.1 Outcome

Further processed raw materials shall be adequately preserved, protected from re-contamination and hazards of concern shall be minimized.

4.2 General Principles

4.2.1 The further processing of raw materials shall be documented by the processor.

The principles in IS 8 are recommended as a guide to documentation.

Note: The Meat Regulations 1969, R261, requires all proprietors of approved byproduct works to keep records, including the nature and origin of the raw materials.

4.2.2 Further processed byproducts shall be stable under the intended conditions of storage and transportation.

4.2.3 During processing, handling and storing further processed byproducts shall be protected from re-contamination by unprocessed raw materials, under processed byproducts and contamination from other environmental sources. Procedures for minimising post-processing contamination shall conform to the requirements in IS 3, IAS 3 or IAIS 003, IAIS 006 as appropriate.

4.2.4 Unless otherwise permitted, all medium risk raw material shall be subjected to a thermal process in a premises licensed for the purpose. The thermal processes shall, at a minimum, render pathogenic vegetative microorganisms and organic substances innocuous.

4.2.5 Byproducts derived from medium risk raw materials that contain articles or substances which are stable under the intended thermal process, and are likely to cause direct or indirect harm to animals or people, shall be subjected to an appropriate laboratory analysis to determine the residue levels of the article or substance.

4.3 Preservation of Processed Byproducts

4.3.1 Meals

4.3.1.1 Meals shall be dried to the extent that they will not deteriorate under the conditions of storage.

The moisture content should be 10% or less.

4.3.1.2 Additives such as antioxidants and organic acid microbial suppressants shall be of an appropriate quality and conform to the following requirements:

(i) those outlined in Manual 15 Chemicals, in respect of additives and other processing aids.

(ii) any limitations on the use of specific additives, or levels of use of any additive, generally accepted for the intended use of meal or imposed by an importing country, see the OMAR.

4.3.2 Tallow and fish oil

4.3.2.1 Antioxidants of an appropriate quality may be added to tallow to minimise oxidative rancidity, see Manual 15, Chemicals.

4.3.2.2 Where antioxidants are used they shall conform to any limitations on their generally accepted use. Refer also to the OMAR.

4.4 Thermal Processing

4.4.1 Application

This section applies to medium risk raw materials where thermal treatment will minimise hazards of concern.

4.4.2 Minimising vegetative microorganisms

4.4.2.1 Except for medium risk material derived from seafood, all thermal treatments shall, at a minimum, eliminate vegetative microorganisms and reach a temperature of not less than 90°C for not less than 10 minutes at all points in the raw material.

4.4.2.2 Seafood shall be subjected to a thermal process that is adequate to minimise the hazard of concern. The processor shall determine and document an adequate thermal process.

When determining the minimum product temperature, the processor should take into account the particle size and the method of heat transfer throughout the material, i.e. convection or conduction, and assess the temperature based on the worst case scenario.

4.4.2.3 Notwithstanding section 4.4.2.1, blood meal may be produced in a ring drier, vertical flash drier or equivalent drying system provided it can be validated that the system achieves the following parameters:

(i) coagulation must involve heating to 88-92 °C for 5-10 seconds or longer,

(ii) during any dwell time before drying, but not exceeding 35 minutes, the coagulated blood must be kept at a temperature of 60-65 °C or hotter,

(iii) coagulated blood must be fed into the drier where the combustion temperature is not less than 350 °C and the exit air temperature is not less than 90 °C.

This process may not satisfy overseas market access requirements, refer to OMAR.

4.4.3 Minimising bacterial spores

Where it is a requirement that bacterial spores are killed, see OMAR, the thermal treatment shall deliver the equivalent of moist heat at 115°C for 60 minutes throughout all points in the raw material.

4.4.4 Microbiological surveillance

Thermally processed byproducts intended for use as animal food shall be subjected to a microbiological surveillance programme to determine the effectiveness of both the thermal treatment and the prevention of contamination.

The monitoring programme should be appropriate to the nature of the operation, the effectiveness of the treatment and risks of recontamination. IS 8: Appendix A and E may be useful in this regard.

4.5 Minimising Chemical or Physical Hazards

4.5.1 Byproducts derived from medium risk raw materials shall not contain chemical or physical agents that may result in harm when used for the intended purpose.

4.5.2 Any dead animal or killed animal harvested from a pest eradication area where any poison has been used, shall not be used for any byproduct unless the poison can be detoxified by the approved thermal process and the byproduct is thermally processed.

4.5.3 Any seafood containing natural toxic substances shall not be used for any byproduct unless the substance can be detoxified by the approved thermal process and the byproduct is thermally processed.

4.5.4 Any raw material derived from scraps and wastes from the processing of products or byproducts where chemical agents have been used shall not be used for any byproduct unless the chemical agent is/or can be rendered harmless.

4.5.5 Any raw material that is used in the formulation of feed for animals shall not contain chemicals that will harm animals, irrespective of whether these chemicals were added during any previous processing or were inherent in the raw material.

5. Animal Food

Scope

This section relates to the preparation of byproducts that are suitable for inclusion as animal food and the specific requirements for byproducts in relation to pet food.

5.1 Outcome

Animal food shall not result in disease or harm when fed to animals.

5.2 General Principles

5.2.1 Procurement of animals

5.2.1.1 The procurement of animals intended for use as pet food shall comply with requirements of IS 7: Section 2.3

5.2.1.2 Premises that are licensed to slaughter animals intended for use as animal food shall comply with all legal requirements to ensure the welfare of animals, see Section 1.3.1.

5.2.1.3 Every person shall comply with any legal requirement relating to the feeding of any material to animals.

5.2.2 Thermally processed byproducts

Any byproduct that has received an appropriate thermal treatment may be used as animal food subject to any other conditions or requirements specified by the Director-General that relate to any type of byproduct or any species of animal.

5.2.3 Chemical or physical agents

5.2.3.1 Byproducts that are intended as animal food shall:

- not contain any chemical or physical agent that is harmful to the species of concern.
- not be formulated with any ration or material that contains chemicals or residues that will harm the intended species.
- comply with any requirement relating to the formulation or composition of animal feeds. Refer also to the Stock Foods Act 1964 until superseded by the Agricultural Compounds and Veterinary Medicines Act 1998.

5.3 Pet Food

Raw materials intended for use as pet food shall include raw materials from animals.

5.3.1 Compliance with regulations

5.3.1.1 The Licensee shall comply with the requirements of Part XIII of the Meat Regulations 1969 when preparing any pet food for sale. In particular:

Summary of regulations:

- Pet food shall be prepared in licensed or approved premises.
- prohibited flesh and inedible raw material shall not be used for pet food nor stored or possessed for this purpose.
- prohibited flesh may be exempted by the Director-General (exempted flesh) if the manner in which it is processed will not result in direct or indirect harm to animals or people.
- raw material intended for pet food shall not enter the food chain, it shall be transported in secure containers that are leak proof, labelled not for human consumption and protected from deterioration.
- in premises where food is sold, all equipment used for the processing of pet food shall be washed and sterilised before being used for the processing of food.
- raw pet food shall be physically separated from products that are intended for human consumption.
- watertight packaged and appropriately labelled pet food may be stored or sold in the same area as food.
- records shall be kept which, as a minimum, must disclose the origin of all raw materials used for the preparation of pet food.

5.3.1.2 Every person should comply with all legal requirements relating to the feeding of any material to animals. The following requirements may be used as a guide to processing:

- Offals from ruminants and pigs should be boiled for 30 minutes before being fed to dogs.
- It is recommended that all prepared pet food intended for feeding dogs, derived in whole or in part from ruminant animals, is thermally treated throughout to a minimum of 72°C.
- It is recommended that the carcass meat from sheep and goats intended for feeding to dogs is frozen to a temperature of -10°C or colder for a minimum of 7 days before being offered for sale.

5.3.2 Sources of raw material

5.3.2.1 Pet food may be prepared from minimal risk raw materials and/or rendered byproducts.

5.3.2.2 Any food that is downgraded to pet food shall not contain any biological, chemical or physical agent that may be harmful to the animal which it is intended to feed.

5.3.2.3 *Slaughtered or killed mammals or birds*

Slaughtered or killed animals shall

(a) comply with the criteria for minimal risk raw materials, see IS 7: Section 2.3,

(b) comply with the requirements for staining or labelling if transferred to approved pet food processing premises, refer to IS 7: Section 3.2.3.

(c) shall not deteriorate before being delivered to the pet food processing premises. Stock or farmed deer humanely killed in the field should be delivered to a licensed pet food premises within 6 hours of killing.

5.3.3 Processed pet food

5.3.3.1 Byproducts that are further processed for pet food shall be processed according to good manufacturing practice for the type of pet food:

5.3.3.2 Canned pet food shall be processed according to good manufacturing practices for low acid canned foods.

5.3.3.3 Moist, semi-moist and dry pet foods shall be processed according to good manufacturing practices for the type of processing.

5.3.3.4 Additives used in the preparation of formulated pet foods shall not be harmful to the intended species of animal:

(a) the amount used should be sufficient only to accomplish the desired technical effect.

(b) the processor shall be accountable for the formulation of any processed pet food and shall maintain evidence of compliance with the intended formulation for all production.

(c) the label of any formulated pet food shall comply with any requirement for labelling. Refer also to Manual 12 for importing country requirements.

> Processors are reminded that they may have obligations under the Stock Foods Act 1946, until superseded by the Agricultural Compounds and Veterinary Medicines Act 1998, in relation to composition, additives and labelling and are recommended to apply the principles of quality assurance outlined in IS 8 in this regard.

5.3.3.5 All pet food shall be preserved.

(a) processed byproducts shall not deteriorate under the intended storage conditions.

(b) raw unprocessed byproducts shall be refrigerated or otherwise stabilised during storage. They shall be transported under such conditions that deterioration does not occur.

5.3.4 Production records

Records of the quantities of production and distribution of all pet food shall be maintained by all processors for all production. This includes the production of both raw and processed pet food

6. Raw Material for Medicinal Use

Scope

This section relates to raw materials used to prepare crude materials or active extracts which are intended to have a direct effect on the health of animals or people.

6.1 Outcome

Raw materials intended for medicinal use shall be free from disease and substances that may result in direct or indirect harm to animals or people.

6.2 General Principles

6.2.1 Raw materials that are not required to be thermally processed may be used as raw materials for further processing to produce substances used for medicinal purposes, see IS 7: Section 2.3.

6.2.2 Raw materials shall be handled, prepared, packaged and labelled at the source premises in compliance with the requirements of IS 7: Section 3.

6.2.3 Raw materials shall conform to any criteria that is deemed necessary for the type of byproduct and its intended use.

6.2.4 Raw materials intended for medicinal use shall conform to any assurance for which the Government is accountable.

6.2.5 The Licensee of the source premises shall maintain records of all production and distribution of byproducts intended for medicinal use.

6.3.6 The further processing of byproducts for medicinal use is covered by the provisions of the Medicines Act 1981.

7. Raw Material for Industrial Use

Scope

This section relates to raw materials used to prepare byproducts for industrial use and will include fertilisers, biological materials (not intended for medicinal use), bioprocessing to obtain active substances for industrial use and the re conversion of byproduct to food.

7.1 Outcome

Raw materials intended for industrial use shall be free from disease and substances that may result in direct or indirect harm to animals or people.

7.2 General Principles

7.2.1 Raw materials conforming to the requirements of IS 7: Section 2 may be used to prepare byproducts intended for industrial purposes.

7.2.2 Raw materials shall be handled, prepared, packaged and labelled at the source premises in compliance with the requirements of IS 7: Section 3.

7.2.3 Premises processing byproducts for industrial purposes shall comply with any legal requirement relating to the premises or to the processing of the type of industrial substance.

(a) Premises intending to export industrial substances referred to in IS 7: Section 9 shall be licensed premises or, where appropriate, approved by MAF Food.

(b) Premises intending to reconvert byproducts into food, other than tallow, as outlined in IS 7: Section 8 shall be registered according to the provisions of the Health (Registration of Premises) Regulations 1966. Premises intending to export reconverted byproduct referred to in IS 7: Section 9 shall be a licensed premises or, where appropriate, approved by MAF Food.

7.2.4 Raw materials shall conform to any criteria that is deemed necessary for the type of byproduct and its intended use.

7.2.5 Raw materials intended for industrial use shall conform to any assurance for which the Government is accountable.

7.2.6 The Licensee of the source premises shall maintain records of all production and distribution of byproducts intended for industrial use, including byproducts intended for re-conversion to food.

8. Re-converting Byproducts to Food

Scope

This section relates to the re-conversion of byproducts to any food (for human consumption) for which there is a description of the food in legislation relating to standards for food.

8.1 Outcome

Food which has been processed from byproducts shall not have any adverse effect in relation to animal or public health.

8.2 General Principles

8.2.1 Any raw material that is to be further processed into an article intended for human consumption shall be processed only by a method which satisfies the Director-General that the process gives it such biological, chemical and physical characteristics that it can have no significant effect in relation to public or animal health. An exemption provided by the D-G is required in each case.

8.2.2 Premises further processing byproducts into food shall be registered according to the provisions of the Health (Registration of Premises) Regulations 1966. Premises intending to export reconverted byproduct shall be licensed or, where appropriate, approved by MAF Food.

8.2.3 The processes shall conform to good manufacturing practice for the type of food and shall satisfy the Director-General of Health that the process carried out conforms to acceptable standards for the production and to criteria for the food as detailed in the appropriate legislation. Products intended for export shall also comply with any requirement of the importing country, see OMAR.

8.2.4 The Licensee or manager of the approved premises shall maintain records of the source of all raw materials.

9. Export of Byproducts

Scope

This section relates to any byproduct for which an export certificate attesting to the country of origin, the animal disease status, the quality of the raw material, or any process criteria, is required by any importing country.

9.1 Outcome

Byproducts shall conform to any importing country certification requirement.

9.2 General Principles

9.2.1 Any byproduct that is intended for export shall conform to the requirements of the intended market, see OMAR. This shall include byproducts that have been imported into New Zealand and intended for re-export whether or not these have been further processed in New Zealand.

9.2.2 The requirements of any importing country shall be verified in the source documents and the production records for any product before certification can be given.

9.2.3 Where any byproduct is transferred between licensed or approved premises an Eligibility Document, in compliance with the Official Assurances Programme, shall be raised.