Draft Code of Practice:
Rendering
Part 2: Good Operating Practice
## Table of Contents

Prelims ........................................................................................................................................ 2
Disclaimer .................................................................................................................................... 6
Review of Code of Practice ....................................................................................................... 6
Amendment Record .................................................................................................................. 7

1 **Introduction** ....................................................................................................................... 8
   1.1 Purpose and Scope .......................................................................................................... 8
   1.2 Layout of Part 2 ............................................................................................................ 9
   1.3 Documentation of GOP .............................................................................................. 11

2 **Glossary of Terms** ............................................................................................................. 13

3 Design, Construction and Maintenance of Buildings, Facilities and Equipment .......... 21
   3.1 Purpose and Scope ........................................................................................................ 21
   3.2 Sources of Hazards ...................................................................................................... 21
   3.3 Mandatory Requirements .......................................................................................... 22
   3.4 Procedures (For Compliance) ..................................................................................... 25
   3.5 Monitoring ................................................................................................................... 31
   3.6 Records ....................................................................................................................... 32

4 **Water Used for Processing** ............................................................................................... 33
   4.1 Purpose and Scope ........................................................................................................ 33
   4.2 Sources of Hazards ...................................................................................................... 34
   4.3 Mandatory Requirements .......................................................................................... 34
   4.4 Procedures (For Compliance) ..................................................................................... 41
   4.5 Summary of Mandatory Requirements and Procedures ............................................ 43
   4.6 Monitoring ................................................................................................................... 44
   4.7 Records ....................................................................................................................... 44

5 **Cleaning and Sanitation** ................................................................................................... 45
   5.1 Purpose and Scope ........................................................................................................ 45
   5.2 Sources of Hazards ...................................................................................................... 45
   5.3 Mandatory Requirements .......................................................................................... 45
   5.4 Procedures (For Compliance) ..................................................................................... 46
   5.5 Monitoring ................................................................................................................... 48
5.6 Records ........................................................................................................ 48

6 Personnel Competency, Health and Hygiene ............................................ 49
  6.1 Purpose and Scope ................................................................................ 49
  6.2 Sources of Hazards ............................................................................ 49
  6.3 Mandatory requirements .................................................................... 50
  6.4 Procedures (For Compliance) ................................................................. 52
  6.5 Monitoring ............................................................................................ 59
  6.6 Records ................................................................................................ 59

7 Control of Chemicals ............................................................................. 60
  7.1 Purpose and Scope .............................................................................. 60
  7.2 Sources of Hazards ............................................................................. 61
  7.3 Mandatory Requirements ................................................................... 61
  7.4 Procedures (For Compliance) ................................................................. 62
  7.5 Monitoring ........................................................................................... 63
  7.6 Records ................................................................................................ 64

8 Pest Control ............................................................................................ 65
  8.1 Purpose and Scope .............................................................................. 65
  8.2 Sources of Hazards ............................................................................. 65
  8.3 Mandatory Requirements ................................................................... 65
  8.4 Procedures (For Compliance) ................................................................. 66
  8.5 Records ................................................................................................ 70

9 Calibration ............................................................................................... 71
  9.1 Purpose and Scope .............................................................................. 71
  9.2 Mandatory Requirements ................................................................... 71
  9.3 Procedures (For Compliance) ................................................................. 72
  9.4 Monitoring ........................................................................................... 74
  9.5 Records ................................................................................................ 74

10 Categorisation and Eligibility of Raw Material ....................................... 75
  10.1 Purpose and Scope ............................................................................ 75
  10.2 Mandatory Requirements .................................................................. 75

11 Process Control – General Requirements ............................................. 79
  11.1 Purpose and Scope ............................................................................ 79
  11.2 Mandatory Requirements .................................................................. 79
  11.3 Procedures (For Compliance) ................................................................. 79
  11.4 Monitoring .......................................................................................... 80
  11.5 Records ................................................................................................ 80

12 Process Control – Raw Material Collection, Transport and Handling ... 81
  12.1 Purpose and Scope ............................................................................ 81
12.2 Mandatory Requirements ..............................................................................81
12.3 Procedures (For Compliance) .......................................................................85
12.4 Monitoring ......................................................................................................86
12.5 Records .........................................................................................................86
13 Process Control – Thermal Processing ....................................................87
13.1 Purpose and Scope ........................................................................................87
13.2 Mandatory Requirements ..............................................................................87
13.3 Procedures (For Compliance) .......................................................................89
13.4 Monitoring ......................................................................................................91
13.5 Records .........................................................................................................91
14 Process Control – Post Thermal Process Handling .................................92
14.1 Purpose and Scope ........................................................................................92
14.2 Mandatory Requirements ..............................................................................92
14.3 Procedures (For Compliance) .......................................................................93
14.4 Monitoring ......................................................................................................95
14.5 Records .........................................................................................................95
15 Ruminant Protein Controls ........................................................................96
15.1 Purpose and Scope ........................................................................................96
15.2 Mandatory Requirements – Animal Products Act .........................................96
15.3 Biosecurity (Ruminant Protein) Regulations 1999 Definitions ......................97
15.4 Summary of Mandatory Requirements and Procedures ...............................98
15.5 Procedures (For Compliance) .......................................................................99
15.6 Records .......................................................................................................100
16 Packaging and Labelling ............................................................................101
16.1 Purpose and Scope ........................................................................................101
16.2 Mandatory Requirements ..............................................................................101
16.3 Procedures (For Compliance) .....................................................................104
16.4 Monitoring .....................................................................................................105
16.5 Records .......................................................................................................105
17 Document Control and Record Keeping ................................................ 106
17.1 Purpose and Scope .......................................................................................106
17.2 Mandatory Requirements .............................................................................106
17.3 Procedures (For Compliance) .....................................................................109
17.4 Monitoring .....................................................................................................111
17.5 Records .......................................................................................................111
18 Traceability and Inventory Control ........................................................... 112
18.1 Purpose and Scope .......................................................................................112
18.2 Mandatory Requirements .............................................................................112
18.3 Procedures (For Compliance) ................................................................. 113
18.4 Monitoring .......................................................................................... 113
18.5 Records ............................................................................................... 113
19 Handling of Non-complying Products, and Recall .............................. 114
  19.1 Purpose and Scope .............................................................................. 114
  19.2 Mandatory Requirements ................................................................. 114
  19.3 Procedures (For Compliance) .............................................................. 115
  19.4 Monitoring ........................................................................................ 116
  19.5 Records ............................................................................................ 116
20 Operator Verification and Other Operational Requirements ............. 117
  20.1 Purpose and Scope ............................................................................. 117
  20.2 Mandatory Requirements ................................................................. 117
  20.3 Procedures (For Compliance) .............................................................. 121
  20.4 Monitoring ........................................................................................ 126
  20.5 Records ............................................................................................ 126
Disclaimer

IMPORTANT DISCLAIMER

Every effort has been made to ensure the information in this report is accurate.

NZFSA does not accept any responsibility or liability whatsoever for any error of fact, omission, interpretation or opinion that may be present, however it may have occurred.

Website

A copy of this document can be found at: http://www.nzfsa.govt.nz/animalproducts/index.htm

Review of Code of Practice

This code of practice will be reviewed, as necessary, by the New Zealand Food Safety Authority. Suggestions for alterations, deletions or additions to this code of practice, should be sent, together with reasons for the change, any relevant data and contact details of the person making the suggestion, to:

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Amendment Record

It is important that this publication is kept up-to-date by the prompt incorporation of amendments.

To update this publication when you receive an amendment, remove the appropriate outdated pages, destroy them, and replace them with the pages from the new issue. Complete instructions will be given on the covering letter accompanying the amendment. File the covering letter at the back of the publication and sign off and date this page.

If you have any queries, please ask your local verifier.

<table>
<thead>
<tr>
<th>Amendment No.</th>
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1 Introduction

1.1 Purpose and Scope

This code of practice (COP) has been developed by the New Zealand Food Safety Authority (NZFSA), in consultation with an industry working group, to assist rendering operators meet the requirements of the Animal Products Act 1999 and produce products that are fit for their intended purpose. It applies to businesses involved in the production of rendered animal products intended for animal consumption, such as meat and bone meal, dried blood, fish meal, poultry meal, feather meal, tallow, fish oil and poultry fat. It covers the:

- collection of animal material for rendering except for collection activities performed by human consumption operators, as this will be covered under the relevant human consumption Code of Practice; and

- rendering, drying, storage and dispatch of products.

Part 2 covers Good Operating Practice (GOP). It provides guidance on hygienic practices and process control procedures. Compliance with these GOP measures will assist operators meet the requirements of the Animal Products Act 1999, particularly the current version of the Animal Products (Specifications for Products Intended for Animal Consumption) Notice.

GOP is the foundation for Hazard Analysis and Critical Control Point (HACCP) and of risk management programmes (RMPs). The HACCP approach applied in Part 3 of this COP is based on the expectation that GOP is effectively being implemented prior to the application of HACCP principles.
1.2 Layout of Part 2

Part 2 is divided into several GOP programmes that cover hygiene and sanitation, process control, and other RMP requirements. The programmes covering hygiene and sanitation (e.g. pest control, design and construction), and RMP requirements (e.g. product recall) are expected to apply to the rendering of all types of animal products. However, the process control procedures given in Part 2 only cover the collection, transport and receipt of raw materials; and the rendering, drying, storage and dispatch of meat & bone meal, dried blood, fish meal, poultry meal, feather meal, tallow, fish oil and poultry fat.

Other types of products or processes that may occur in rendering operators such as bile evaporation, may not be adequately covered in this COP. If such is the case, the operator will need to write their own process control procedures for the particular product or process.

The GOP programmes are laid out with the following subheadings:

**Purpose and Scope**

This describes the purpose of the GOP programme and its scope of application.

**Sources of Hazards**

This section identifies the sources of hazards that are controlled under the particular GOP programme, and it gives examples of hazards associated with each source. It does not apply to those GOP programmes that do not directly address a particular source of hazard (e.g. inventory control, calibration).

**Mandatory Requirements**

These requirements are mandated by legislation, and must be met or complied with by the operator. The mandatory requirements are not always directly quoted from legislation. Some of them have been reworded to make them easier to understand. The specific legislation from which each requirement has been derived is cited to assist those who may wish to read the actual piece of legislation referred to. Actual legislation will always take precedence and it is the operator’s responsibility to check for changes to legislation.
The abbreviations used for legislation cited in this document are:

AP Reg – the current version of the Animal Product Regulations

RMP Spec – the current version of the Animal Products (Risk Management Programme Specifications) Notice

AC Spec – the current version of the Animal Products (Specifications for Products Intended for Animal Consumption) Notice.

Procedures (For Compliance)

The procedures given are the accepted or industry agreed means of achieving or complying with the mandated requirements. These procedures cover control, monitoring, corrective action, and verification. The operator must comply with the procedures that are applicable to their product and process.

There may be cases when the operator may decide to use an alternative process, procedure or parameter that is not provided for in this COP (e.g. when new technology becomes available). The operator must be able to demonstrate the effectiveness of any alternative to consistently meet all relevant regulatory requirements and produce products that are fit for their intended purpose. Confirmation of the effectiveness of any alternative process, procedure or parameter may involve the collection and analysis of evidence by the operator (e.g. data from testing or trials, published scientific information, report from an expert). A protocol for the collection of data should be prepared by the operator as discussed in the Risk Management Programme Manual.

This COP will be reviewed, as necessary, and the inclusion of any alternative process, procedure or parameter will be considered as part of this review.

It is important to note that some mandatory requirements (e.g. those that are specific and clear in their intent) are not repeated or expanded further in relevant sections under Procedures. Operators must ensure that they read and comply with all requirements given under Mandatory Requirements and Procedures that are relevant to their operation.
**Guidance**

Guidance material is presented in a box under relevant requirements in the Procedures section of each GOP programme. It provides explanatory information and options for achieving a particular outcome or requirement. Operators may use alternative methods or measures to those set out in the guidance material provided they do not in any way compromise GOP and the achievement of regulatory requirements. Justification is not needed when deviating from guidance.

**Records**

This section gives the list of records that must be kept by the operator.

1.3 **Documentation of GOP**

1.3.1 **Legal requirement**

The operator must document sufficient procedures to ensure that GOP is applied. These procedures must cover:

- the control measures to be used to control hazards and other risk factors;
- any parameters to be met;
- any monitoring procedures that are to be carried out; and
- any corrective action procedures that are to be applied in the event of loss of control; including restoration of control, identification and disposition of affected animal material or animal product, and any measures to be taken to prevent reoccurrence of the loss of control.
1.3.2 Contents of supporting systems

When documenting supporting systems, the operator should ensure that they cover the areas listed below:

- Purpose and scope
- Authorities and responsibilities
- Procedures (covering control measures, monitoring, corrective action and operator verification)
- Records
- References to other relevant documents, as applicable.
2 Glossary of Terms

Note: any term or expression that is defined in the APA 1999, Animal Products (Ancillary and Transitional Provisions) Act 1999, or subordinate legislation and used, but not defined here, has the same meaning as in those Acts or regulations. In all other cases terms will have the same meaning as that given in the Concise Oxford Dictionary.

Act means the Animal Products Act 1999 unless otherwise stated.

ACVM Act means the Agricultural Compounds and Veterinary Medicines Act 1997.

agricultural compound has the same meaning as in section 2 of the Agricultural Compounds and Veterinary Medicines Act 1997.

amenities includes toilets, wash rooms, locker rooms, change rooms, lunch/smoke rooms and cafeterias.

animal means any member of the animal kingdom, and includes,

a. any mammal, bird, finfish, shellfish, reptile, amphibian, insect or invertebrate;

b. any other creature or entity that is declared by the Minister by notice in the Gazette to be an animal for the purposes of this Act; but does not include a human being.

AC Specs means the current version of the Animal Products (Specifications for Products Intended for Animal Consumption) Notice.

animal material means any live or dead animal, or any tissue or other material taken or derived from an animal.

animal product, or product means any animal material that has been processed (other than simply transported or stored in such a way as not to involve any alteration to its nature) for the purpose, or ultimate purpose, of consumption or other use by humans or animals.
animal treatment and exposure status means the status of the animal in relation to its treatment and exposure to veterinary medicines or other chemical substances that may impact on the suitability of the animal material for processing or animal product fitness for intended purpose.

approved maintenance compound means any maintenance compound that is approved by the Director-General or listed in specifications made under the Act.

approved veterinary medicine means those veterinary medicines that are registered under the ACVM Act and those that are exempt from registration under the ACVM Act.

clean, when used as a verb, means to remove visible contaminants from any surface.

clean seawater means seawater that is free of excessive turbidity, colour, offensive odour, and any contaminants.

clean water means-

a. in relation to water supplied by an independent supplier (including a public or private supplier), water of a standard administered by the independent supplier under the Health Act 1956 and any regulations made under that Act; or

b. in relation to water supplied by the operator solely for the use of the operator (such as bore water, rainwater, surface water, or ground water), water that complies with the requirements in Schedule 1.

contaminant means any substance or thing which:

a. is undesirable, potentially harmful, or unexpected in a particular product or process; and

b. is or may be present in, or in contact with, animal material or animal product.

denatured animal material or product means animal material or product that is clearly identified as not suitable for human consumption by-

a. being hashed or hogged so that it is not recognisable as suitable for human consumption; or
b. having added ink or stain, which is an approved maintenance compound for that purpose, intimately mixed throughout the animal material or product; or

c. had crude carbolic acid intimately mixed throughout the animal material or product; or

d. had cresylic disinfectant intimately mixed throughout the animal material or product; or

e. been treated in some other way that has been approved in writing by the Director-General as resulting in denaturing.

direct supervision in relation to an function, operation or activity means supervising any function, operation or activity while in sufficiently close physical proximity to ensure that any relevant specifications are met.

Department of Conservation Pesticide Summary means a document produced by the Department of Conservation that specifies the poisons used in a particular area for the eradication of pests.

equipment includes-

a. the whole or any part of any utensil, machine, fitting, device, instrument, stamp, apparatus, table, or article, that is used or available for use in or for the preparing, marking, processing, packing, storing, carrying, or handling of any animal material, animal product, ingredient, additive, or processing aid; and

b. any utensil or machine used or capable of being used in the cleaning of any equipment or facilities.

facilities includes amenities, storage areas, and processing areas.

hazard means a biological, chemical, or physical agent that –

a. is in or has the potential to be in animal material or product; or

b. is or has the potential to be a condition of animal material or product; and

c. leads or could lead to an adverse health effect on humans or animals.

high risk raw material means a type of animal material or product that is-

a. declared by the Director-General to contain infectious agents or substances harmful to animals; or
b. medium risk raw material or minimal risk raw material that has come into contact with any high risk raw material; or

c. animal material or product that is derived from ruminant animals imported live into New Zealand.

**human or animal consumption**, used in relation to any animal product, means that the product is intended to be eaten, or taken orally, or administered parenterally, or applied topically.

**ingredient** means any substance, including a feed additive, added to animal material or product during processing.

**fit for intended purpose**, the phrase, used in relation to any animal product, that has been processed in accordance with the requirements of a registered risk management programme under the Animal Products Act 1999, means that by reason of animal material or product having had the relevant risk factors managed and meeting any relevant animal product standards and associated specifications, the product is suitable for the purpose for which the product is specifically stated or could reasonably be presumed to be intended having regard to its nature, packaging, and identification.

**label** includes any wording, tag, brand, symbol, picture, or other descriptive matter, written, printed, stencilled, marked, embossed, impressed on, appearing on, attached to, or enclosed within any animal material or product.

**medium risk raw material** means, animal material or product that is-

a. derived from slaughtered or killed animals that are suspected to be diseased;

b. derived from animals slaughtered and killed for specific disease eradication purposes as directed by the Director-General;

c. derived from mammals and birds that have died in the field;

d. derived from homekill or recreational catch;

e. derived from animal material or product from any animal containing residues of agricultural compounds or veterinary medicines, toxic substances or natural substances, including shellfish affected by marine biotoxins, which may result in harm to the consumer, except where any particular residue or toxic substance can be
processed or treated so that they can be reduced to a level that is unlikely to result in harm to the consumer;

f. derived from animal material or product which is not fit for animal consumption without further processing or treatment;

g. any other material declared to be medium risk raw material by the Director-General;

h. any minimal risk raw material that has come into contact with any medium risk raw material.

**minimal risk raw material** means any animal material or product that is not of a kind listed above [in either high or medium risk raw material] and which does not result in any direct or indirect harm to animals on consumption.

**NZFSA** means the New Zealand Food Safety Authority.

**operator**, in relation to an animal product business, means the owner or other person in control of the business.

**packaging material**-

a. means any material that is associated with, and that comes into immediate contact with, animal material or product; and

b. includes rigid materials such as cartons and containers where animal material or product is filled directly into the carton or container; and

c. includes any other material contained with, in, or attached to, the animal material or product (such as labels, satay sticks, and heat sensors).

**pet** means cat or dog.

**pet food** means animal product intended for consumption by pets and petfood has the same meaning.

**place** includes any building, conveyance, craft, fishing vessel, or structure; and includes any land, water, or other area where animals or animal material are produced or may be present.
poison means in relation to vertebrates a vertebrate toxic agent that is registered under the ACVM Act for use against vertebrate animals.

post-mortem examiner means a person, responsible for carrying out the post mortem examination functions and activities under a risk management programme, in accordance with the AC Specs.

poultry includes chicken, turkeys, ducks, pheasants, quail, guinea fowl, geese, partridges, pigeons and other game birds.

process includes kill, slaughter, dress, cut, extract, manufacture, pack, preserve, transport, and store.

protective clothing are garments worn as outer wear while any person is present in a processing area and includes, but is not restricted to, overalls, aprons, leggings, gloves and footwear.

rendering means the breaking down of animal tissues into the constituent fat and protein elements, whether by the application of heat and pressure or otherwise.

risk factors means:

a. risks from hazards to animal or human health:

b. risks from false or misleading labelling:

c. risks to the wholesomeness of animal material or product.

ruminant means an animal of the order Artiodactyla that chews cud regurgitated from its rumen, including but not limited to cattle, sheep (including lambs), deer, llamas, alpacas and goats.

ruminant protein means protein derived from the tissue of a ruminant, except dairy produce; and for this purpose ‘tissue’ includes blood.

sanitary design-
i. meets the requirements appropriate to the type of animal material or product and process, and which includes consideration of the movement of people, access, and process flow; and

ii. can be readily maintained, cleaned, sanitised, and sterilised where required, to ensure that risk factors from contaminants and pests are minimised; and

b. in relation to any equipment or access-way in any processing area, means that the equipment or access-way is designed, constructed and located so that it –

i. is easily accessible for maintenance, cleaning, operation, checking and inspection; and

ii. minimises the contact of contaminants with any animal material (other than live mammals or live birds), or animal product or other equipment; and

iii. precludes the harbouring or accumulation of any contaminants or pests.

**sanitise** means the application of an approved maintenance compound or physical agent with the intention of reducing microbial contamination to a level that will avoid the creation of a hazard.

**suitably skilled person** means a person who in the opinion of the operator is skilled in a particular activity or task through training, experience, or qualifications.

**transport** includes transport by road, rail, sea or air.

**transport operator** means any person or business that engages in the transport of animal material or product between places or premises within New Zealand and includes courier operations and subcontractors who are used intermittently.

**transportation outer** means a package other than a transportation unit, that-

a. encases any packaged or unpackaged animal material or product for the purpose of transportation; and

b. is either removed before the animal product is used or offered for retail sale, or is not taken away by the consumer of the product.
transportation unit includes vehicles, aircraft, railway wagons, ships, shipping containers, bulk bins, bulk tanks, trailers and any other form of transport used in the transport of animal material or product.

veterinary medicine has the same meaning as in section 2 of the Agricultural Compounds and Veterinary Medicines Act 1997.

waste means animal material or product that has been adjudged unsuitable or unfit for any purpose [i.e. unfit for human or animal consumption] and is waiting disposal.

water reticulation management plan means a documented programme that contains procedures for the management of the water and its reticulation within the premises or place to ensure that the appropriate quality of water is delivered at the point of use.

wholesomeness, in relation to any regulated animal product, means that the product does not contain or have attached to it, enclosed with it or in contact with it anything that is offensive, or whose presence would be unexpected or unusual in product of that description.

zoo animal means any animal that is displayed in a circus or zoological garden.
3 Design, Construction and Maintenance of Buildings, Facilities and Equipment

Amendment 0
August 2008

3.1 Purpose and Scope

To ensure that all buildings, facilities and equipment are designed, constructed, installed and operated in a manner that prevents or minimises contamination of animal products, packaging, equipment, and the processing environment.

3.2 Sources of Hazards

The sources of hazards controlled under this programme are summarised in the table below.

<table>
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<th>Source</th>
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| Facilities, equipment | Microbiological pathogens, e.g. *Salmonella*  
Chemical residues, e.g. heavy metals from equipment  
Physical hazards, e.g. metal, glass |
| Maintenance compounds (e.g. lubricating fluids) | Chemical residues |
| Environmental contaminants (e.g. dust, fumes, pollutants, sewage) | Microbiological pathogens, e.g. post thermal processing *Salmonella*, *Clostridium* spp.  
Chemical residues, e.g. agricultural chemicals |
3.3 Mandatory Requirements

3.3.1 AP Reg 10

The premises, places, facilities, equipment and essential services must be:

- designed, constructed, and located to enable suitability of the animal material to be maintained, and the fitness for intended purpose of the animal product to be achieved and maintained; and
- operated to minimise and manage the exposure of animal material or animal product or associated things (e.g. packaging, equipment, and the processing environment) to hazards and other risk factors.

3.3.2 AC Spec 9 (1)

Any material or exposed internal surface finish used in the building, manufacture, or maintenance of facilities, equipment, or internal structures of premises that may affect the suitability for processing of animal material (other than live mammals or live birds), or the fitness for intended purpose of animal product, must-

a. be impervious, non-absorbent, and free from depressions, pits, cracks, and crevices that may harbour contaminants; and

b. be easily cleaned and sanitised; and

c. be unaffected by any corrosive substance with which it is likely to come into contact, to the extent necessary to ensure that it will not harbour contaminants and not be a source of contamination; and

d. be durable, resistant to fracture, and capable of withstanding repeated exposure to normal cleaning and sanitising; and

e. in the case of surfaces (other than those used for walking or standing on during operations), be smooth and minimise the accumulation of condensation; and
f. in the case of materials lining the walls, floors, and ceilings, be of a colour that does not, having regard to the lighting arrangements and the type of processing carried out on the premises, disguise contaminants.

Where the material or exposed internal surface finish does not affect the suitability for processing of animal material (other than live mammals or live birds), or the fitness for intended purpose of animal product this listed items are not mandatory requirements.

### 3.3.3 AC Spec 9 (2)

The facilities, equipment and internal structures of premises that may affect the suitability for processing of animal material or the fitness for intended purpose of animal product must be of sanitary design.

### 3.3.4 AC Spec 10 (3)

Temperature controlled rooms and equipment must be operated within their design, capability and capacity, and must consistently deliver any temperature as required by this notice or as specified in the risk management programme (as the case may require).

### 3.3.5 AC Spec 10 (5)

Cleaning and sanitation facilities, and equipment, must be provided to ensure that the hygiene of personnel, equipment, vehicles, conveyances, and the premises or place can be maintained so that the suitability for processing of animal material and the fitness for intended purpose of animal product is not adversely affected.

### 3.3.6 AC Spec 10 (6)

Access to facilities that are sufficient for official assessors and Animal Product Officers to perform their role must be provided.
3.3.7 AC Spec 10 (7), (8)

(7) Any facilities used for the slaughter, dressing, and processing of animal material or product for animal consumption, must be physically separated from facilities where product is processed for human consumption and must be used only for the processing of animal material or product for animal consumption.

(8) Despite subclause (7) the operator may process animal material or product for human consumption and animal consumption in the same facilities where the operator has effective procedures in place to maintain separation of product intended for human consumption from that intended for animal consumption, and to prevent cross contamination or substitution between them.

3.3.8 AC Spec 11

Lighting must be of a sufficient intensity and quality to enable satisfactory performance of all operations that might affect the suitability of animal material for processing, or the fitness of animal product for its intended purpose.

3.3.9 AC Spec 19 (1)

Equipment or storage areas used to store or contain any animal, animal material or animal product that is intended for further processing, including medium risk raw material, must be clearly identified and not be a source of contamination to any other animal material or animal product.

3.3.10 AC Spec 20 (1)

Equipment or storage areas, as appropriate, used to store or contain waste must:

- be clearly identified; and
- not be a source of contamination to other animal material or product.
For the purpose of this clause waste includes animal material or product which has been assessed by an official assessor or post-mortem pet food examiner, and has been adjudged unsuitable or unfit for any purpose and is awaiting disposal.

3.4 Procedures (For Compliance)

3.4.1 Site

3.4.1.1 Premises must be located away from:

a. environmentally polluted areas and industrial activities which pose a serious threat of contaminating animal material or animal product;

b. areas subject to flooding, unless sufficient safeguards are provided;

c. areas prone to infestation of pests; and/or

d. areas where wastes, either solid or liquid, cannot be effectively removed.

3.4.1.2 Transport access ways, and areas between and around buildings, must be constructed and maintained so that they drain surface water, and minimise dust and other environmental contamination.

3.4.2 Buildings and facilities

3.4.2.1 The internal design and layout of premises must permit good hygienic practices, including protection against contamination of animal material and animal product between and during operations.

3.4.2.2 Adequate working space must be provided to allow for the hygienic performance of all operations, access of personnel, installation of equipment, effective cleaning, and effective monitoring and verification of activities.
3.4.2.3 Buildings and facilities must be designed and constructed to prevent pest access and to eliminate potential breeding sites.

3.4.2.4 Buildings, facilities and equipment must be designed to facilitate separation between raw and thermally processed products. In the case of:

- medium risk raw material and thermally processed products, separation must be achieved by physical separation;
- minimal risk raw material and thermally processed products, separation must be achieved by either physical separation or separation by distance.

**Question for industry**

Do the separation procedures described above, especially in relation to fishing vessels that rendering, create difficulties for operators?

3.4.2.5 Buildings and facilities must be designed to minimise the need to access thermally processed animal product areas from areas likely to provide a source of contamination and to control personnel movement and access to prevent cross contamination.

3.4.2.6 Appropriate personnel hygiene facilities (e.g. washing facilities) must be provided for personnel who move between raw material and post thermal processing areas.

3.4.2.7 The area surrounding tallow tanks must be adequately paved and drained.

3.4.3 **Essential services**

[water, lighting, ventilation, and water and waste management]
3.4.3.1 An adequate supply of clean water, at appropriate temperatures, must be available at suitably located draw-off points to enable hygienic operation. Refer to section 4, Water used for Processing, for further information.

Hand washing should be warm, as this encourages personnel to wash adequately.

The temperature of water used for cleaning should be appropriate to the type of soil (e.g. fat, protein) being removed and the type of cleaning compound being used.

3.4.3.2 A reliable energy supply must be available to ensure required operations can be performed.

3.4.3.3 Adequate facilities must be provided for the collection and removal of any waste materials. This includes provision of waste and effluent disposal systems to handle and, where necessary, treat all liquid and solid waste.

3.4.3.4 Adequate means of natural or mechanical ventilation must be provided to:

a. minimise air-borne contamination of thermally processed product, e.g. from aerosols and condensation droplets; and

b. control ambient temperature and humidity, where these may adversely affected the suitability for processing of animal material or the fitness for intended purpose of animal product.

Where there are adjoining human consumption processing areas the air pressure should be controlled so that back flow of air, moisture, fumes or odours to human consumption processing areas via chutes, door ways or other conduits is minimised.

The requirements relating to this are outlined in the relevant human consumption processing Code of Practice.
3.4.3.5 Lights, skylights, and other glass fixtures over any exposed animal material or product must be of the safety type, or otherwise protected to prevent contamination of animal material or product in the event of breakage.

3.4.4 Facilities and internal structures

3.4.4.1 Adequate facilities must be provided for the storage of animal material or animal product, packaging, and non-food chemicals (e.g. cleaning materials, lubricants, and fuels).

3.4.4.2 Facilities must be designed to provide separation, by partition, location, or other effective means, between animal material or product and other materials that may cause contamination of any animal material or product (e.g. cleaning materials, hazardous substances, non-food materials, waste).

3.4.4.3 Floors that are subject to wet cleaning must be adequately graded to facilitate the drainage of water.

3.4.4.4 Floor to wall junctions must be constructed to facilitate easy cleaning.

3.4.4.5 Ceilings and overhead fixtures in post thermal processing areas must be constructed to minimise the build-up of dirt and condensation, and the shedding of particles.

3.4.5 Thermal processing equipment

3.4.5.1 There must be sufficient rendering capacity to ensure animal materials are processed with minimum delay.

3.4.5.2 Equipment for the control and monitoring of temperatures and other thermal processing parameters (e.g. time) used when processing medium risk raw
material must be provided and maintained so they accurately monitor the parameters of the process being controlled.

<table>
<thead>
<tr>
<th>Boxed Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are no specified time / temperature processing parameters for minimal risk raw material in this COP. As a result only sufficient temperatures to break down animal tissues into the constituent fact and protein elements need to be applied. Operators processing minimal risk raw material should provide equipment for the control and monitoring of temperatures and other thermal processing parameters (e.g. time) used when processing and maintain this equipment so they accurately monitor the parameters of the process being controlled.</td>
</tr>
</tbody>
</table>

### 3.4.6 Loading facilities

Loading facilities must be designed and constructed to protect animal product from environmental hazards and to ensure maintenance of the fitness for intended purpose.

Loading facilities for bagged and other packaged product should be provided with a canopy.

Protection for bulk meals should be provided by means of sealed docking bays or fully enclosed environmental loading facilities.

### 3.4.7 Detain facilities

Clearly identified detain facilities must be provided for the secure handling of detained animal material or product, when required.

### 3.4.8 Amenities

Where rendering and human consumption processing occurs at the same premises controls relating to amenities for the human consumption processing personnel are covered in the appropriate Code of Practice e.g. Code of Practice: Processing of Seafood Products. These COPs are most likely to require amenities for human consumption processing personnel to be physically separated from those for rendering personnel.
3.4.8.1 The following amenities must be provided for employees’ use:

- changing facilities;
- personnel hygiene facilities; and
- dining facilities.

3.4.8.2 Amenities must be located so as not to jeopardise the hygienic processing and storage of animal material and product.

3.4.8.3 Amenities must be designed, constructed and maintained in a manner that facilitates cleanliness and tidiness.

3.4.8.4 Physically separate dedicated amenities must be provided for personnel handling dead mammals and birds.

3.4.9 Repairs and maintenance

Normal in-process adjustments to machinery or equipment are not considered to be repairs or maintenance activities.

3.4.9.1 General

- A maintenance programme must be documented and implemented to ensure that equipment and facilities are maintained in good working condition and do not cause any contamination of any animal product.

For a small operator with simple processes the maintenance programme may be a checklist.

- All alterations, repairs and maintenance work on buildings, facilities and equipment must be done in a manner that minimises exposure of products to hazards introduced by this work.
• Any tools and/or equipment used during repairs or plant maintenance must be used in a manner appropriate to the status of any animal material or animal product nearby.

3.4.9.2 Breakdowns

When equipment breakdown occurs during processing, and repairs cannot be carried out in a sanitary manner, then consideration must be given to reprocessing or downgrading the affected animal material or animal product.

It is unlikely that animal material awaiting thermal processing will require reprocessing or downgrading. An exception might be contamination with hydraulic fluid. When the corrective action cannot be carried out in a sanitary manner consideration should be given to:

- removing the defective equipment from the processing environment to enable repair whilst production continues; or
- removing the animal product and packaging from the adjacent area of the room while the equipment is repaired; or
- ceasing processing in the affected area, and protecting animal product and packaging from contamination during repair of the equipment.

3.5 Monitoring

The responsible person must regularly check compliance to documented procedures.

The frequency and type of monitoring will depend on the nature of the operation, and on the degree of risk if hazards are uncontrolled.
3.6 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- site plans;
- equipment register;
- any problems detected regarding buildings, facilities and equipment;
- any alterations or repairs done;
- any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Refer to Part 2, Section 17 of this COP for record keeping requirements.
4 Water Used for Processing

Due to the number of water types an operator can use the requirements this section have been presented for each type. As a result the structure of this section is differently to other sections in this Part.

Operators may use one or more of the following categories of water:
- Clean water (supplied by an independent supplier of a standard administered by the supplier under the Health Act 1956 e.g. a town supply);
- Clean water (supplied by the operator solely for use by the operator);
- Water of an alternative quality;
- Clean seawater.

As a result the requirements below first outline the specific requirements that apply to each of the four categories of water and then the requirements that apply to all categories of water.

A summary of the mandatory requirements and procedures for each category of water is provided in section 4.5.

4.1 Purpose and Scope

To ensure that adequate supply of water of an appropriate quality is available for hygienic operations so as to not adversely affect the suitability of animal material or fitness for intended purpose of animal product.

Questions for industry
Is this section simple to follow? If not, suggest how it can be improved.
Do any land-based premises use clean seawater in their rendering operations? If so, are the requirements clear?
4.2 **Sources of Hazards**

The sources of hazards controlled under this programme are summarised in the table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples of hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faecal material (e.g. animal droppings, sewage)</td>
<td>Pathogenic micro organisms – E. coli spp, Campylobacter spp, Cryptosporidium, Giardia, viruses</td>
</tr>
<tr>
<td>Agricultural chemicals (e.g. fertiliser, pesticides)</td>
<td>Nitrate</td>
</tr>
<tr>
<td>Soil</td>
<td>Pathogenic micro organisms – E. coli spp, Campylobacter spp, Cryptosporidium, Giardia, viruses, Toxic chemicals, e.g. arsenic, boron</td>
</tr>
<tr>
<td>Pipes and tanks</td>
<td>Copper</td>
</tr>
<tr>
<td>Roof paint for roof collected water</td>
<td>Lead</td>
</tr>
</tbody>
</table>

4.3 **Mandatory Requirements**

These requirements must be met in addition to those required under the Building Act 2004 regime e.g. the provision of water for personnel hygiene and drinking.

4.3.1 **Specifications**

The clauses in the AC Specs that relate to water are clauses 4, 12, 13, 14, 15, 16 as well as Schedule 1.

4.3.2 **Definition of Clean Water**

Clean water means-

a. in relation to water supplied by an independent supplier (including a public or private supplier), water of a standard administered by the independent supplier under the Health Act 1956 and any regulations made under that Act; or
b. in relation to water supplied by the operator solely for the use of the operator (such as bore water, rainwater, surface water, or ground water), water that complies with the requirements in Schedule 1.

Specific mandatory requirements for each category of water

4.3.3 Clean water (supplied by an independent supplier of a standard administered by the supplier under the Health Act 1956)

4.3.3.1 Clean water in relation to water supplied by an independent supplier (including a public or private supplier) means water of a standard administered by the independent supplier under the Health Act 1956 and any regulations made under that Act.

4.3.3.2 Water (including ice and steam) that comes into direct, or indirect, contact with animal material or product being processed for animal consumption must be clean water, or clean potable water, at the point of use.

Most town / council water supplies are supplied by an independent supplier of a standard administered by the supplier under the Health Act 1956.

4.3.4 Clean water (supplied by the operator solely for use by the operator)

4.3.4.1 Clean water in relation to water supplied by the operator solely for the use of the operator (such as bore water, rainwater, surface water, or ground water) means water that complies with the requirements in Schedule 1.

4.3.4.2 Water (including ice and steam) that comes into direct, or indirect, contact with animal material or product being processed for animal consumption must be clean water, or clean potable water, at the point of use.
4.3.4.3 An operator must have a programme to ensure that the water coming into direct or indirect contact with animal material or product is clean water.

The *Water Supply Assessment Checklist*, referred to later under the ‘Initial Assessment of Water Supply Status’ may also be used to assist in documenting a water management plan.


For more information on water safety and tank installation, read *Household Water Supplies* (code 4602), available from your local public health service or your local authority (council).

4.3.4.4 An operator must implement a water reticulation management plan. This plan must include:

- systems to ensure that the clean water that is reticulated throughout the premises or place is not adversely affected by the reticulation system so that the intended water quality is delivered at point of use; and

- systems to ensure that there is no unintentional mixing of water of different standards; and

- an action plan with appropriate sanitation procedures to be implemented in the event of non-compliance with the water reticulation plan; and

- details of any additional treatment implemented by the operator to make the water fit for purpose.

4.3.4.5 Initial Assessment of Water Supply Status

The operator must assess all of the applicable water sources to demonstrate they do not result in affecting the fitness for purpose of animal material or product, and keep a copy of the completed assessment as part of the risk management programme.
The *Water Supply Assessment Checklist* provided in the latest version of the *Animal Products (Specifications for Products Intended for Human Consumption) Notice* may be used as a guide when undertaking this assessment. This checklist is used to determine whether the water source is satisfactory, and if other corrective action must be applied by the operator.

### 4.3.4.6 Reassessment of Water Supply Status

The operator must reassess the clean water-

- every five years; and
- whenever a new source of water is used in the plant; and
- within a month of there being a change to the environment on or around the water source that may affect the water quality.

The *Water Supply Assessment Checklist* provided in the latest version of the *Animal Products (Specifications for Products Intended for Human Consumption) Notice* may be used as a guide when undertaking this reassessment.

### 4.3.4.7 Ongoing Water Monitoring

Clean water must be subject to ongoing monitoring according to the following requirements-

- Clean water at the point of use must meet the criteria set out in Table 1 including the minimum testing frequency; and

  Chlorine, pH and turbidity measurements should be performed by a suitably skilled person using documented methodologies (including calibration procedures) and/or calibrated equipment.

- Microbiological testing must be performed by, or under, the supervision of a recognised signatory of a LAS (Laboratory Approval Scheme) laboratory, or a ISO/IEC 17025 accredited laboratory with the required tests in the laboratory’s scope of accreditation; and
A list of LAS approved laboratories, including authorised representatives & general categories, is available on the NZFSA Animal Products website under “Registers & Lists”.

c. The operator must ensure that the training of water samplers is undertaken by a laboratory referred to in paragraph (b).

**Table 1 - Testing requirements**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Criteria</th>
<th>Test Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faecal coliforms</td>
<td>Must not be detectable in any 100 ml sample</td>
<td>6 monthly</td>
</tr>
<tr>
<td>Turbidity</td>
<td>Must not exceed 5 NTU</td>
<td>6 monthly</td>
</tr>
<tr>
<td>Chlorine (when chlorinating)</td>
<td>Not less than 0.2 ppm (mg/l) free available chlorine with a minimum of 20 minutes contact time</td>
<td>Daily</td>
</tr>
<tr>
<td>pH (when chlorinated)</td>
<td>6.6 to 8</td>
<td>6 monthly</td>
</tr>
</tbody>
</table>

4.3.5 Water of an alternative quality

4.3.5.1 The operator may use an alternative water quality standard as determined by the operator provided-

a. the water quality standard is determined by an analysis of hazards and other risk factors; and

b. the suitability for processing of animal material or fitness for intended purpose of animal product is not adversely affected.

4.3.5.2 An operator must have a programme to ensure that the water coming into direct or indirect contact with animal material or product is water of the defined alternative quality standard.
4.3.5.3 An operator must implement a water reticulation management plan. This plan must include:

- systems to ensure that the clean water that is reticulated throughout the premises or place is not adversely affected by the reticulation system so that the intended water quality is delivered at point of use; and
- systems to ensure that there is no unintentional mixing of water of different standards; and
- an action plan with appropriate sanitation procedures to be implemented in the event of non-compliance with the water reticulation plan; and
- details of any additional treatment implemented by the operator to make the water fit for purpose.

4.3.6 Clean seawater

4.3.6.1 **Clean seawater** means seawater that is free of excessive turbidity, colour, offensive odour, and any contaminants.

4.3.6.2 Clean seawater (including ice and steam) that comes into direct, or indirect, contact with animal material or product being processed for animal consumption must be clean seawater at the point of use.

4.3.6.3 An operator must have a programme to ensure that the seawater coming into direct or indirect contact with animal material or product is clean seawater.

4.3.6.4 An operator must implement a water reticulation management plan. This plan must include:

- systems to ensure that the clean water that is reticulated throughout the premises or place is not adversely affected by the reticulation system so that the intended water quality is delivered at point of use; and
• systems to ensure that there is no unintentional mixing of water of different standards; and

• an action plan with appropriate sanitation procedures to be implemented in the event of non-compliance with the water reticulation plan; and

• details of any additional treatment implemented by the operator to make the water fit for purpose.

4.3.6.5 If clean seawater is used on fishing vessels it must only be taken from places that are of a distance offshore sufficient to ensure that the water quality is not at risk from pollution sources.

4.3.6.6 All water treatment equipment, including desalination plants, used on fishing vessels must be installed, maintained and operated in accordance with the manufacturer’s instructions.

Mandatory requirements for all water categories

4.3.7 Non-complying water

4.3.7.1 Where an operator:

• fails to comply with the water reticulation plan; or

• has reason to believe that the water is not fit for its purpose; or

• in the case of water from an independent supplier (e.g. local council), is advised by the supplier that the water is not fit for drinking by humans;

the operator must ensure that operations involving the water cease until they complete an assessment of the water quality that demonstrates that the water is still fit for its purpose and doesn’t affect the fitness for purpose of animal material or product being processed.
If the reason given by the independent supplier for the water not being fit for drinking by humans clearly doesn’t affect the fitness for purpose of the water then the operator may undertaken the assessment at that time. Therefore operations requiring the use of water would not need to cease.

4.3.7.2 The requirements in 4.3.7.1 do not apply where an operator’s risk management programme specifically provides a means for ensuring that water is still fit for its purpose at its point of use, despite the occurrence of an event listed in 4.3.7.1.

4.4 Procedures (For Compliance)

Procedures for:

- **Clean water** (supplied by the operator solely for use by the operator);
- Water of an alternative quality;
- Clean seawater

4.4.1 Management of reticulation system (i.e. reticulation management plan)

a. The water reticulation system within the premises must be designed, installed and operated in such a manner that prevents:

   - cross connections between the water being used and water of a lower standard;
   - stagnant water (i.e. no dead ends and unused pipes); and
   - back flow that may cause contamination of the water supply.

b. Water pipes, storage tanks and other parts of the reticulation system must be maintained in good condition.

The reticulation system must be flushed (i.e. taps are opened at point-of-use to allow a significant flow of water to occur) when water is not used for an extended period, and after any repairs to the system, to ensure that stagnant water, rust, scale or other material is flushed out of the system.
Procedures for all water categories

4.4.2 Supply

Adequate supply of clean water, water of a determined alternative quality or clean seawater must be available and used for:

- cleaning of animal material and product contact equipment and surfaces;
- washing of hands of personnel involved in the handling of any animal product, packaging, and product contact equipment; and
- any other activity wherein water comes into direct or indirect contact with any animal material or product.

4.4.3 Handling and disposition of contaminated materials

When contamination with water of a lower quality than specified occurs, the following actions must be carried out by a suitably skilled person:

- the suitability for processing of animal material and/or the fitness for intended purpose of animal product of any affected animal material or product must be assessed;
- the suitability of affected product contact surfaces and affected packaging materials must be considered.
### 4.5 Summary of Mandatory Requirements and Procedures

The mandatory requirements and procedures for water of different categories are summarised in the table below.

<table>
<thead>
<tr>
<th>Water type</th>
<th>Source</th>
<th>Mandatory Requirements</th>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean water</td>
<td>Town supply or other independent supply</td>
<td>- Section 4.3.3;</td>
<td>Management of reticulation system – N/a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Non-complying water – section 4.3.7</td>
<td>Supply – Section 4.4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Handling and disposition of contaminated materials – section 4.4.3</td>
</tr>
<tr>
<td>Clean water</td>
<td>Operator’s own supply (e.g. water sourced from a</td>
<td>- Section 4.3.4;</td>
<td>Management of reticulation system – section 4.4.1</td>
</tr>
<tr>
<td></td>
<td>bore, river, stream, roof)</td>
<td>- Non-complying water – Section 4.3.7</td>
<td>Supply – section 4.4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Handling and disposition of contaminated materials – section 4.4.3</td>
</tr>
<tr>
<td>Alternative</td>
<td>Any</td>
<td>- Section 4.3.5;</td>
<td>Management of reticulation system – section 4.4.1</td>
</tr>
<tr>
<td>water standard¹</td>
<td></td>
<td>- Non-complying water – section 4.3.7</td>
<td>Supply – section 4.4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Handling and disposition of contaminated materials – section 4.4.3</td>
</tr>
<tr>
<td>Clean seawater</td>
<td>Any</td>
<td>- Section 4.3.6;</td>
<td>Management of reticulation system – section 4.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Non-complying water – section 4.3.7</td>
<td>Supply – section 4.4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Handling and disposition of contaminated materials – section 4.4.3</td>
</tr>
</tbody>
</table>

1. As determined by the operator provided the:

- water quality standard is determined by an analysis of hazards and other risk factors; and
- suitability for processing of animal material or fitness for intended purpose of animal product is not adversely affected.
4.6 Monitoring

The responsible person must regularly check compliance to documented procedures.

4.7 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- completed *Water Supply Assessment Checklist* (except for clean water from an independent supplier)
- water management plan, if applicable
- water testing results, if applicable
- observations from monitoring, any water treatment applied, and any corrective action taken.

Refer to Part 2, section 17 of this COP for record keeping requirements.
5 Cleaning and Sanitation

5.1 Purpose and Scope

To ensure the effective maintenance, cleaning and sanitation of the premises, facilities and equipment so as to prevent or minimise the contamination of animal products.

5.2 Sources of Hazards

The sources of hazards controlled under this programme are summarised in the table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples of hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities and equipment</td>
<td>Bacterial pathogens, e.g. <em>Listeria</em> spp., <em>E.coli</em> spp., <em>Salmonella</em> spp.</td>
</tr>
<tr>
<td>Waste</td>
<td>Bacterial pathogens, e.g. <em>E. coli</em> spp., <em>Salmonella</em> spp.</td>
</tr>
<tr>
<td>Cleaning chemicals</td>
<td>Chemical residues</td>
</tr>
<tr>
<td>Cleaning implements (e.g. mops, rags)</td>
<td>Bacterial pathogens, e.g. <em>Listeria</em> spp., <em>E.coli</em> spp.</td>
</tr>
</tbody>
</table>

5.3 Mandatory Requirements

5.3.1 AP Reg 11

All operators must establish and carry out procedures to:

- ensure appropriate and adequate maintenance, cleaning, and sanitation of processing premises, facilities, essential services, and equipment (including conveyances); and
- manage waste.
5.3.2 AC Specs 21 (1), (2)

1. Only approved maintenance compounds may be used during processing operations or in the maintenance of processing areas, facilities and equipment.

2. Despite subclause 1, the operator may use an alternative maintenance compound provided the operator has determined by analysis that the compound and its intended use will not adversely affect the suitability for processing of animal material, or fitness for intended purpose of the animal product.

5.4 Procedures (For Compliance)

5.4.1 All areas within the physical boundaries of the Risk Management Programme (RMP) must, at all times, be maintained in a state to:

- enable the effective implementation of the RMP; and
- prevent direct or indirect contamination of animal products from pest, wastes, chemicals and other environmental contaminants.

5.4.2 The operator must develop and implement a documented cleaning and sanitation programme that covers the cleaning of equipment, facilities, and the internal and external environment of the premises.

5.4.3 The cleaning and sanitation programme must include the following information:

- areas, facilities or equipment to be cleaned;
- cleaning procedures, including chemicals to be used;
- frequency of cleaning;
- people responsible for cleaning; and
- cleaning procedures and cleaning frequency that are appropriate for the area being cleaned.
Wet cleaning procedures should be used for raw material areas. These procedures should include a selection of the following steps - removing the gross soils, low pressure water flush, cleaning with the aid of a detergent, hot or cold water flush, sanitising and a water rinse.

Dry cleaning procedures should be used for post thermal processing areas. These procedures include brushing, scraping and vacuuming.

A combination of wet and dry cleaning should be considered in thermal processing areas (where cooking and tallow separation occur).

5.4.4 Cleaning must be carried out in such a manner that will prevent the contamination of any animal product, packaging material; or previously cleaned areas, facilities or equipment.

5.4.4.1 Equipment used for transporting raw material must be cleaned in a designated area after emptying.

The designated area should be located so as to prevent contamination of thermally processed products.

5.4.5 All animal materials collected during cleaning must be treated as waste unless an assessment by a suitably skilled person determines that the material is acceptable for reprocessing.

Material that has been contaminated with chemicals during the cleaning process is unlikely to be acceptable for reprocessing.

5.4.6 Workers must be adequately trained on the handling of cleaning chemicals and the implementation of the cleaning programme.

5.4.7 Adequate space must be available to allow effective cleaning in storage areas.
5.4.8 When meal is present meal storage areas must be kept dry and must be cleaned regularly by sweeping or vacuuming.

Meal storage areas may be wet cleaned when no meal is present provided the storage areas are adequately dried prior to meal being stored.

5.4.9 Amenities must be cleaned regularly and maintained in a hygienic condition.

5.4.10 Cleaning implements and equipment must be maintained in a hygienic condition so that they do not provide a source of direct or indirect contamination to any animal product, packaging or product contact surface.

5.5 Monitoring

The responsible person must regularly check compliance to documented procedures and the effectiveness of the cleaning programme. The frequency of monitoring must be sufficient to give confidence that the cleaning and sanitation programme is operating effectively.

5.6 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- cleaning records;
- list of approved chemicals;
- training records; and
- verification of cleaning records (e.g. reality checks, chemical strength tests)

Refer to Part 2, section 17 of this COP for record keeping requirements.
6 Personnel Competency, Health and Hygiene

Amendment 0
August 2008

6.1 Purpose and Scope

To ensure that all personnel are competent and medically fit to perform their duties, and that they comply with good hygienic practices. Personnel include all workers, contractors providing services, and visitors.

6.2 Sources of Hazards

The sources of hazards controlled under this programme are summarised in the table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples of hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>Bacterial pathogens, e.g. post thermal processing <em>Salmonella</em> spp., <em>E. coli</em> spp., <em>Staphylococcus aureus</em></td>
</tr>
<tr>
<td></td>
<td>Hepatitis A virus</td>
</tr>
<tr>
<td>Clothing/footwear</td>
<td>Bacterial pathogens, e.g. post thermal processing <em>Salmonella</em> spp., <em>E. coli</em> spp., <em>Clostridium</em> spp.</td>
</tr>
<tr>
<td>Personal items (e.g. jewellery, pens, hair clips)</td>
<td>Metal objects</td>
</tr>
</tbody>
</table>
6.3 Mandatory requirements

6.3.1 AP Reg 12

The operator must ensure that all personnel, including visitors, whose presence or action within the premises may result in contamination of animal product:

- wear appropriate protective clothing, where necessary;
- follow an appropriate personal hygiene routine; and
- behave in such a manner as necessary to minimise contamination of animal product, other inputs, packaging and the processing environment.

6.3.2 RMP Spec 15 (2)

The operator must document the competencies needed by:

- the day-to-day manager;
- those persons authorising all or part of the risk management programme; and
- those persons performing key tasks under the risk management programme including monitoring, corrective action, and operator verification.

6.3.3 RMP Spec 15(3)

The operator must keep records demonstrating that the competencies mentioned in 6.3.2 have been achieved and maintained.
6.3.4 AC Spec 22

The operator must take reasonable measures to ensure that a person (including any visitor or contractor) who is:

- infected with, or a carrier of, an infectious disease in a communicable form as described in Section A, Part 1, of the First Schedule of the Health Act 1956, and that is likely to be transmitted through animal products or associated things; or
- suffering from acute respiratory infection; or
- suffering from boils, sores, infected wounds, or any other condition that cannot be adequately prevented from becoming a source of contamination;

does not work as a product handler in, or enter, an area where he or she may adversely affect the suitability for processing of animal material or the fitness for intended purpose of animal product.

Where a worker does not work in a manner that may adversely affect the suitability for processing of animal material or the fitness for intended purpose of animal product the listed items are not mandatory requirements.

6.3.5 AC Spec 24(1)

The operator must ensure that the skills of persons involved in key tasks that could have a significant impact on the suitability for processing of animal material or the fitness for intended purpose of animal product are maintained on an ongoing basis.

6.3.6 AC Spec 24(2)

The operator must keep records demonstrating that skills identification, achievement and maintenance is being carried out effectively.
6.4 Procedures (For Compliance)

6.4.1 Competencies

6.4.1.1 The day-to-day manager or person authorising all or part of the RMP must be familiar with the documented risk management programme and have the following competencies:

- knowledge in the application of HACCP principles, and hygienic procedures and practices documented in this code of practice;
- knowledge in regulatory requirements, including responsibilities, related to the effective development and implementation of the RMP;
- technical knowledge and experience in the particular operation; and
- ability to liaise and communicate effectively with workers and the regulator.

6.4.1.2 Workers performing key tasks including monitoring, corrective action, and operator verification must:

- have knowledge and skill in executing the particular task; and
- be familiar and able to consistently comply with hygienic practices and procedures.

6.4.2 Training

6.4.2.1 The operator must:

- inform new workers of their job description, health requirements, and hygienic practices and procedures before starting work; and
- provide ongoing supervision and/or training must be provided to ensure that new workers are adequately trained on their specific tasks and on hygienic practices and procedures.
Where appropriate, clear instructions on hygienic practices (e.g. hand washing, use of protective clothing) and on operational tasks should be posted in the premises to re-enforce the procedures.

<table>
<thead>
<tr>
<th>Qualification/Unit Standard</th>
<th>Description</th>
<th>Level</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Certificate in Meat Processing (Associated Processes) with strand in Rendering</td>
<td>3106: Demonstrate knowledge of high temperature rendering systems used in the meat processing industry</td>
<td>level 2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3107: Demonstrate knowledge of low temperature rendering systems used in the meat processing industry</td>
<td>level 2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3108: Operate high temperature rendering process</td>
<td>level 3</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>3109: Operate low temperature rendering process</td>
<td>level 3</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>3110: Operate blood drying process</td>
<td>level 3</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>3111: Prepare and dispatch rendered meat products</td>
<td>level 2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3112: Complete rendering department cleaning programmes</td>
<td>level 2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>17687: Demonstrate knowledge of the meat industry standard regarding byproducts</td>
<td>level 3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>19456: Analyse the requirements for Meat Industry Standard 7: Byproducts</td>
<td>level 4</td>
<td>8</td>
</tr>
</tbody>
</table>
6.4.3 Health of workers

6.4.3.1 The operator must ensure that all employees, visitors and contractors understand relevant health and hygiene requirements.

A documented health policy may be useful, covering matters such as working with wounds, communicable diseases, and notification procedures for workers suffering from any illness or injury.

6.4.3.2 Workers involved in the processing and handling of product must inform the person responsible for operations if they are suffering from diarrhoea, acute respiratory infection; or is diagnosed with illness caused by Salmonella, Shigella spp., E. coli spp., Campylobacter, Hepatitis A virus infection.

6.4.3.3 A worker with any of the conditions listed in 6.4.3.2 must be restricted to work in areas and activities that will not lead to direct or indirect contamination of any product.

A person with any of these conditions may still work or enter areas as long as they do not work in a manner or enter an area where they may adversely affect the suitability for processing of animal material or the fitness for intended purpose of animal product. As a result this does not preclude personnel working in a rendering operation until they are cleared to return to work in human consumption processing areas. The NZFSA Sickness Policy Template provides useful background information for managing ill staff. It should be noted that “acute respiratory infections” are not considered to include the common cold or ‘flu as these are not transmissible by food.

When workers are dealing with raw material the greater health risk is contamination of the injury, wound, or cut by the raw material. In this case an operator’s health and safety practices would be expected to address this risk.
6.4.4 Hygienic practices

6.4.4.1 Personnel must maintain an appropriate level of hygiene and must not undertake other activity that may cause the contamination of any product or product contact surface.

Personnel should thoroughly wash and dry hands and exposed portions of the arms with hand detergent and water:
- before handling any exposed rendered product or food contact material;
- after using the toilet.

When a water source is impractical to have within a certain area, alternative options for sanitising workers’ hands may be considered.

Personnel should not eat, drink, smoke, spit in any processing area.

Jewellery should either be secure or contained within protective coverings (e.g. body jewellery covered by plasters).

6.4.4.2 In post thermal processing areas hands, protective clothing and personal equipment must be washed or cleaned regularly and whenever they become grossly contaminated.

6.4.4.3 Workers who enter any processing area must wear appropriate protective clothing. Protective clothing and personal equipment must be visibly clean at the start of each day’s operations and maintained in an appropriate condition for the particular processing area.
All personnel and visitors entering any processing area should wear appropriate protective clothing. This minimises contamination of existing clothing and protects post thermal processed products.

6.4.4.4 Safety equipment must be made of materials which are readily cleanable unless it is covered with clean protective clothing.

When reusable protective clothing or personal equipment comes in direct contact with rendered animal product it is advisable to set aside an area for storage when the clothing or personal equipment are not in use.

6.4.4.5 Protective clothing and personal equipment must not become contaminated as a consequence of the activities of personnel outside the processing area.

Protective clothing should not be worn outside of work areas and amenities. As noted in section 3, where rendering and human consumption processing occurs at the same premises controls relating to amenities for the human consumption processing personnel are covered in the appropriate Code of Practice e.g. Code of Practice: Processing of Seafood Products. These COPs are most likely to require amenities for human consumption processing personnel to be physically separated from those for rendering personnel.

6.4.4.6 Protective clothing and footwear used in any area where dead mammals or birds are handled must not be worn in any other part of the premises.

6.4.4.7 Personnel must carry out a sanitary routine before commencing any procedure contacting animal product where the hygiene of the animal products of a higher status than that which the worker has just left.
Personnel should be assigned to procedures of similar hygienic status i.e. avoid unnecessary movement of staff from raw material to post thermal processing areas. Consideration should be given to personnel changing from rendered product to human consumption activities. Documentation covering the processing for human consumption would be expected to address this point.

Operators should also consider the use of dedicated labelled e.g. “meal room” clothing (e.g. overalls, lab coats) for staff working in post thermal processing areas. This allows them to be laundered separately.

6.4.4.8 Personnel who have been contaminated with medium risk raw material in a raw material area must change their protective clothing, disinfect or change their footwear and wash their hands prior to entering any processing area or post thermal processing area.

6.4.4.9 Personnel who have been in a medium risk raw material area but have not handled raw material must disinfect or change their footwear and wash their hands prior to entering any processing area or post thermal processing area.

6.4.4.10 Personnel who move from a minimal risk raw material area into a processing area or post thermal processing area must behave in such a manner to minimise contamination of animal product, other inputs, packaging and the processing area or post thermal processing area.

6.4.4.11 All maintenance personnel must comply with the requirements for personal hygiene appropriate to the area they are operating in.

This includes following the appropriate sanitary routines when moving between areas of differing hygienic status.
6.4.5 Visitors and contractors

6.4.5.1 Visitors and contractors who wish to enter any processing area must comply with the operator’s documented health requirements and follow all required hygienic practices.

Visitors and contractors who wish to enter a processing or packing area should sign a visitor’s logbook on arrival.

6.4.5.2 First time visitors and contractors must report to the responsible person on arrival at the premises.

6.4.5.3 While in the premises, visitors and contractors must:

- be supervised by an assigned staff, who is responsible for ensuring that they follow hygienic practices and procedures; or
- have been informed of health requirements, and hygienic practices and procedures before starting work.

This allows for contractors who regularly work within the premises to work unsupervised if they have received appropriate training. When this occurs the operator should maintain records of the induction and training.

6.4.5.4 Visitors and contractors must not be allowed to handle exposed animal material or product in processing and storage areas unless they have complied with all the hygiene requirements for product handlers.

6.4.6 Handling and disposition of contaminated materials

a. When rendered product is contaminated from a worker’s injury, wound or cut (e.g. blood) the operator must assess:

- the fitness for intended purpose of any affected animal product;
the suitability of affected product contact surfaces and affected packaging materials.

Cleaning and sanitising prior to reuse may be required.

6.5 Monitoring

The responsible person must regularly check compliance to documented procedures. The frequency and type of monitoring will depend on the nature of the operation and the degree of risk if hazards are uncontrolled. Monitoring options could include the following daily checks:
- Before processing: checks to confirm all staff are following correct procedures for wearing protective clothing, and for entering the processing areas;
- During processing: checks to confirm that all staff are complying with requirements for personal hygiene and hygienic work practices.

6.6 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- any medical certificates
- induction of personnel
- training of personnel, showing the competency level of individual staff members
- monitoring records of compliance to hygienic practices and/or of any problems observed and any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Records may be kept in a logbook, record form or checklist or electronically.

Refer to Part 2, section 17 of this COP for record keeping requirements.
7 Control of Chemicals

Amendment 0
August 2008

7.1 Purpose and Scope

To ensure the proper use and storage of maintenance compounds so as to prevent or minimise the contamination of animal material or product, packaging, equipment, and the processing or storage environment. Maintenance compounds are chemicals used for cleaning or sanitising of equipment or surfaces, treating water, pest control, or the repair and maintenance of equipment and may either be NZFSA approved (non-dairy) maintenance compounds or be determined to be acceptable for use by the operator.

Applies to all chemicals used except where:

- a specific exemption has been provided in the current Approved Maintenance Compounds Notice; or

- they are listed in Schedule 7, “Substances generally recognised as safe feed additives in oral nutritional compounds or safe ingredients in oral gastrointestinal-acting microflora-enhancing compounds”, of the Agricultural Compounds and Veterinary Medicines Regulations 2001 (ACVM Regs).

Note: under the Agricultural Compounds and Veterinary Medicines Act (ACVM Act) regime feed additives used in oral nutritional compounds must be listed in Schedule 7 of the ACVM Regs. Oral nutritional compound is an ACVM Act term meaning a substance ingested by an animal as feed, or a nutritional preparation intended for oral administration to an animal to achieve a nutritional benefit.
7.2 Sources of Hazards

The sources of hazards controlled under this programme are summarised in the table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples of hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance compounds (e.g. cleaning</td>
<td>Chemical residues</td>
</tr>
<tr>
<td>agents, pesticides, lubricants)</td>
<td></td>
</tr>
<tr>
<td>Chemical containers</td>
<td>Chemical residues</td>
</tr>
</tbody>
</table>

7.3 Mandatory Requirements

7.3.1 AP Reg 11(3)

Maintenance compounds must be stored, handled, and used in a manner that minimises contamination of animal material, animal product, packaging, other inputs, equipment, and the processing environment.

7.3.2 AC Specs 21 (1), (2)

1. Only approved maintenance compounds may be used during processing operations or in the maintenance of processing areas, facilities and equipment.

2. Despite subclause 1, the operator may use an alternative maintenance compound provided the operator has determined by analysis that the compound and its intended use will not adversely affect the suitability for processing of animal material, or fitness for intended purpose of the animal product.

7.3.3 AC Specs 21 (3)

All containers of maintenance compounds must be labelled in such a way as to clearly identify the maintenance compounds they contain and approved maintenance compounds must be identified using the name specified in the approval.
7.4 Procedures (For Compliance)

7.4.1 A list of all maintenance compounds that are used and held in the premises must be maintained.

All chemicals should be checked upon purchase or receipt to confirm that they are approved or have been determined by the operator as being acceptable.

7.4.2 Chemicals must be kept in a designated area (e.g. shelf, cupboard, room) and kept separate from raw material, products, ingredients, or packaging. This area must be kept dry and maintained in a clean condition.

Containers of chemicals should be closed immediately after use.

7.4.3 All containers of chemicals must be clearly labelled with the name of the chemical.

Where bulk chemical supplies are transferred to smaller containers for immediate use, the name of maintenance compound, as shown on the manufacturer’s label, should be used on the container. For approved maintenance compounds this should also be the name listed in the current Approved Maintenance Compounds Notice or approval letter.

7.4.4 All chemicals must be used according to the directions of the manufacturer and any NZFSA approval condition. Directions for use must be readily available to the user (e.g. given in the label, posted on the wall or in product information data sheets).

When processing in an area has ceased for routine or programmed maintenance the requirement to use either NZFSA approved (non-dairy) maintenance compounds or compounds determined to be acceptable for use by the operator no longer applies.

7.4.5 Chemicals must be handled and used by or under the supervision of suitably trained or experienced personnel.
7.4.6 Empty chemical containers must not be re-used in any way that could contaminate animal material or product, packaging, equipment or the processing environment.

Disposal of containers should be in accordance with any manufacturer's instructions.

7.4.7 After the use of chemicals during routine or programmed maintenance, the affected parts of the room, equipment and packaging materials must be suitable for processing.

A wet cleaning to remove chemical residues may be necessary.

7.4.8 Handling and disposition of contaminated materials

When chemical contamination occurs, the operator must assess:

- the suitability for processing of any affected animal material and/or the fitness for intended purpose of any affected animal product;
- the suitability of affected product contact surfaces and affected packaging materials.

Cleaning and sanitising prior to reuse may be required.

7.5 Monitoring

The responsible person must regularly check compliance to documented procedures.
7.6 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- list of maintenance compounds that are used and held in the premises; and
- training records of workers trained on chemical handling and use; and
- records of any non-compliance or problems detected, and any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Refer to Part 2, section 17 of this COP for record keeping requirements.
8 Pest Control

8.1 Purpose and Scope

To ensure effective control of pests so as to prevent or minimise the contamination of animal material, animal product, packaging, other inputs, equipment, and the processing environment. Pests include rodents, wild birds, insects, dogs and cats.

8.2 Sources of Hazards

The sources of hazards controlled under this programme are summarised in the table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples of hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insects, rodents, birds, cats and dogs</td>
<td>Bacterial pathogen, e.g. post thermal processing Salmonella, Campylobacter spp., E.coli spp., Listeria monocytogenes</td>
</tr>
<tr>
<td>Pesticides</td>
<td>Chemical residues</td>
</tr>
</tbody>
</table>

8.3 Mandatory Requirements

8.3.1 AP Reg 11 (1) (2)

Effective procedures must be established and carried out to minimise the exposure of animal material, animal product, packaging, other inputs, equipment, and the processing environment to hazards associated with pests.

8.3.2 AP Reg 10

Premises, facilities, equipment and essential services must be designed, constructed, located and operated to minimise the exposure of animal material and animal product to hazards and other risk factors from pests.
8.3.3 AP Reg 11(3)

Maintenance compounds must be stored, handled, and used in a manner that minimises contamination of animal material, animal product, other inputs, packaging, equipment, and the processing environment.

8.4 Procedures (For Compliance)

The operator may employ a pest control person or agency to develop and implement a pest control system (e.g. set up traps, spraying programme) and monitor the premises. The operator is responsible for ensuring that the person or agency responsible is competent to perform the task.

Operators using a contracted pest control agency should also document procedures for addressing pest control problems that arise between scheduled agency visits.

8.4.1 Pest control programme

8.4.1.1 The operator must document a pest control programme which includes the following information:

- the person or agency responsible for undertaking pest control activities;
- pest control procedures (e.g. prevention, monitoring, corrective action);
- frequency of inspection or monitoring; and
- location of bait stations and other pest traps.

8.4.2 Prevention of infestation and access of pests

8.4.2.1 Buildings and storage facilities (including water storage tanks) must be kept in good repair and condition to prevent pest access and to eliminate potential breeding sites.
8.4.2.2 Holes, drains and other places where pests are likely to gain access must be kept sealed, or provided with screens or similar materials that prevent the entry of pests.

Mesh screens should be used on open windows, doors, ventilators and other openings in processing areas that may be kept open during operations, to prevent the entry of insects, birds and other pests.

External doors should have rubber seals on the bottom of the doors.

8.4.2.3 External doors that are not screened must be kept closed at all times when not in use.

External doors may be self closing.

8.4.2.4 Internal and external areas of the premises must be kept clean and tidy. The external environment must be checked regularly and kept free of any food source and breeding sites (e.g. long grass, bird’s nest).

Areas that are likely to attract flies and other insects should be sprayed, as necessary.

8.4.2.5 All conveyances, and equipment for handling, storing, or transporting animal material (including dead stock) intended for rendering must be maintained in a condition to minimise pest access and eliminate potential breeding sites.

Conveyances include vehicles, trolleys and trays.

Conveyances and equipment should be covered during transport and holding except were this is it a requirement. Refer Process Control sections.

8.4.2.6 Waste material, which is unfit for any purpose and is awaiting disposal, must be regularly collected and disposed of.

External waste material bins must be kept in covered pest-proof containers.
8.4.2.7 Pest infestations must be dealt with immediately.

8.4.3 Use of pesticides

8.4.3.1 Pesticides (rodenticides and insecticides) must be handled, used and stored according to the control procedures given in section 7: Control of Chemicals.

8.4.3.2 Insecticides that have any residual activity (e.g. Type B) or are dispensed as continuous aerosols must not be used in any processing or storage area in a manner that could cause the contamination of animal product or product contact surfaces.

8.4.4 Use of pest traps

8.4.4.1 Pest traps (including rodent boxes, bait stations and electric insect traps) must be located where they do not present a risk of contamination to animal material or product.

8.4.4.2 Bait stations must not be located:

- in areas where exposed product is held; or
- inside any processing area except for use in areas where bagged product is stored, where the bait stations are located a sufficient distance from the product so there can be no possibility of contamination of the product.

| The location of pest traps should be identified on a site or building plan, or other suitable record. |
| Bait stations should be located in areas where rodent activity is likely. |

Wax bait blocks are preferable as they can be secured into rodent bait stations. The bait type should be changed occasionally to avoid it becoming ineffective.
8.4.4.3  Rodenticides must be used only in enclosed bait boxes.

8.4.4.4  Bait stations must be checked regularly for the following:

- correct location as indicated in the plan or record, and presence of bait. The box must be cleaned and re-baited with an approved rodent bait, as necessary;
- evidence of pest activity (e.g. nibbled bait, bait missing, droppings); and
- boxes are in good working condition.

The frequency for monitoring of traps should be determined relative to the type of trap and the degree of pest activity noted. Increased monitoring and appropriate corrective actions should be implemented when increased rodent activity is observed. A minimum monitoring frequency of monthly is likely to be necessary.

8.4.4.5  Insect traps, which include ultra-violet lamps, pheromone traps and any form of attractant device, must:

- be constructed so they catch and secure insects in a suitable drawer, tray or adhesive mat which facilitates the capture and removal of insects;
- not cause any air-borne contamination; and
- be sited so there is no contamination from insects falling on to thermally processed product, packaging, or product contact surfaces.

8.4.5  Handling and disposition of contaminated materials

Where there is evidence of contamination from pests, the operator must assess:

- the suitability for processing of any affected animal material and/or the fitness for intended purpose of any affected animal product;

Options that may be appropriate for the affected animal material or product include reprocessing the affected animal product, fumigation or assigning an alternative disposition (e.g. use as fertiliser).
the suitability of affected product contact surfaces and affected packaging materials.

Cleaning and sanitising prior to reuse may be required. Post thermal processing areas should be given additional consideration.

8.4.6 Monitoring

The responsible person must regularly check compliance to documented procedures and the effectiveness of the pest control programme.

The frequency and type of monitoring will depend on the nature of the operation and the degree of risk if hazards are uncontrolled. Monitoring could include:
- visual checks of processing and product areas for any signs of vermin activity, and for evidence that rubbish and waste is properly managed;
- checks on integrity of vermin proofing (e.g. screens, seals);
- checks on bait stations.

8.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- observations from monitoring, including any evidence of pests;
- name and point of use of any pesticides used; and
- any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Refer to Part 2, section 17 of this COP for record keeping requirements.
9 Calibration

9.1 Purpose and Scope

To ensure that measurements taken to demonstrate conformity with mandatory and other requirements are accurate and valid by ensuring that measuring equipment is properly calibrated and maintained.

9.2 Mandatory Requirements

9.2.1 AP Reg 14 (1)

All specified persons must ensure that measuring equipment that is used to carry out a critical measurement is properly calibrated and functions as intended.

AP Reg 14(2) states that a critical measurement, in relation to this regulation, means a parameter identified as critical in any:
- risk management programme, being a parameter of the nature of the parameters referred to in section 17(3)(c) of the Act in relation to points at which hazards of significant occur [i.e. critical limits relating to a critical control point (CCP)]; or
- specifications or regulated control scheme.

9.2.2 AC Spec 25 (1)

Measuring equipment, such as weighing scales, thermometers, pH meters, and flow meters, whether stand alone, or forming part of a piece of equipment, that is used to provide critical measurements, must-

a. have the accuracy, precision, and conditions of use appropriate to the task performed; and
b. be calibrated against a reference standard showing traceability of calibration to a national, or international, standard of measurement (where available), or (if no such reference standard exists) be calibrated on a basis that is documented in, or incorporated by reference into, the risk management programme; and

c. be uniquely identified to enable traceability of the calibrations and to identify calibration status.

9.2.3 AC Spec 25 (2)

Minimum frequencies of calibration must be specified in the risk management programme for each piece of measuring equipment used to provide critical measurements, or used as reference standards, taking into consideration the following (as appropriate)-

a. the stability of the piece of equipment; and

b. the nature of the measurement; and

c. the manufacturer’s instructions.

9.2.4 AC Spec 25 (3)

Safeguards must be in place to prevent unauthorised adjustments to the calibration of the measuring equipment, including movement of the equipment where this may effect the calibration.

9.3 Procedures (For Compliance)

9.3.1 The operator must document a calibration programme for measuring devices, including any hand-held thermometers, thermal processing units (e.g. cookers, driers), and weighing scales.
9.3.2 The calibration programme must include the following information:

- a description of each equipment (e.g. type of equipment, model);
- a means of identifying each equipment (e.g. serial numbers, indelible tags or other permanent means of identification);
- frequency of calibration required for each piece of equipment;
- calibration schedule (i.e. when the equipment was last calibrated and when the next calibration is due); and
- procedure for calibrating the instrument, showing how the operator will meet the requirements of AC Spec clause 25(1)(b) or the accredited calibrating agency or testing facility performing the calibration.

It is important to consider the frequency of use of the instrument, its stability and the degree of accuracy required. Some pieces of equipment (e.g. scales), which become inaccurate if moved, may require calibration after any such movements.

9.3.3 The operator must have a system in place for ensuring accuracy on an ongoing basis between calibrations.

The operator should have in-house quality control procedures capable of detecting changes in the accuracy of the device. These checks should be carried out against reference standards on a frequent basis. Examples of in-house quality control procedures include:

- use of check weights in the case of weighing scales;
- ice point checks in the case of thermometers expected to work in the range -40°C to 100°C;
- checks against buffered solutions in the case of pH meters; and
- any other checks recommended by the calibration laboratory.
9.3.4 Measuring devices that do not have a current calibration certificate or have been subsequently affected by a change in their accuracy must not be used.

9.4 Monitoring

The responsible person must carry out regular checks for compliance with documented procedures and to demonstrate that equipment used remains within an acceptable range.

9.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- identification and calibration status of equipment;

- calibration certificates showing traceability to appropriate standard measurement;

- monitoring and verification records.

Refer to Part 2, section 17 of this COP for record keeping requirements.
10 Categorisation and Eligibility of Raw Material

10.1 Purpose and Scope

To describe the different categories of raw material, their sources and eligibility for use.

10.2 Mandatory Requirements

Not eligible for animal consumption

10.2.1 AC Spec 37(4)

The following animals must not be processed for animal consumption-

a. Animals used for research purposes, except where an approval is granted under subclause 39(2); or

b. Pets, zoo animals, guinea pigs, rats, mice; or

c. Any other animal notified by the Director-General.

High risk raw material

10.2.2 AC Spec 5

1. “High risk raw material” means a type of animal material or product that is-

a. declared by the Director-General to contain infectious agents or substances harmful to animals; or
b. medium risk raw material or minimal risk raw material that has come into contact with any high risk raw material; or

c. animal material or product that is derived from ruminant animals imported live into New Zealand.

2. High risk raw material may not be processed for animal consumption, dealt with or disposed of, except in accordance with instructions issued by the Director-General.

10.2.3 AC Spec 37(3)

High risk raw material is not eligible for processing for animal consumption, except in accordance with clause 5(2) and disposition must be in accordance with instructions issued under clause 5(2).

10.2.4 AC Spec 71

Operators must not collect or process high risk raw material, except in accordance with instructions and requirements specified by the Director-General in writing.

Medium risk raw material

10.2.5 AC Spec 6 [Medium risk raw material]

"Medium risk raw material" means, animal material or product that is-

a. derived from slaughtered or killed animals that are suspected to be diseased;

b. derived from animals slaughtered and killed for specific disease eradication purposes as directed by the Director-General;

c. derived from mammals and birds that have died in the field;

d. derived from homekill or recreational catch;
e. derived from animal material or product from any animal containing residues of agricultural compounds or veterinary medicines, toxic substances or natural substances, including shellfish affected by marine biotoxins, which may result in harm to the consumer, except where any particular residue or toxic substance can be processed or treated so that they can be reduced to a level that is unlikely to result in harm to the consumer;

f. derived from animal material or product which is not fit for animal consumption without further processing or treatment;

g. any other material declared to be medium risk raw material by the Director-General;

h. any minimal risk raw material that has come into contact with any medium risk raw material.

The conditions for use of medium risk raw material are given in AC Spec clause 72 and explained in the Process Control Sections (11-14).

**Minimal risk raw material**

10.2.6 AC Spec 7

"Minimal risk raw material" means any animal material or product that is not of a kind listed above in AC Spec 5 or 6, and which does not result in any direct or indirect harm to animals on consumption.
Minimal risk raw materials can be derived from premises operating under the Animal Products Act or Food Act regimes.
Sources of minimal risk raw materials could include processing scraps, such as boning room off cuts/bones, fish heads, gut or frames, that are obtained from the operators under the:
- Animal Products Act regime that process seafood or slaughtered / killed animals for human or animal consumption; or
- Food Act that process seafood, red meat or poultry for human consumption. This would include premises registered under the Health (Registration of Premises) Regulations 1966.
Minimal risk raw material may be handled through normal processing scrap handling systems if this does not adversely affect the suitability for processing of the animal material or the fitness for intended purpose of animal product i.e. does not introduce any hazard that may result in any direct or indirect harm to animal on consumption.

10.2.7 AC Spec 37(1)

Minimal risk raw material is eligible for animal consumption without further processing.
11 Process Control – General Requirements

Amendment 0
August 2008

11.1 Purpose and Scope

To ensure that process control procedures are developed and implemented so that animal material and product is collected, processed and stored in a manner that minimises its deterioration, and will not adversely affect the suitability for processing of animal material, or fitness for intended purpose of the animal product.

The requirements for various stages of processing are covered in the following sections:

- Section 11 – General Requirements
- Section 12 - Raw Material Collection, Transport and Handling
- Section 13 – Thermal Processing
- Section 14 – Post Thermal Process Handling

11.2 Mandatory Requirements

The mandatory requirements relating to process control are detailed in each specific section.

11.3 Procedures (For Compliance)

11.3.1 Documented procedures

11.3.1.1 The operator must document procedures for process control and hygienic handling of products, and establish parameters for animal material and product received, processed and held on the premises.
11.3.1.2 The documented procedures must cover:

- control measures (i.e. operating procedures);
- monitoring procedures;
- corrective action to be taken when non-compliance occurs (including disposition of affected animal material and product); and
- records to be kept.

11.4 Monitoring

The responsible person must carry out regular checks for compliance with documented procedures.

11.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures.

Refer to Part 2, section 17 of this COP for record keeping requirements.
12 Process Control – Raw Material Collection, Transport and Handling

Amendment 0
August 2008

12.1 Purpose and Scope

To ensure that animal material is collected, transported and handled in a manner that minimises its deterioration and will not adversely affect the suitability for processing of animal material.

**Note:** the requirements and procedures relating to the collection of animal material at human consumption processing premises are covered in appropriate Code of Practice e.g. Code of Practice: Processing of Seafood Products.

12.2 Mandatory Requirements

12.2.1 AP Reg 5

1. Animal material used for processing into animal product must be suitable for that purpose.

2. Where required by specifications, the supplier of animal material for processing into animal product must provide information, in accordance with the specifications, relating to the status of the animal material when it is presented for processing, namely, its-
   
   a. origin:
   
   b. nature:
   
   c. description:
   
   d. exposure to risk factors, if any.
3. The information provided must be accurate.

12.2.2 AP Reg 6

1. Taking into consideration its intended use, animal product must be free from-
   a. biological, chemical, and physical hazards in amounts that may be directly or indirectly harmful to humans or animals:
   b. extraneous objects, material, and substances of a kind not expected to be in animal product that is prepared or packed for trade in accordance with good trade practices:
   c. animal material in amounts that may be directly or indirectly harmful to humans and animals for which the animal product is intended.

2. For the purposes of subclause (1), specifications may specify-
   a. unacceptable hazards, objects, materials, and substances in relation to any type or class of animal product:
   b. acceptable or unacceptable levels of hazards, objects, materials, and substances in relation to any type or class of animal product.

12.2.3 AP Reg 9

The operator must ensure that animal material and animal product in their charge are processed and stored in a manner that minimises:

- the risks of contamination, spoilage or deterioration;
- the proliferation of pathogenic microorganisms; and
- the development of toxins.
12.2.4 AP Reg 17

All persons engaged in the carriage and delivery of animal material or animal product must as far as practicable ensure that the means of carriage and delivery are designed, made, maintained, and operated to minimise contamination or deterioration of animal material or animal product.

12.2.5 AC Spec 4(1)

*denatured animal material or product* means animal material or product that is clearly identified as not suitable for human consumption by-

a. being hashed or hogged so that it is not recognisable as suitable for human consumption; or

b. having added ink or stain, which is an approved maintenance compound for that purpose, intimately mixed throughout the animal material or product; or

c. had crude carbolic acid intimately mixed throughout the animal material or product; or

d. had cresylic disinfectant intimately mixed throughout the animal material or product; or

been treated in some other way that has been approved in writing by the Director-General as resulting in denaturing

12.2.6 AC Spec 32(2), (3) and (4)

(2) Bulk animal material or product may be transported in bulk transport units from a premises if-

a. it is contained in covered leak-proof bins or containers that are clearly labelled as not intended for human consumption; and

b. it is identified in an acceptable manner; and

c. it is *denatured* animal material or product; and

d. the systems of identification and security are fully documented.
(3) For the purposes of subclause (2)(c), rendered animal product is considered to be denatured animal material or product.

(4) Despite subclause (2), bulk animal material or product for further processing, including for rendering, transported between premises operating under risk management programmes must-

a. be contained in secure sealed leak-proof bins or containers that are clearly labelled as not intended for human consumption; and

b. be identified in an acceptable manner; and

c. the systems of identification and security must be fully documented.

12.2.7 AC Spec 73

1. Supplies of medium risk material must be denatured to ensure that they cannot be mistaken as being fit for any other purpose prior to dispatch for rendering.

2. Despite subclause 1, the denaturing of medium risk raw material is not required where the animal material or product-

a. is derived from fish or poultry being processed for human consumption; or

b. is derived from a dual operator butcher, or a homekill operation or a recreational service provider; or

c. is derived directly from premises operating under the Food Act; or

d. is derived from mammals and birds that have died in the field and is transported directly to the rendering operation; or

e. is derived from the processing of hides or skins; or

f. is transported in accordance with the requirements of clause 32(4).
12.3 Procedures (For Compliance)

12.3.1 Collection and transport

12.3.1.1 Raw animal material must be transported to the rendering operation in a timely manner so as to avoid excessive deterioration.

Animal material should be handled on a “first in, first out” basis except where the stability of the animal material allows otherwise.
Accumulation of animal material at a processing premises prior to dispatch to the rendering operation is considered standard practice.
Other factors also guide rendering operators to minimise the holding of raw material prior to rendering. Examples of this are an adverse impact on the quality of the final product (e.g. increased free fatty acid (FFA) content) and odour from the rendering process.

12.3.1.2 Vehicles and other equipment used for collection and transport of raw material must be cleaned prior to use.

12.3.2 Receipt of animal material and products

12.3.2.1 All documentation accompanying incoming animal material and products, including information necessary for the effective identification, traceability and inventory control of products, must be checked for completeness and accuracy.

12.3.2.2 All consignments must have a unique identification and/or label to enable traceability to be maintained.

12.3.2.3 All consignments must be entered in the inventory control system.
12.3.2.4 All incoming products must be checked for characteristics appropriate to the nature of the product (e.g. denatured) and any agreed specifications.

12.3.2.5 Equipment used to handle dead stock, during its preparation for rendering, must not be used outside that area.

This includes, but is not limited to knives, steels, or similar equipment.

12.4 Monitoring

The responsible person must carry out regular checks for compliance with documented procedures.

12.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- monitoring checksheets;
- documentation accompanying incoming consignments.

Refer to Part 2, section 17 of this COP for record keeping requirements.
13 Process Control – Thermal Processing

13.1 Purpose and Scope

To ensure that animal material and product is processed and stored in a manner that minimises its deterioration, and will not adversely affect the suitability for processing of animal material, or fitness for intended purpose of the animal product.

This Code of Practice covers rendering in general, including the rendering of minimal risk raw materials, which is a common input into fish meal and oil processing. Minimal risk raw material is animal material or product that does not result in any direct or indirect harm to animals on consumption. As a result the requirements relating to the thermal processing of minimal risk raw material are not as onerous as those for medium risk raw material. The requirements that only relate to the thermal processing of medium risk raw material are clearly identified in this section.

13.2 Mandatory Requirements

13.2.1 AP Reg 6

1. Taking into consideration its intended use, animal product must be free from-

   a. biological, chemical, and physical hazards in amounts that may be directly or indirectly harmful to humans or animals:

   b. extraneous objects, material, and substances of a kind not expected to be in animal product that is prepared or packed for trade in accordance with good trade practices:

   c. animal material in amounts that may be directly or indirectly harmful to humans and animals for which the animal product is intended.

2. For the purposes of subclause 1, specifications may specify-
a. unacceptable hazards, objects, materials, and substances in relation to any type or
class of animal product:

b. acceptable or unacceptable levels of hazards, objects, materials, and substances in
relation to any type or class of animal product.

13.2.2 AP Reg 9

The operator must ensure that animal products in their charge are processed and stored in
a manner that minimises:

- the risks of contamination, spoilage or deterioration;
- the proliferation of pathogenic microorganisms; and
- the development of toxins.

13.2.3 AC Spec 37(2)

Medium risk raw material must be further processed to eliminate any hazard to the
intended consumer prior to sale for animal consumption.

13.2.4 AC Spec 72

1. Medium risk raw material must be subjected to a thermal process, or otherwise treated
to destroy all vegetative bacteria, viruses and protozoa, and inactivate chemical
substances that are potentially harmful if consumed by animals.

2. The operator must ensure thermal processing or other treatment has been confirmed
as valid by a suitably competent person to demonstrate compliance with subclause (1).

13.2.5 AC Spec 74(1)

The operator must ensure all rendering operations result in product which is fit for its
intended purpose.
13.3 Procedures (For Compliance)

Medium risk material that has been subject to a thermal process but the time/temperature requirements were not met will generally be reprocessed. Alternative dispositions such as treating as waste, which is unfit for any purpose, may be used.

13.3.1 For all medium risk material, except for material derived from seafood, the operator must establish and document a schedule for thermal processing (including time and temperature parameters) that will subject all material to a thermal process that reaches a temperature of at least 90ºC for at least 10 minutes at all points in the raw material.

13.3.2 Despite 13.3.1, blood meal may be produced in a ring drier, vertical flash drier or equivalent drying system that achieves the following:

- Coagulation must involve heating to 88-92ºC for at least 5 seconds;
- During any dwell time before drying, but not exceeding 35 minutes, the coagulated blood must be kept at a temperature of 60-65ºC or hotter;
- Coagulated blood must be fed into the drier where the combustion temperature is not less than 350ºC and the exit air temperature is not less than 90ºC.

NZFSA identified that further investigation is required to determine what the current parameters for medium risk material (excluded material derived from seafood) achieve and establish the minimum necessary parameters. This investigation is identified as an industry issue project by the Meat Industry Association, who has assigned it a low priority.

13.3.3 For medium risk material derived from seafood the operator must establish and document a schedule for thermal processing (including time and temperature parameters) that will subject all material to a thermal process that destroys all vegetative bacteria, viruses and protozoa, and inactivates chemical substances that are potentially harmful if consumed by animals.
13.3.4 The validation of thermal processes applied to medium risk raw material must clearly describe:

- the factors affecting the destruction of vegetative bacteria, viruses and protozoa, and inactivation of chemical substances e.g. raw material particle size, moisture, pressure applied, temperature achieved, product inflows and residency times; and

- acceptable limits for each factor.

13.3.5 Equipment for the control and accurate monitoring of temperatures and other thermal processing parameters (e.g. time) used when processing medium risk raw material must operate at all times while thermal processing facilities are in use.

As mentioned in section 3, there are no specified time / temperature processing parameters for minimal risk raw material in this COP. Operators processing minimal risk raw material should provide equipment for the control and monitoring of temperatures and other thermal processing parameters (e.g. time) and operate this while thermal processing facilities are in use.

13.3.6 The operator must maintain security over the access to the programming of computer controlled devices, including a maintaining a register of all programmes and the occasions on which entry to the operating parameters was approved.

This requirement is intended to minimise unauthorised access to, and corruption of, the programme parameters. Systems that are under computer control should be verified using calibrated measuring devices.
13.3.7 Any vehicles, equipment or conveyance used in a raw material area must be thoroughly cleaned and sanitised before it can be used in a post thermal processing area.

13.3.8 Meals must be dried sufficiently to prevent the growth of any post-drying microbiological contaminants and the deterioration of the product during storage.

Meals should be dried to a moisture content of 10% or less.

13.4 Monitoring

The responsible person must carry out regular checks for compliance with documented procedures. These could include:

- monitoring checksheets;
- CCP records; and
- corrective action reports.

13.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures.

Refer to Part 2, section 17 of this COP for record keeping requirements
14 Process Control – Post Thermal Process Handling

Amendment 0

August 2008

14.1 Purpose and Scope

To ensure that animal material and product is processed and stored in a manner that minimises its deterioration, and will not adversely affect the suitability for processing of animal material, or fitness for intended purpose of the animal product.

14.2 Mandatory Requirements

14.2.1 AP Reg 9

The operator must ensure that animal products in their charge are processed and stored in a manner that minimises:

- the risks of contamination, spoilage or deterioration;
- the proliferation of pathogenic microorganisms; and
- the development of toxins.

14.2.2 AP Reg 17

All persons engaged in the carriage and delivery of animal material or animal product must as far as practicable ensure that the means of carriage and delivery are designed, made, maintained, and operated to minimise contamination or deterioration of animal material or animal product.
14.2.3 AC Spec 74

1. The operator must ensure all rendering operations result in product which is fit for its intended purpose.

2. The operator must ensure that post-treatment rendered animal product is protected from recontamination and deterioration.

14.3 Procedures (For Compliance)

14.3.1 Additives

14.3.1.1 Additives added to rendered products that are intended for animal consumption must be listed in Schedule 7, “Substances generally recognised as safe [GRAS] feed additives in oral nutritional compounds or safe ingredients in oral gastrointestinal-acting microflora-enhancing compounds”, of the Agricultural Compounds and Veterinary Medicines Regulations 2001 (ACVM Regs).

<table>
<thead>
<tr>
<th>Antioxidants listed on the GRAS register include:</th>
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<tr>
<td>- Butylated hydroxyanisole (BHA);</td>
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<tr>
<td>- Butylated hydroxytoluene (BHT);</td>
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<tr>
<td>- Ethoxyquin;</td>
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<tr>
<td>- Tocopherols.</td>
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<tr>
<td>Dimethylpolysiloxane, used as a defoaming agent, is also listed</td>
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<td>on the GRAS register.</td>
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</table>

14.3.1.2 All additives must be used in accordance with Schedule 7 of the Agricultural Compounds and Veterinary Medicines Regulations 2001 (ACVM Regs) and manufacturers’ instructions.

14.3.1.3 Additives must be kept in a designated area (e.g. shelf, cupboard, room) and kept separate from chemicals. This area must be kept clean and dry and maintained in a clean condition.
14.3.1.4 Additives must be stored in accordance with instructions provided on the label and/or by the supplier.

Additives should be checked before use to ensure they are within their recommended shelf life requirements (where relevant).

14.3.1.5 All containers of additives must be clearly labelled with the name of the additive.

14.3.2 All handling and storage equipment such as conveyors and bins must be adequately ventilated to minimise condensation.

Insufficient ventilation is likely to lead to condensation inside the handling and storage equipment. Combining sufficient condensation, warmth and meal with bacterial contamination is likely to create an endemic contamination “hot spot”, which will result in ongoing contamination of passing meal.

14.3.2.1 Any equipment, vehicle, or conveyance used in a raw material area must be thoroughly cleaned and sanitised before it can be used in a post thermal processing area.

14.3.2.2 Products must be stored in such a manner that:

- minimises deterioration of products;
- minimises damage to packaging;
- facilitates effective cleaning; and
- facilitates effective inventory control.
14.3.2.3 Products must be adequately protected from the elements and environmental contaminants during loading.

14.3.2.4 All documentation accompanying outgoing products must be complete and accurate, and provide the necessary information for the effective identification and traceability of the products.

14.4 Monitoring

The responsible person must carry out regular checks for compliance with documented procedures.

14.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- monitoring checksheets; and
- corrective action reports.

Refer to Part 2, section 17 of this COP for record keeping requirements.
15 Ruminant Protein Controls

Amendment 0
August 2008

15.1 Purpose and Scope

To ensure that operators are aware of their requirements under the Biosecurity (Ruminant Protein) Regulations 1999 including labelling requirements and the requirement to have a ruminant protein control programme, where relevant.

The Biosecurity (Ruminant Protein) Regulations 1999 aim to preserve New Zealand’s BSE-free status and manage the risk of a BSE outbreak. The regulations prohibit the feeding of ruminant protein (except dairy produce) in any form to ruminant animals. One of the objectives of these regulations is to minimise the risk of contamination of feed intended for ruminants in feed mills that utilise ruminant protein for other purposes.

General information on the ruminant protein to ruminants feeding ban is available on the Biosecurity New Zealand web site.

These Regulations are available at http://www.legislation.govt.nz/ and also include requirements on irrigation with wastewater from premises where ruminant protein is rendered, stored or used.

15.2 Mandatory Requirements – Animal Products Act

15.2.1 AC Spec 76 (4)

Rendering operators, who are required to have a ruminant protein control programme, as required under the Biosecurity (Ruminant Protein) Regulations 1999, must include this as a supporting system within their risk management programme.
15.3 Biosecurity (Ruminant Protein) Regulations 1999 Definitions

Not all definitions have been included here. Only those definitions necessary to explain how rendering operators fit within the Biosecurity (Ruminant Protein) Regulations 1999 have been included.

**feed**—

(a) means any matter produced as, or as part of, food for animals in premises that produce, render, or utilise ruminant protein; but

(b) does not include—

(i) protein-free tallow (if the maximum level of insoluble impurities does not exceed 0.15% by weight):

(ii) any derivative of the tallow described in subparagraph (i):

(iii) rennet:

(iv) dicalcium phosphate (if it contains no trace of protein or fat):

(v) peptides with a molecular weight of less than 10000 dalton:

(vi) amino acids:

(vii) pet food packaged for retail sale and labelled for feeding to dogs or cats

**feed supplier**—

(a) means a person who produces, trades in, or distributes feed; and

(b) includes a person who redesignates, as food for animals,—

(i) any food for human consumption; or

(ii) any byproduct.

**operator [B(RP)Regulations 1999 definition]** means the occupier of premises where ruminant protein is rendered, used, or stored and where—

(a) Non-ruminant mammalian, avian, or fish tissue is rendered for feeding to ruminants; or
(b) Feed intended for ruminants is produced:

**ruminant protein** means protein derived from the tissue of a ruminant, except dairy produce; and for this purpose—

(a) Tissue includes blood; and

(b) Dairy produce has the same meaning as in section 2 of the Dairy Industry Act 1952.

### 15.4 Summary of Mandatory Requirements and Procedures

#### 15.4.1 Ruminant Protein Control Programmes

Operators must operate under a registered Ruminant Protein Control Programme (RPCP) if they fall within the *operator [Biosecurity (RP) Regulations 1999]* definition above. This would mean that an operator answers yes to both the following questions:

- Do you, even occasionally, render ruminant tissue?
- Do you render non-ruminant tissue (such as poultry meal, feather meal, fishmeal etc.) that is sold as suitable for feeding to ruminants?

#### 15.4.2 Labelling

Any rendering operator who processes ruminant protein is required to meet labelling requirements under the Biosecurity (RP) Regulations 1999.

The type of notice that should appear on a feed bag that does not contain ruminant protein and will be fed to non-ruminant animals depends on how the non-ruminant feed is produced. This is explained in the frequently asked questions on the Biosecurity New Zealand [Labelling Requirements for Feed and Fertiliser](#) web page, which includes the following clarification:

- If the feed is manufactured in premises that do not render, use or store ruminant protein – the *Biosecurity (RP) Regulations 1999* do not apply and the feed bags do not need to carry any notice. However, to help buyers to make an informed decision, it is recommended that the bags be labelled ‘can be fed to ruminants’.
15.5 Procedures (For Compliance)

15.5.1 Ruminant Protein Control Programmes

Information on ruminant protein control programmes (RPCPs) is available on the Biosecurity New Zealand web site. This requires operators to meet specific RPCP eligibility criteria relating to dedicated ruminant feed processing line including:

- a) complete physical separation of feed transfer lines and feed processing equipment used for producing feeds for ruminants from those used for producing non-ruminant feeds containing ruminant protein;
- b) physical separation from arrival on the premises of ingredients to bulk out load or bagged packing, as well as during storage;
[The feed processing equipment referred to above includes, but is not limited to, load-in bins, weigh batch mixer, press bins, press, augers, chain drags, elevators, buckets, paddles, mixers, blenders, dump hopper, bagging machines and storage silos.]
- c) if not adequately physically separated, intake pits for risk materials with barrier(s) of appropriate design and dimensions between it/them and the intake lines for ruminant feed ingredients. This is to prevent wind-borne contamination;
- d) application of due diligence to prevent contamination of ruminant feed during their transport at both pre-mill as well as post-mill stages;

Production of both ruminant and non-ruminant feeds on the same premises, within the same building, is acceptable so long as physical separation of feed transfer lines and feed processing equipment is achieved.

15.5.2 Labelling

Information on the labelling requirements that operators must meet under the Biosecurity (RP) Regulations 1999 are outlined on the following web pages:

- Labelling Requirements for Feed and Fertiliser; and
- Ruminant Feed-Guide for Feed Retailers and Distributors.
15.6 Records

Regulation 15 of the Biosecurity (RP) Regulations 1999 outlines the record keeping requirements for feed suppliers.

Refer to Part 2, section 17 of this COP for record keeping requirements.
16 Packaging and Labelling

Amendment 0
August 2008

16.1 Purpose and Scope

To ensure that packing of products results in minimal contamination from the packaging materials as a consequence of their composition, use, handling or storing. The section covers all activities relating to the quality of packaging materials, the handling and protection of those materials and the handling and protection of products during packing operations.

To ensure that labelling clearly relates to the animal material or animal product to which it applies and contains information that accurately describes the animal material or animal product to which it applies and ensures compliance with relevant legislation.

16.2 Mandatory Requirements

16.2.1 AP Reg 8

Animal product must not be associated with a false or misleading representation of any kind concerning its, fitness for intended purpose, nature, origin, composition, ingredients or other constituents, proportion of ingredients or other constituents.

16.2.2 AP Reg 16

All risk management programme operators, operators of animal material depots, and other categories of person specified in specifications for the purposes of this regulation must ensure that any packaging materials (including reusable packaging and inner and outer packaging of any kind) used for animal material, animal product, and associated things are designed, made, stored, and used in a manner that-

a. maintains the status of the animal material as suitable for use in processing; and

b. maintains the status of the animal product as fit for its intended purpose; and

c. minimises contamination of the animal material or animal product.
16.2.3 AC Spec 26

1. The composition and, where appropriate, the conditions of use of packaging must either:

a. comply with the requirements specified in the current US Code of Federal Regulations, Title 21, Parts 170–199 (21 CFR 170–199), that applies equally to coatings and linings of containers and cartons where these are the direct product contact surface; or

b. comply with the requirements specified in the current "Australian Standard for Plastics Materials for Food Contact Use, Australian Standard AS2070–1999"; or

c. be determined by the operator to be suitable for use, based on evidence provided by the packaging manufacturer and an analysis of hazards and other risk factors from the packaging.

2. In the case of a or b, the risk management programme must state the full reference to the regulation, part, section or standard with that the packaging complies.

3. If the packaging is damaged such that suitability for processing of animal material or fitness for intended purpose of animal product may be affected, the animal material or product must be handled in a manner that minimises contamination and the damage to the packaging rectified; or be appropriately disposed of.

4. Any packaging material that is reused or recycled must be fit for purpose.

16.2.4 AC Spec 28(1)

Mandatory labelling must be clear, legible, indelible, and use terms that are commonly used in the English language or other language approved by the Director-General.

16.2.5 AC Spec 28(2)

No animal material, animal product or packaging material to which this notice pertains may be labelled or marked in any way that could be misleading as to-

a. the intended purpose of any animal material, animal product or packaging material; or

b. the fitness of any animal material or product for animal or human consumption; or

c. the fitness of any animal material or product for processing for animal or human consumption; or

d. the nature of any animal material, animal product or packaging material.
16.2.6 AC Spec 28(3)

If the suitability of animal material for processing or the fitness of animal product for its intended purpose changes after it has been identified, all labelling and accompanying documentation must be amended, updated or replaced to reflect the new status of the animal material or product. This must be carried out at the earliest opportunity, and must be prior to the release of the animal material or product from the premises.

16.2.7 AC Spec 28(4)

All animal material or product, which contains animal material or product from imported animals, must be identified as such.

16.2.8 AC Spec 29(1)

Operators must ensure all animal material or product intended for animal consumption are clearly identified to indicate that material or product is not intended for human consumption when it leaves the premises.

16.2.9 AC Spec 29(2), (3)

(2) Operators of premises who also process animal material or product for human consumption in the same premises, must clearly identify animal material or product for animal consumption when it enters and while it is in the premises. The identification must clearly indicate that material or product is not for human consumption.

(3) Operators of premises described in subclause 2 must keep all animal material or product intended for animal consumption separate until suitably packaged, from the processing, packing and handling of animal material or product intended for human consumption.

16.2.10 AC Spec 31

An operator must ensure transportation outers containing animal material or product for animal consumption when leaving the premises are labelled to clearly identify:

- the contents are not intended for human consumption;
- the animal material or product name or description;
- storage directions where necessary to maintain the fitness for its intended purpose,
• lot identification, where applicable; and

• the name and address of the operator.

16.2.11 AC Spec 32(1)

Bulk transportation units used for the transportation of unpackaged bulk animal material or product must be labelled with the information specified in clause 31, except where it is impractical to label the unit, then the information must be provided in accompanying documentation.

16.2.12 AC Spec 76(1)

Any rendered product which contains protein derived from the rendering of ruminant animal material or product must be clearly labelled to this effect in accordance with the Biosecurity (Ruminant Protein) Regulations 1999.

16.3 Procedures (For Compliance)

16.3.1 Packaging

• Packaging material must be protected from contamination during handling, transporting and storage.

• Packaging must effectively protect the product from contamination during the handling, transporting and storing of the product.

• Packaging material must be dispensed, during the packing of products, in a manner that protects the materials and the product from contamination.

Reusable containers must comply with the requirements for cleaning and sanitation outlined in section 5.

• Packaging materials must be protected from contamination after manufacture until the point of use.

Outer protective covering materials should not be removed until immediately before the packaging material is taken into the area where it will be used.
• When the packing of packaged product becomes damaged steps must be taken to minimise product contamination resulting from the damage. Consideration should be given to storing the affected product in a separate area or repacking.

16.3.2 Labelling

• The operator must develop labelling procedures to ensure that:
  i. all information printed on a label or on packaging is correct and accurate; and
  ii. the correct label is applied to the appropriate product; and
  iii. where product can not be practicably be labelled, all information provided in accompanying documentation is correct and accurate.

Labelling requirements relating to ruminant protein are explained in section 15.

16.4 Monitoring

The responsible person must regularly check compliance to documented procedures.

16.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

• daily checklists;
• register of packaging suppliers;
• supplier guarantees for packaging;
• label checklists;

Refer to Part 2, section 17 of this COP for record keeping requirements.
17 Document Control and Record Keeping

Amendment 0
August 2008

17.1 Purpose and Scope

To ensure that all RMP documents, including records, are managed under a document control system that meets the requirements of the Animal Products Act 1999.

17.2 Mandatory Requirements

17.2.1 RMP Spec 19 (1)

Every document or part of a document that forms part of a risk management programme must be:

a. legible;

b. dated or marked to identify its version;

c. authorised (signed) prior to use, either directly or within the document control system, by:

   i. the operator,

   ii. the day-to-day manager of the programme, or

   iii. a person nominated to do so in the programme’s document control system; and

d. available when required to any person with responsibilities under the programme.
The operator must have procedures for effective control of the documents that form the risk management programme including how:

a. significant and minor amendments are made to the risk management programme so that the programme is current and reflects the actual operation;

b. the amendments, or the nature of the amendments to the programme are identified or described; and

c. documents are authorised prior to issue and use; and

d. all amended parts of the risk management programme are replaced with the current versions at all distribution points without unnecessary delay after authorisation and, where necessary, registration in accordance with section 25 of the Act.

The operator must retain for four years, one copy of all obsolete documents from a registered risk management programme in a manner that protects the documents from damage, deterioration or loss, and prevents confusion with current documents.

The operator must ensure that the registered risk management programme and all reference material relating to the risk management programme, and any archived documents are readily accessible, or can be retrieved and made available within two working days of any request to:

a. recognised persons; and

b. animal product officers; and

c. the Director-General; and

d. persons authorised by the Director-General.
17.2.5 RMP Spec 20(1); AC Spec 34(2)

The operator must include record keeping procedures in the risk management programme to ensure that all records necessary to demonstrate compliance with the documented programme are

a. legible, and

b. stored for four years, or for the shelf life of the product to which the records relate (whichever is longer), in a manner which protects the records from damage, deterioration or loss; and

c. can be retrieved and made available to persons defined in subclause (3) within two working days of any request.

17.2.6 RMP Spec 20(2)

Records relating to the risk management programme’s monitoring, corrective action and operator verification activities must include:

a. the date and where appropriate the time of the activity;

b. a description of the results of the activity; and

c. a means to identify the person or persons who performed the activity.

17.2.7 RMP Spec 20(3)

The operator must make all records relevant to the risk management programme available to the following persons on request:

a. recognised persons;

b. animal product officers;

c. the Director-General; and

d. persons authorised by the Director-General.
17.3 **Procedures (For Compliance)**

17.3.1 Record keeping

17.3.1.1 All GOP and processing records must be kept, including inventories of raw materials and finished products.

17.3.1.2 Electronic records must be backed up and protected from corruption, damage or loss. The person entering the data must be identified according to systems developed for the protection of electronic records.

17.3.1.3 Records must:

- accurately reflect the observations made;
- facilitate verification; and
- be documented on permanent materials.

Consideration should also be given to the paper on which records are kept and its durability (pen does not write well on wet paper), its suitability for storage (thermal papers can fade over time). Pencil is not suitable for recording information because it is easy to erase or alter.

17.3.1.4 Any alterations made to records must be made alongside the original entry and initialled by the person amending the record.

The use of white out products (such as Twink™) is not acceptable as it is not possible to see what the original entry was.

17.3.1.5 The manner in which the date and time are documented in the record must be appropriate to the activity being monitored. For some observations (e.g. process temperatures) the exact date and time must be recorded. However, for other
observations (e.g. checking compliance with protective clothing requirements) a more
general record over a specified time period may be acceptable.

17.3.2 Document Control

17.3.2.1 The operator must keep a register of all RMP documents showing the
current version and/or date of issue. This register must include the site plan and all record
forms (e.g. blank check sheets used for monitoring and other operator verification
activities).

It is common practice to include both the version number and date of issue of each RMP
document.
If more than one controlled copy of the RMP is issued, each set of documents should have
additional identification showing the copy number. The operator should maintain a register
of controlled copies showing who is responsible for each copy.
Authorisation of version control may be shown in several ways, including:
- signature and date on the cover page of each RMP document;
- initials and date in the header or footer of every page;
- signature and date on the document register.

17.3.2.2 Details of all amendments must be recorded in an amendment register.

The amendment register may be presented in a table with the following headings:
document name or reference, details of the amendment, reason for amendment, date of
change, person approving the amendment.

17.3.2.3 Amendments to RMP documents must be clearly identified.

Options for identifying amendments include use of italics, highlighting the amended text, or
identifying the amended section(s) in the amendment register.
17.3.2.4 Electronic versions of RMP documents must be protected with an effective back up system.

Operators may wish to keep electronic copies off site in case of major loss.

17.4 Monitoring

The responsible person must regularly check compliance to documented procedures.

The operator should check, at least annually, that the documented procedures are appropriate.

17.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- amendment records;
- up to date list of documents; and
- record forms.

Record keeping requirements are outlined earlier in this section.
18 Traceability and Inventory Control

18.1 Purpose and Scope

To ensure that traceability and inventory control systems are developed and implemented effectively.

18.2 Mandatory Requirements

18.2.1 AP Reg 18 (1)

All operators of risk management programmes, all exporters, and all other categories of person required by specifications to do so, must have a tracking system that:

- allows for the identification of animal material and animal product; and

- enables the movement of the animal material and animal product to be traced from the supplier and the operator’s business premises to the next recipient of the animal material or product.

18.2.2 AC Spec 35

The consigning operator must have a documented system to ensure the traceability of animal product, in accordance with the requirements of regulation 18 of the Animal Products Regulation 2000, or its replacement legislation.
18.3 Procedures (For Compliance)

18.3.1 The operator must document systems for tracking and control of inventory of animal material and products processed and/or stored within the boundaries of the RMP.

18.3.2 Inventories must be maintained for all animal materials and products, including non-compliant animal materials and products.

18.3.3 All outgoing products must be clearly identified and accompanied by appropriate documentation.

18.4 Monitoring

The responsible person must regularly check compliance to documented procedures.

18.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- production records;
- inventory records including receipt and dispatch of materials and products; and
- observations from monitoring and any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Refer to Part 2, section 17 of this COP for record keeping requirements.
19 Handling of Non-complying Products, and Recall

Amendment 0

August 2008

19.1 Purpose and Scope

To ensure that non-complying products are handled in a manner that facilitates their identification and traceability, and prevents contamination and deterioration of other products.

To ensure a system is in place for the recall from distribution or sale of products that are not fit for intended purpose.

19.2 Mandatory Requirements

19.2.1 RMP Spec 14 (1)

For the purposes of section 17(2)(c) of the Act where, due to the nature of the animal material or animal product it is possible to recall it from trade, distribution or consumers, a risk management programme must contain a recall procedure, including:

- the criteria for deciding when a recall will be initiated; and
- how retrieval and disposition of the relevant animal material or animal product will be managed.
19.2.2 RMP Spec 14(2)

A risk management programme must contain a system for notifying the following people as soon as possible when animal product is recalled from trade, distribution or from consumers because it is not or may not be fit for its intended purpose:

- the Director-General; and
- the recognised risk management programme verifier or recognised risk management programme verifying agency.

19.2.3 AP RMP Spec 13(3)(a)

A risk management programme must contain a procedure for notifying the recognised risk management programme verifying agency in writing, without unnecessary delay, when there is any significant concern about the fitness for intended purpose of animal material or animal product.

19.3 Procedures (For Compliance)

19.3.1 Non-complying animal material or products (e.g. damaged, spoiled, deteriorated or contaminated products) must be:

- clearly identified, separated from other products; and

This is to prevent the contamination and deterioration of other animal material and products, and contamination of the processing environment.

Non-complying animal material or products may be separated from other animal material and products by holding them in a separate room.

- assessed by a competent person, who will determine an appropriate disposition;

In certain cases the assessment may need to be undertaken by the regulator.

Non-complying animal material or product should be held within the premises until the disposition has been determined.
19.3.2 Operators must designate a person to take overall responsibility for any recall of animal product and allocate recall tasks to appropriately skilled people.

The person with overall responsibility may be the day-to-day manager of the RMP or a person at a senior level of responsibility within the operation.

19.3.3 For more information on establishing and implementing recall procedures, refer to the recalls section of the RMP Manual.

19.4 Monitoring

The responsible person must regularly check compliance to documented procedures.

Following a recall, the operator should review the procedures to determine their effectiveness and make changes, if necessary.

19.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- inventory;
- incident reports; and
- recall records.

Refer to Part 2, section 17 of this COP for record keeping requirements.
20 Operator Verification and Other Operational Requirements

Amendment 0
August 2008

20.1 Purpose and Scope

To verify compliance to documented procedures and to confirm the effectiveness of the RMP by ensuring that operator verification, including internal audits, are undertaken at the required frequencies.

To ensure that other operational requirements (i.e. notification, amendments) are met by the operator.

20.2 Mandatory Requirements

20.2.1 RMP Spec 16

(1) A risk management programme must specify an operator verification system including –

a. the activities to be performed in relation to the risk management programme, and their frequency;

b. any actions to be taken when all or part of the risk management programme is not effective; and

(2) A risk management programme must contain a mechanism for ensuring that, wherever possible, persons carrying out operator verification are independent of the activities being verified.
20.2.2 RMP Spec 13(1)

A risk management programme must contain a procedure for notification of the Director-General in writing, without unnecessary delay, of any change to the name or position or designation of the person(s) responsible for the day-to-day management of the programme.

This change will be a minor amendment to the RMP and the notification should be sent to the Programme Manager (Production and Processing), Approvals and ACVM Group by email or letter.

20.2.3 RMP Spec 13(2)

A risk management programme must contain a procedure for notification of the Director-General of any emerging, new or exotic biological hazards or new chemical hazards that come to the operator's attention in relation to the programme as soon as practical after their discovery.

The requirement to notify the Director-General may be met by notifying the recognised RMP verifying agency or the New Zealand Standards Group of NZFSA directly.

20.2.4 RMP Spec 14(2)

A risk management programme must contain a system for notifying the following people as soon as possible when animal material or animal product is recalled from trade, distribution or from consumers because it is not or may not be suitable for its intended purpose-

(a) Director-General; and

(b) the recognised risk management programme verifier or recognised risk management programme verifying agency.
20.2.5 RMP Spec 13(3)

A risk management programme must contain a procedure for notifying the recognised risk management programme verifying agency in writing, without unnecessary delay, of the following issues relating to the operation of the programme:

a. any significant concern about the fitness for intended purpose of animal material or animal product:

b. where the cumulative effect of minor amendments necessitates the registration of a significant amendment to the risk management programme as provided in section 25 of the Act:

c. where the risk management programme is no longer considered to be effective:

d. where the premises identified as being used by the programme are not or no longer suitable for their use:

e. where anything within the physical boundaries of the programme is used for additional purposes or by other operators and the programme has not adequately considered relevant hazards or other risk factors.

20.2.6 RMP Spec 22 (1)

The following activities that result in changes to the risk management programme require registration as an amendment in accordance with section 25 of the Act (except where they are done on a trial basis and the affected animal material or animal product is not traded):

a. making major alterations to the processing facilities or equipment which may impact on fitness for intended purpose of the animal material or animal product:

b. relocating processing operations to a new physical address (except where this is already permitted for mobile premises and vessels):

c. processing animal material or animal product that is not covered by the risk management programme, except:

- where the product and process are similar, and
• a documented risk factor identification and hazard analysis has shown that all risk factors associated with that animal material or animal product are already adequately addressed by the risk management programme:

d. setting up a new process or process modification that is not covered by the risk management programme, except:

• where the process or process modification is similar to existing processes, and

• a documented risk factor identification and hazard analysis has shown that all risk factors associated with that process are already adequately addressed by the risk management programme:

e. making any other changes that introduce new risk factors, or adversely impact on existing risk factors:

f. merging two or more registered risk management programmes:

g. splitting a registered risk management programme into two or more risk management programmes:

h. adding a business to a multi-business risk management programme except where the Director-General’s approval under section 17A of the Act applies to a type of business, premises or place rather than to specific businesses.

20.2.7 AC Spec 75

Where appropriate, thermally processed meal products for animal consumption must be subjected to microbiological surveillance to determine the effectiveness of the thermal treatment and to demonstrate the product has not be subject to recontamination.
20.3 Procedures (For Compliance)

20.3.1 Internal audits

20.3.1.1 Internal audits must be undertaken by the person responsible at an appropriate frequency to ensure compliance with the documented RMP, including GOP and process control procedures, and to identify and correct any problems.

20.3.1.2 A review of the RMP must be undertaken at least annually.

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The review of the entire RMP may be undertaken as a single operation or it may be staggered throughout the year based on an established timetable (e.g. review specified parts of the RMP each month).

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20.3.1.3 The RMP must also be reviewed when:

- significant changes are made to the product, process or premises; or
- the RMP or parts of it are not working effectively.

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Indications that the RMP or parts of it are not working effectively include:
- a series or trend of non-compliance or out of specification product test results;
- customer complaints;
- product recall;
- failed external verification audit.
20.3.1.4 Observations made during the internal audit and corrective actions taken must be recorded.

a) Operators should first review their procedures and systems to ensure that these systems are in compliance with regulatory requirements; then check that the systems are being followed.
b) Internal audits should consist of a review of records, reality checks, and confirmation that deficiencies or non-compliances identified from the last audit have been rectified.
c) Records should be reviewed for:
   - completeness and accuracy of required information;
   - documentation of corrective actions;
   - any trends, new hazards, recurring problems; and
   - compliance with documented control procedures.
d) Reality checks should include observation of:
   - workers' performance and compliance with documented hygienic procedures and operating procedures,
   - compliance with process parameters such as processing times and temperatures, and
   - hygienic status of the premises internal and external environment, facilities and equipment.
e) All deficiencies found at previous audits should be followed up.

20.3.1.5 When ongoing or recurring non-compliances occur, the operator must:

a. investigate to determine possible causes of non-compliance;
b. take appropriate corrective actions to regain control and prevent recurrence of the problem;
c. increase surveillance of the system; and
d. review the RMP or the relevant GOP programme and make necessary changes.
20.3.2 Amendments to the RMP

20.3.2.1 Significant amendments to the RMP must be evaluated and registered.

20.3.2.2 When the operator determines that an amendment is not significant, changes may be made at any time to update the RMP document(s).

Guidelines for determining significant amendments and for deciding whether an amendment is significant or minor are documented in Appendix G of the RMP Manual. The Manual also provides examples of significant and minor amendments. If there is still some doubt as to whether proposed changes are significant or not, you should contact an RMP evaluator or the RMP Help Desk. The document control procedure may also allow for small changes to be made by hand. In such cases, the nominated person should sign and date the changes to indicate they are legitimate. This may occur at the time of annual review or more often as required.

20.3.3 Microbiological surveillance

NZFSA has recently commenced developing a Salmonella Risk Management Strategy. This Strategy is likely to have a number of objectives, including:
- a specified reduction, likely to be 30%, in the incidence of foodborne human salmonellosis 30% in the next five years; and
- make well-informed risk management decisions on appropriate control measures and their implementation.
This Strategy may highlight that additional controls are required on the control of Salmonella in animal feeds intended for food producing animals. This in term may lead to additional controls on rendering operations. Any proposed changes to the current rendering requirements will be subject to consultation with the industry.

20.3.3.1 Rendered meals, derived from medium risk raw material, that are intended for animal consumption must be subject to routine post-production testing for
Salmonella. This testing must be carried out at least weekly on rendered meals from rendering premises. Test results must be retained at processing premises.

20.3.3.2 The weekly rendered meal sample must be a composite of samples of approximately 250g collected on every production day.

20.3.3.3 The daily production samples must be taken at load-out or bagging. If neither of these processes occurs, the sample must be collected from bulk storage bins.

Following periods of plant shutdown, or plant cleaning, when Salmonella testing has not been carried out on a weekly basis, any operator may undertake environmental testing after the shutdown or plant cleaning.

20.3.3.4 The product must be tested against the microbiological criteria of Salmonella: absence in 25 g: n=5, c=0, m=0, M=0 (i.e. not detected / 25g.) where:

n - means the number of units comprising the sample;

m - means the 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 - means the 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 - means the 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).

20.3.3.5 All laboratories performing analyses for Salmonella must have International Accreditation New Zealand (IANZ) accreditation for the analysis of Salmonella in accordance with the test method identified in the LAS (Laboratory Accreditation Scheme).
It is recommended that other microbiological testing should be done by an IANZ (International Accreditation New Zealand) or LAS (Laboratory Accreditation Scheme) accredited laboratory.

20.3.3.6 Where any sample is positive for *Salmonella* the operator must:

- conduct an immediate review of hygienic procedures focusing on potential post thermal processing contamination; and

The review should include:
- environmental sampling to assist in pinpointing the source of contamination. This should include problem areas such as drains, cracks and crevices;
- reassessing access to post thermal processing areas;
- processing and product handling procedures;
- cleaning and sanitising programmes.

- consider the fitness for intended purpose of the animal product.

The operator may consider:
- advise the buyer;
- the additional of an antimicrobial agent such as Sal-curb™;
- diverting to an alternative end use; or
- reprocessing.

20.3.4 Moisture content

20.3.4.1 Moisture content measurements must be performed by a suitably skilled person using documented methodologies (including calibration procedures) and/or calibrated equipment.

20.3.5 Notification procedures
20.3.5.1 The day-to-day manager of the RMP must contact the NZFSA without delay when it is necessary to notify the Director-General for reasons specified in RMP Spec 13(1) and 13(2), and (refer to sections 20.2.2 and 20.2.3 of this document).

Such notifications should be sent to the Programme Manager (Production and Processing), Approvals and ACVM Group.

20.3.5.2 The day-to-day manager of the RMP must notify the recognised risk management programme verifying agency in writing (e.g. by email or letter) as required by and for reasons specified in RMP Spec 13(3) (refer to section 20.2.5 of this document).

20.4 Monitoring

The responsible person must regularly check compliance to documented procedures.

20.5 Records

The operator must keep relevant records demonstrating compliance with documented procedures. These could include:

- internal audit reports;
- RMP review records;
- other information or evidence relating to operator verification activities (e.g. test results);
- copies of any communication sent to the NZFSA or the recognised RMP verifying agency; and
- any corrective action taken (including restoration of control, product disposition and prevention of recurrence).

Refer to Part 2, section 17 of this COP for record keeping requirements.