Industry Standard 3/

Industry Agreed Standard 3

(IS3/IAS3)

Hygiene and Sanitation

Prelims

Amendment 3

May 2004

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Disclaimer

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Preface

Industry Standard 3 and Industry Agreed Standard 3 have been developed jointly by Industry, MAF Verification Agency and NZFSA and is endorsed by the Meat Industry Standards Council and Venison Industry Standards Council.

It is the New Zealand standard for quality assurance for premises licensed, in terms of the Meat Act 1981, and premises approved by NZFSA .

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

Review of Industry Standard 3 / Industry Agreed Standard 3

This industry standard shall be regularly reviewed according to a schedule held by NZFSA (Animal Products).

The co-ordinator welcomes suggestions for alterations, deletions or additions to this standard, to improve it or make it more suited to Industry needs. Suggestions should be sent to the co-ordinator on the form on Page P.10 together with reasons for the change and any relevant data.

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Suggestions for Changes

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_____

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Industry Standard 3 / Industry Agreed Standard 3 : Hygiene and Sanitation

Section	Suggested Improvements

Signature:	Date:
Please post to: Judy Barker Assistant Director Animal Product Standards New Zealand Food Safety Authority PO Box 2835 Wellington	**Acknowledgement of receipt:** Signature: Date:

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To update this publication when you receive an amendment, remove the appropriate outdated pages, destroy them, and replace them with the pages from the new issue.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 Technical Supervisor.

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1 Introduction

Amendment 3

May 2004

Scope

Industry Standard 3 / Industry Agreed Standard 3 (IS3/IAS3) lays down the requirements for the establishment and the maintenance of a hygienic production environment in premises licensed under the Meat Act 1981, or approved by NZFSA, excluding fish packing houses, and whole fish processing premises.

IS3/IAS3 addresses sanitation and hygiene in the context of the following elements which can directly or indirectly contaminate product or, where appropriate, byproducts in a premises.

The elements are:

- the maintenance of the facilities so that the premises complies with the hygienic conditions approved at the time of licensing;
- the establishment and maintenance of a state of hygiene appropriate for the conduct of operations when products and, where appropriate, byproducts are being processed;
- the work practices of personnel that can contribute to cross contamination of product from the environment and from other products or byproducts;
- the requirements for the hygiene of personnel, including the health of personnel and the potential for unhealthy people to contaminate product.

1.1 Outcome

A hygienic environment and sanitary practices shall be established and maintained in the premises in order to minimise food safety hazards and to comply with regulatory requirements for the processing of product or byproducts.

1.2 Definitions

All definitions contained in Section 2 of the Meat Act 1981 and pursuant regulations shall apply.

Air-borne contaminant is any smoke, dust, fumes, odour, gas or biological agent. This includes:

- smoke from any source;
- dust, sand or ash from any source, including volcanic ash;
- gases from any source, including internal combustion engines, welding and unfiltered exhausts from pneumatic tools;
- fumes from any source, including ammonia and refrigerants; and
- odours from any source, including chemical compounds authorised for use in premises;
- air-borne microbes;

but does not include air-borne contaminants naturally associated with the usual processing or handling of the type of food.

Authorised chemicals are chemicals that may be used in premises licensed under the Meat Act 1981 which are either listed in Manual 15 or are chemicals for which the manufacturer holds a current letter of authorisation issued by or on behalf of NZFSA.

Clean means the absence of visible contaminants on food or byproduct contact surfaces or surrounding walls, floors, equipment or protective clothing.

Cleaning is the removal of visible contaminants using physical or chemical aids.

Competent person is a person with any specific competency as defined in any standard, specification or requirement, who may provide expert technical advice within the scope of the particular standard, specification or requirement. In relation to potable water, is a person or organisation who has competency in the provision and maintenance of potable water supplies.

Contaminant is any biological agent, chemical agent, foreign matter or other substance not intentionally added to food, or byproduct, which may compromise food safety or suitability for purpose. Includes vermin and microbial agents.

Contaminated means that a contaminant on any product, byproduct, piece of equipment or article, including protective clothing, has exceeded any standard or, in the absence of a standard, the tolerated level for that contaminant on the product or byproduct being produced at the time.

Dry food is a food which has a water activity (a_w) less than the minimum growth water activity of the micro-organisms of significance for the particular food.

External environment is made up of those areas of the premises that are not food or inedible processing areas, food support areas, stores or freezers. The external environment includes, but is not restricted to, the grounds, roadways, engine rooms, engineering facilities, water treatment plant, waste treatment facilities, ponds, stock and animal holding facilities, laundries, administration facilities, disused parts of the premises and areas under construction.

Food is any substance as defined in the Food Act 1981, whether processed, semi-processed or raw and intended for human consumption. The definition of food includes product as defined in the Meat Act 1981.

Food area is an area where animals are slaughtered or dressed, or unprotected or wrapped food is processed, packed, stored or transported.

Food contact surface is any surface intended to come into direct contact with food whose design, composition and sanitary preparation is such that the surface presents minimal risk from contamination during its use.

Food support facility is any facility:

- through which unprotected food, food contact materials/items, packaging, protective clothing, or processing equipment may pass; or
- where unprotected or wrapped ingredients, packaging, chemicals, protective clothing, or processing equipment may be held and/or prepared; or
- where processing equipment is cleaned and/or sterilised prior to reuse.

Hazard is a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.

Hygiene is a state of cleanliness of a food area or food support facility as measured by levels of contamination. Hygiene includes the cleaning and the removal or reduction in levels of contaminants.

- Hygiene, in relation to the carrying out of processing operations, includes any condition of the production environment, including the condition of equipment that can affect the hygienic status of food or byproducts throughout processing.

- Hygiene, in relation to personnel hygiene, involves the control of contamination of food and byproducts by people and includes food-borne diseases, clothing and equipment, and the hygienic practices adopted by personnel when in contact with food or byproduct.

Verification Agency means a body charged with the responsibility of ensuring that the requirements of New Zealand acts, regulations, NZFSA specifications, and importing country requirements are implemented and adhered to by Licensees and other persons/activities to which the legislation applies.

Minimise means to have taken all practical steps to substantially reduce the potential hazard of concern.

Non-food contact surfaces includes:

- surfaces not approved for food contact, e.g. walls, structures, fixtures and equipment, such as columns, floors, doors, door jambs, gantries, scaffolding, steps, rise and fall stands, and certain fixed or moveable equipment;

- coatings and materials that are not approved for food contact;

- uncleaned surfaces, e.g. dirty food surfaces, contact points before inspection, contaminated food or personnel, carcasses prior to post-mortem inspection, waste water.

NZFSA means New Zealand Food Safety Authority

Potable water is water that complies with the Drinking Water Standards for New Zealand 1995, Ministry of Health (NZDWS95), together with any later editions of, or amendments to those standards.

Premises in respect of the use of the term premises, this applies only to the premises as defined in any document relating to its licensing, or approval by NZFSA.

Pre-operational hygiene assurance programme is a systematic on-site evaluation of all food areas and food support areas, to ensure that an acceptable state of hygiene is present before the start of processing.

Process scraps includes discarded edible product trimmings and inedible or condemned material where diseased or defective material has been removed from product before or after inspection.

Production criteria includes any procedure, set of procedures or processing method, and their respective process parameters and control parameters, for the processing of a product or byproduct. The process parameters and control parameters will include measurements and tolerances.

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

Sanitary is any condition that has a direct or indirect bearing on hygiene, including the condition of the plant, the equipment and the facilities.

Sanitation, in relation to premises, includes all activities that are required to maintain the sanitary state of the premises to the specifications, standards or requirements which were laid down as a condition of licensing.

Sanitising is the application of an authorised chemical or physical agent to a clean surface, with the intention of reducing microbial contamination to an acceptable level.

Shall expresses a mandatory requirement of this standard.

Should/may expresses a recommended provision which when followed may assist in achieving the required outcome.

Sterilising in relation to equipment means to clean by means of water (at the point of use) at not less than sterilising temperature.

Sterilising temperature is not less than 82°C.

Technical Supervisor means a person with the primary responsibility for the Verification Agency at the premises level.

Trained person, with regard to chemicals, is a person who is trained to understand the nature of all the chemicals held on the premises, their intended purpose and all conditions for their use.

Vermin is any free-living animal which is not part of the normal operation of any premises. The term includes, but is not restricted to, birds, rodents, other mammals and insects.

Washed means the use of flowing water to remove all visible contamination.

1.3 General Principles

1.3.1 Cross references

The requirements for hygiene and sanitation of premises described in this standard should be applied in conjunction with the requirements for quality assurance described in Industry Standard 8 / Industry Agreed Standard 8 (IS8/IAS8).

While it is desirable that all documented systems are developed according to the standard in IS8/IAS8, failure to do so should not preclude the adoption of the requirements of this industry standard. The Director Animal Products will, therefore, permit a lesser standard of documentation for premises operating under this industry standard. It is recommended that the principles in IS8/IAS8 be used for documented systems.

1.3.1.1 The requirements for the maintenance of premises sanitation shall be read in conjunction with IS2/IAS2.

1.3.1.2 The definition of food, including additives and ingredients, shall be read in conjunction with the relevant parts of the Food Act 1981 and pursuant regulations.

1.3.1.3 The requirements for the health of personnel shall be read in conjunction with the Heath Act 1956, or any superseding legislation, and pursuant regulations and directives.

1.3.1.4 The specific requirements of importing countries shall be read in conjunction with Overseas Market Access Requirements.

1.3.2 Customised processes, experimentation, hazard analysis and critical control point systems (HACCP) and new technology

Where any outcome required by this standard can be achieved using alternative general or specific principles to those outlined for a particular outcome, then the alternative principles are permitted, provided they are fully validated within the context of IS8/IAS8: Sections 3 and 5, and they comply with all relevant regulatory outcomes.

1.4 Layout of Standard

1.4.1 Parts

Each part deals with a different aspect of premises hygiene or sanitation. In this standard, the requirements for sanitation relate to the provision and maintenance of a sanitary

environment. The requirements for hygiene relate to the provision and maintenance of a state of cleanliness that is suitable for the processing of unprotected food and, where appropriate, byproducts.

1.4.2 Scope

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

1.4.3 Outcome

The outcome is the principal requirement. It is a statement of what is intended to be achieved and is a fundamental component of the New Zealand system for ensuring safety of food derived from animals, minimising hazards associated with byproducts and compliance with importing country requirements. It provides a basis for determining equivalence of alternative general or specific principles with the New Zealand standard.

1.4.4 General principles

The general principles described in the standard are based on good manufacturing practice. Application of the general principles should deliver the outcome. Alternative systems, customised where applicable or validated within the context of HACCP, are permitted.

1.4.5 Specific principles

1.4.5.1 The specific principles are recognised as methods of delivering the required outcome. The principles described in the standard are based on either validated data or good manufacturing practice. Alternative methods, validated within the context of IS8/IAS8, are permitted.

1.4.5.2 International recognition of any method may differ from country to country and specific importing country requirements should be consulted.

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

1.4.6 Explanatory notes

Any description in this standard which is enclosed in a box does not form a part of the requirement. It is an explanatory note which is intended to expand the general intent of the particular requirement and may serve to clarify compliance with the requirement in some instances.

1.4.7 Director-General

Where-ever it is a requirement in this standard to report to, or seek the approval of, the Director-General then the requirement shall be addressed to the Director Animal Products.

2 The Surveillance Programme

Amendment 3

May 2004

Scope

This section outlines the requirements for a programme for regular surveillance of the condition of the premises. It relates to the maintenance of the premises and hygienic environment. It applies to all categories of premises licensed under the Meat Act 1981 or approved by NZFSA.

2.1 Outcome

The premises, its facilities and equipment shall be maintained in a sanitary condition consistent with its particular use and equivalent to the standard required for licensing, or approval by NZFSA, see also IS2/IAS2.

2.2 General Principles

2.2.1 Documentation

2.2.1.1 The Licensee shall develop, document and implement a programme for regular surveillance of the processing environment, the facilities and equipment of the premises and the external environment in order to maintain a satisfactory sanitary state.

2.2.1.2 Documented surveillance programmes are to include, but are not restricted to:

- amenities;
- cold stores and freezers;
- the external environment, disused areas and areas under construction;
- food areas;
- food support areas;
- non-food areas;

- plant maintenance;
- potable water;
- vermin control.

2.2.2 Defects and defective conditions

2.2.2.1 Except where otherwise stated in the specific surveillance programme, the programme shall quantify and rank defects or defective conditions of the environment, its facilities or equipment according to their potential for causing a food hazard or a deterioration of product or byproduct.

2.2.2.2 The design of any premises surveillance programme should be based on the principles of HACCP, in which case the defect criteria, and their ranking, shall be quantified according to their relative hazard status.

Where the defect criteria, and subsequent rankings, have been determined from subjective assessments, then for export premises the expectations of reviewers and inspectors of importing countries might be taken into account, unless these views are the subject of a national issue with the country concerned.

2.2.2.3 Defect criteria

Defect criteria in relation to the maintenance of a sanitary environment of a premises are defined as follows:

A critical defect is:

a. One that would have a direct effect on food, such as damage to or severe deterioration of a direct food contact surface, processing equipment failure, failure of the sterilising systems used for operational hygiene, direct contamination from overhead, severe breach of the hygienic envelope, etc.; or

b. An accumulation of major defects that, collectively, indicate a critical default in attending to the maintenance of a sanitary environment.

A major defect is:

a. one that may result in a direct effect on food safety by:

- introducing a conflicting hygiene status, e.g. changes to process flows or rates of production, refer also to IS3/IAS3: Section 3;

- or contaminating food through the actions of people or proximity of equipment, product or byproduct;

b. an accumulation of minor defects that individually are not expected to have any direct effect on food but collectively can affect the overall processing environment, the personnel, protective clothing, ancillary equipment or packaging systems, and lead to secondary contamination of food.

A minor defect is:

One which is not expected to have any direct effect on food safety or increase the potential for an adverse food safety outcome.

2.2.3 Corrective actions in premises sanitation surveillance programmes

2.2.3.1 The Licensee shall take corrective actions if the processing environment, the facilities and equipment or external environment do not conform to the standards which are set out in IS2/IAS2.

2.2.3.2 Corrective actions shall be prioritised according to the following criteria:

a. A critical defect shall be corrected immediately. Processing shall cease if taking the corrective action will have a direct effect on food safety. Refer also to IS3/IAS3: Section 5.2.2.

b. A major defect shall be corrected at the first available opportunity during the day in which the defect occurred, and before processing starts the next day unless it can be shown that a further delay will not have an effect on food safety.

c. Minor defects shall be corrected as the opportunity arises. All minor defects shall be corrected within 6 months unless the premises operate on a seasonal basis, in which case they shall be corrected before the start of the next processing season.

2.2.4 Auditing by the Technical Supervisor

2.2.4.1 The Technical Supervisor shall develop, implement and document a systematic audit of the company programme for surveillance of the condition of the processing environment, the facilities, equipment and external environment of the premises according to the requirements of IS8/IAS8.

2.2.4.2 When, during systematic audit activities a critical defect is identified which is not already being appropriately addressed by the company, in a department, an area, a piece of equipment, an implement or thing, then it shall be identified using a yellow coloured AgM79 reject tag.

a. The AgM79 tag shall carry a description of what has been rejected.

b. The AgM79 tag shall be applied and removed only by a person directly responsible to the Technical Supervisor.

c. The tagged object shall not be used until the defect or defective condition has been corrected to the satisfaction of the Technical Supervisor, and the tag removed.

2.3 Food Support Facilities

2.3.1 Preventing contamination of food

Food support facilities shall be clean and tidy. The potential for indirect contamination of food shall be minimised as a consequence of:

2.3.1.1 the movement of people, equipment or food from food support areas to food areas.

2.3.1.2 air-borne contamination or as a conduit for air-borne contamination from the external environment.

2.3.2 Equipment

Materials and equipment that are stored or held in food support areas shall be placed in such a manner that regular cleaning of the area can occur.

2.4 Cold Stores and Freezers

2.4.1 Ice and snow

Cold stores and freezers shall be kept clean with minimal accumulated ice and snow.

The accumulation of snow and ice may be an indication that moisture is entering the room. The overall integrity of the room, the condition of the doors and door seals and the control over ingress of air during loading and unloading activities should be investigated and addressed.

2.4.1.1 Any damage to the door, the door seals or the overall integrity of the room, other than minor wear and tear, shall be considered a defect.

2.4.1.2 Accumulated snow and ice shall be removed on a regular basis.

2.4.2 Air-borne contaminants

Air-borne contamination shall be dealt with according to the requirements of Section 15.

Food stored in cold stores and freezers is occasionally affected by air-borne contamination, see also Section 15. Routine checking and maintenance of refrigeration facilities should be carried out, as well as checking of electrical fixtures and fittings so that potential sources of smoke, fumes and refrigerant gas contamination may be minimised. Note: fork lifts with internal combustion engines and welding fumes are common sources of air-borne contaminants.

2.5 Inedible Areas

2.5.1 General requirements

Inedible areas, and equipment used with inedible materials, shall be maintained in a clean and tidy condition so that activities in inedible areas do not present a hazard to food in food processing areas, or do not have an adverse affect on any byproduct produced in the area.

2.5.2 Air flows

The air pressure in inedible areas shall be controlled so that back flow of air, moisture, fumes or odours to food processing areas via chutes, door ways or other conduits is minimised.

2.5.3 Containers used in food areas

Inedible containers used in food areas shall be cleaned and sanitised if contaminated to the extent that a hazard may arise and otherwise cleaned and sanitised at least once every 24 hours.

2.6 External Environment

The external environment, including disused parts of premises, shall be maintained so that it does not become a source of contamination, air-borne contamination or vermin to the extent that the hygiene of any food area or food support area is adversely affected.

2.6.1 Equipment

The requirements outlined in IS3/IAS3: Section 5 shall apply in respect of equipment returning to a food area.

2.6.2 Vermin

The requirements outlined in IS3/IAS3: Section 6 shall apply in respect of vermin control.

2.6.3 Air-borne contaminants

The requirements outlined in IS3/IAS3: Section 15 shall apply in respect of air-borne contaminants.

2.6.4 Personnel

The requirements outlined in IS3/IAS3: Section 17 shall apply in respect of hygienic practices of personnel.

2.7 Amenities

2.7.1 General requirements

Amenities, including personal lockers, shall be maintained in such a manner that clothing and personnel equipment used during processing do not become contaminated. Refer also to IS3/IAS3: Section 17.5.3.

2.7.2 Chemical odours

Odours and perfumes from detergents, disinfectant and deodorisers must not invade the air space of any food area.

3 Changes to Process Layout

Amendment 3

May 2004

Scope

This section applies to any part of the premises where maintenance or alterations have taken place.

3.1 Outcome

Altering or maintaining premises shall be planned and carried out so that any effect on the hygienic performance of operations is minimal.

3.2 General Principles

3.2.1 Impact of change

3.2.1.1 The impact on the hygiene of production shall be evaluated in accordance with the principles of sanitary design when changes occur to the premises that have any effect on the:

- location of equipment,
- packaging handling systems,
- personnel flow,
- product flow,
- waste and byproduct flow paths,

Refer also to IS2/IAS2.

3.2.2 Defect criteria

Any maintenance activity or alteration that results in a significantly increased potential for contamination of food (by other food, process scraps or food with dissimilar status, or through personnel activities), or the deterioration of byproduct, shall be considered a potential major defect. In such cases, the change is to be evaluated by the Technical Supervisor prior to implementation in accordance with the procedures in IS8/IAS8.

Note: the impact of change resulting from alterations should have been addressed during planning of the alteration, refer also to IS2/IAS2.

4 Potable Water

Amendment 3

May 2004

Scope

The standards required in this surveillance programme for potable water will also apply in all instances where water sources are evaluated for the purposes of licensing or new sources of water are introduced to a licensed premises.

These requirements are not applicable, at this time, to premises listed as eligible to export to the European Community. The provisions of Meat Circular 86/3/2 form an integral part of the current veterinary agreement negotiated with the EC. This will be retained as the operative standard in all EC-approved premises until this item in the veterinary agreement can be re-negotiated by NZFSA.

4.1 Outcome

The provision and maintenance of a supply of potable water shall conform to the *Drinking Water Standards for New Zealand 1995.*

4.2 General Principles

The requirements of this section should be read in conjunction with the *Drinking Water Standards for New Zealand 1995*.

4.2.1 Provision and maintenance of supply

The Licensee shall provide and maintain a supply of potable water to the premises that conforms to the quantitative standards for drinking water defined in the *Drinking Water Standards for New Zealand 1995* (NZDWS95), National Drinking-Water Standards Review Expert Working Group, Ministry of Health.

4.2.2 Pre-licensing conditions

The proprietor of any premises, intended to become licensed, shall demonstrate compliance with the quantitative standards for drinking water, NZDWS95, as a pre-condition to the issue of a licence. Refer also to IS2/IAS2.

4.2.3 Demonstration of compliance

Except where otherwise required in this section, the Licensee shall demonstrate compliance with the quantitative standards according to the procedures that are laid down in NZDWS95.

4.2.4 Management plan

The Licensee shall design and document a programme for the management of potable water which includes:

4.2.4.1 the specific requirements appropriate to the premises that are necessary to provide and maintain a supply of potable water to the premises;

4.2.4.2 the procedures, appropriate to the premises, that will be implemented to demonstrate compliance with NZDWS95;

4.2.4.3 the surveillance and maintenance of the reticulation system to verify that it does not result in microbiological contamination before the point of use;

4.2.4.4 the corrective actions to be taken if the water fails to comply with the quantitative standards laid down in NZDWS95;

4.2.4.5 the corrective actions to be taken if microbiological contamination occurs from within the reticulation system;

4.2.4.6 the actions to be taken, including the disposition of food produced, if water becomes contaminated with determinands of health significance;

4.2.4.7 verification by a competent person that the management plan conforms to the requirements of NZDWS95 and that all described procedures are capable of maintaining a potable water supply.

4.2.5 Quantitative analysis

All microbiological and chemical analyses shall be performed in a laboratory that is approved by the Director-General of Agriculture and Forestry (see Technical Directive 01/186 ‘Laboratory Approval re Potable Water Testing at Domestic Premises and Cancellation of Circular 91/MP/25, 91/8/1’ relating to MILAB Approvals Ltd).

4.2.5.1 Samples shall be collected, handled and transported in such a manner that there is no significant change in the quantitative value of the determinands.

4.2.5.2 Samples for microbiological analysis should be analysed promptly. If they cannot be analysed by the laboratory within 1 hour of collection then:

a. they shall be immediately chilled to below 10°C and delivered to the laboratory within 6 hours of collection, or

b. they shall be immediately chilled to 2 - 5°C and delivered to the laboratory within 24 hours of collection.

4.3 Compliance

In demonstrating compliance with the quantitative standards for microbiological and chemical determinands, it should be noted that the methods available for the enumeration of *Giardia* and *Cryptosporidium* are expensive, time-consuming and inconclusive. Surveillance for these organisms is not recommended unless there is a demonstrable risk of public health significance. Compliance is based on the probability that the treatment process will have inactivated or removed any protozoa present. Refer also to NZDWS95, pg. 14.

4.3.1 Certified supply

4.3.1.1 Where a supplier can provide documentary evidence that the water supplied to a premises complies with the standards in NZDWS95, the Licensee is not required to duplicate any tests performed by the supplier. The Licensee shall still verify point-of-use quality as outlined in Section 4.5.

4.3.1.2 The evidence of compliance shall be provided by the supplier on an on-going and timely basis.

4.3.1.3 The frequency of testing shall comply with the testing requirements as stated in NZDWS95 and the tests shall be performed in an approved laboratory.

4.3.2 Independent supply

The Licensee shall test all sources of water if a supplier is unable to provide evidence of compliance with the NZDWS95 standard or where the Licensee has an independent water supply. The tests shall be performed on all sources of water.

4.4 Reticulation

4.4.1 Management of reticulation

The programme for the surveillance and maintenance of the reticulation system shall include:

4.4.1.1 an up-to-date plan of the reticulation system;

4.4.1.2 routine monitoring of water at the point of use according to the requirements of Section 4.5;

4.4.1.3 the systematic review of all water treatment and storage facilities;

4.4.1.4 the identification of all pipelines in accordance with IS2/IAS2;

4.4.1.5 the removal or complete isolation of all redundant pipe work that may cause contamination of the water supply;

4.4.1.6 the systematic checking of the integrity of all back flow prevention devices and valves connecting potable and non-potable water reticulations.

Refer also to IS2/IAS2 for the requirements for a potable water reticulation system.

4.5 Point-of-Use Compliance

The purpose of this section is to ensure the integrity of the reticulation system as it applies to water supplies on all premises.

4.5.1 Sampling points

There shall be a number of sampling points so that representative sampling of the reticulation system can occur.

4.5.2 Routine monitoring

When compliance with the quantitative standards in NZDWS95 has occurred at the point of entry to the premises, as in the case of water provided by a supplier (Section 4.3.1), the water shall also be routinely monitored at the point of use. In these cases, the characteristics listed in Table 1 shall be routinely monitored at the point of usage according to the frequencies listed in Table 2.

Table 1

Characteristic	**Maximum acceptable value**
Faecal coliform	Must not be detectable in 100 ml of sample*
Total coliforms	Must not be detectable in 100 ml of sample*

* <1.1 MPN/100ml

Table 2

Average daily use (m^3 per day)	**Minimum sampling frequency**
Stores*	1 per 6 months
< 2000	1 test per month
2001 - 10 000	1 test every 2 weeks
> 10 000	1 test per week

* except premises described in Section 4.7.

4.5.3 Point of use criteria

When premises chlorinate their own water systems, the following point of use criteria shall apply:

4.5.3.1 a minimum of 0.2 mg/l (ppm) of free available chlorine (FAC) shall be maintained in the water reticulation at all times during processing;

4.5.3.2 provided the water pH is in the range 6.5 - 8, the chlorine shall have a minimum contact time of 20 minutes;

4.5.3.3 the turbidity shall not exceed 5 NTU but should not routinely exceed 1 NTU except as allowed in NZDWS95.

4.5.4 Suspended operations

The surveillance of potable water should be maintained at all times. If processing is suspended then the reticulation should be flushed, i.e. taps should be opened at points of use to allow a significant flow of water to occur, on a regular basis and routine monitoring should be carried out according to the requirements of Section 4.5.3. If this is not carried out then the reticulation shall be completely flushed, i.e. taps shall be opened at all points of use until the flow of water has significantly drained the reticulation system, and compliance with the criteria in Table 1 shall be demonstrated before production starts.

4.6 Corrective Actions

4.6.1 General requirements

All corrective actions shall be taken according to the requirements of NZDWS95.

4.6.2 Faecal coliforms

4.6.2.1 Whenever faecal coliforms are identified in a certified supply, the supplier shall notify the Licensee, and the Licensee shall implement daily point-of-use sampling according to the requirements of NZDWS95. No further actions are necessary unless faecal coliforms are identified at the point of use.

The obligation of suppliers to notify Licensees could be addressed through contractual arrangements between companies and suppliers.

4.6.2.2 Where faecal coliforms are identified at the point of use, the corrective action flow path outlined in NZDWS95 for responses to contamination of a drinking-water supply distribution zone shall be followed.

4.6.2.3 The Technical Supervisor shall be familiar with the corrective action flow path outlined in NZDWS95 and shall monitor compliance with the requirements.

4.6.3 Retaining product

Product shall be retained on the premises if requested by the Medical Officer of Health.

4.6.4 Ceasing operations

If the Licensee is unable to comply with a "Boil Water" response for all potable water, whenever the Medical Officer of Health requires this action to be taken, the premises shall cease all operations.

A "Boil Water" notice is issued after successive corrective actions, including disinfection, have been carried out and faecal coliforms are still present in the water. Refer to NZDWS95. This action is taken when other forms of disinfection have not been effective. It may not be practical for premises to boil all water and therefore ceasing operations may be the only available action.

4.7 Small Premises

4.7.1 Application

4.7.1.1 The requirements of this section may be followed by Stores with independent supplies of water, i.e. own well or facility to gather surface waters, provided that:

- the premises is an export store and does not handle any unprotected product; or
- the premises does not process any ready-to-eat products, and
- water is not incorporated as an ingredient in any product, and
- the premises is not an export premises for which compliance with any other standard is required.

4.7.1.2 The procedures described in this section may not satisfy the requirements of some importing countries for potable water. To maintain export eligibility to those countries, Licensees will need to demonstrate full compliance with the specific requirements of the importing country for the surveillance of potable water. Refer also to IS3/IAS3: Section 4, Scope.

4.7.2 Initial evaluation

The source of water shall be acceptable to the Medical Officer of Health. Faecal coliform testing of the supply shall be performed for 5 consecutive days. The water shall contain no faecal coliforms/100 ml (<1.1 MPN/100ml).

4.7.3 Surveillance

4.7.3.1 Microbiological monitoring at the point of use shall be performed not less frequently than once per 3 months. There shall be no faecal coliforms/100 ml (<1.1 MPN/100ml).

4.7.3.2 Where the water is chlorinated, free available chlorine (FAC) shall be monitored daily.

4.7.3.3 Where the water is not chlorinated, the turbidity shall be monitored daily.

4.7.4 Corrective actions

4.7.4.1 Where faecal coliforms are identified in any sample, the corrective action flow path outlined in NZDWS95 for responses to contamination of a drinking-water supply distribution zone shall be followed.

4.7.4.2 If the FAC concentration is less than 0.1 mg/l (ppm), or if the turbidity exceeds 1 NTU, all processing or handling of unprotected food shall cease. The reticulation system shall be flushed and a faecal coliform test shall be performed before processing and/or handling of unprotected food restarts.

4.8 Potable Water for Cervine Co-products

4.8.1 Criteria

Water complying with one of the criteria specified in 4.8.1.1, 4.8.1.2 or 4.8.1.3, may be considered to meet the requirements for potable water. For the avoidance of doubt, water complying with the standard provided in 4.8.1 may only be used in premises where production is limited to those products receiving certification on the AgM107 or equivalent.

4.8.1.1 A water supply graded by the Ministry of Health as A1 – B, a-b; or

Information on grading of water supplies may be obtained from the Ministry of Health website: http://www.moh.govt.nz/moh.nsf/49ba80c00757b8804c256673001d47d0/d38685624f71f629cc256d6600097e44?OpenDocument

Note: The requirements in Section 4.8.2 also apply.

4.8.1.2 Water which meets the requirements of the current “Meat Division Circular 86/3/2 Surveillance of Potable Water in Meat and Game Export Premises” and “86/3/5 Amendment to MDC 86/3/2/, 86/14/5 on Surveillance of Potable Water in Meat and Game Export Premises” or

4.8.1.3 Water which meets the requirements of IS3/IAS3/IAS 3 Hygiene and Sanitation Section 4, Potable Water.

4.8.2 Reticulation management plan

4.8.2.1 The Licensee shall develop and document a reticulation management plan that;

i. includes the provision of any additional treatments where required;

ii. includes systems to ensure that the water is maintained at a standard consistent with that supplied ie: that the premises reticulation does not contaminate the water;

Consideration should be given to backflow prevention, surveillance and maintenance of pipework, sanitation and protection of any on site storage facilities. It is recommended that the Licensee seek the services of a person competent in the management of water to facilitate the design of an appropriate reticulation management plan

iii. describes a testing regime in accordance with the requirements specified in Table 3;

iv. includes an action plan in the event of non compliance with the criteria in Table 3, including appropriate sanitation procedures.

Table 3

Type of operation	Frequency of microbiological testing	Criteria for microbiological testing
Processor using <2000m^3/day	1 test per month	E coli or faecal coliforms must not be detectable in 100 ml of sample Total coliforms must not be detectable in 100ml of sample
Processor using 2000 – 10 000m3/day	1 test every 2 weeks	E coli or faecal coliforms must not be detectable in 100ml of sample Total coliforms must not be detectable in 100ml of sample

4.8.3 Documentation

4.8.3.1 Licensees shall document their premises specific procedures in accordance with the criteria above.

4.8.3.2 Programmes designed and documented to comply with 4.8.1.3 shall be approved by MAF VA Technical Specialists.

4.8.3.3 Programmes designed and documented to comply with 4.8.1.1 and 4.8.1.2 shall provide for the generation of sufficient records to enable verification that they are operating in accordance with this standard. The scope of verification is to include an assessment of conformance with this standard.

4.9 Technical Supervision

The Technical Supervisor shall design and implement a programme of auditing the surveillance of potable water in accordance with the principles outlined in IS8/IAS8. For the purposes of evaluating compliance, the following shall be considered defects:

4.9.1 Critical defects

Critical defects shall include, but are not restricted to, failure to respond to the presence of any faecal coliform or to comply with the corrective action flow path outlined in NZDWS95, or in the case of small premises, failure to comply with the requirements of IS3/IAS3: Section 4.7.3.

4.9.2 Major defects

Major defects shall include, but are not restricted to, failure to sample and analyse the water according to the frequencies and procedures required by this surveillance programme.

4.9.3 Corrective action by the Technical Supervisor

The Technical Supervisor shall retain products and cease operations in the event that critical defects are not corrected immediately. The disposition of retained product shall be determined in conjunction with the Medical Officer of Health, after evaluating the potential hazard associated with the non-compliance.

5 Plant Maintenance

Amendment 3

May 2004

Scope

This section applies to any corrective actions or maintenance activities undertaken on the premises.

5.1 Outcome

Maintenance activities and actions taken to correct sanitary defects shall be carried out so that contamination, including air-borne contamination, of food or packaging or processing equipment is minimal.

5.2 General Principles

5.2.1 Protection of food, packaging and equipment

Corrective plant maintenance that is necessary during processing shall not take place in the immediate vicinity of any food or packaging or processing equipment.

Normal in-process adjustments to machinery or equipment, including changing light bulbs or replacing bandsaw blades etc, are not considered to be corrective actions or maintenance activities.

5.2.2 Breakdowns

When equipment breakdown occurs during processing, and corrective action cannot be carried out in a sanitary manner, then:

- food and packaging shall be removed from the room and the equipment repaired; or
- processing shall cease in the affected area, and food and packaging shall be protected from contamination during repair of the equipment; or
- the defective equipment shall be removed from the processing environment to be repaired whilst production continues.

5.2.3 Programmed maintenance

Routine or programmed maintenance to the equipment or the construction of the food area, or byproduct facility, shall not occur during processing.

5.2.4 Maintenance chemicals

5.2.4.1 Any authorised chemical or production aid required during any corrective action or maintenance activity shall be used according to the conditions of its approval.

5.2.4.2 The restriction of any chemical or production aid to non-food areas does not apply when processing in a food area has ceased for routine or programmed maintenance. Afterwards, the affected parts of the room and affected equipment shall be subjected to wet cleaning to remove chemical residues followed by a pre-operation hygiene check before processing re-commences.

5.3 Maintenance Personnel

5.3.1 Personal hygiene

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

This includes the wearing of protective clothing maintained in a hygienic condition and the application of appropriate hygiene routines when moving between departments of a dissimilar hygienic status. Refer also to IS3/IAS3: Section 17.5.

5.3.2 Equipment

No tools and equipment used during corrective actions and plant maintenance shall come in contact with food or compromise the hygienic status of any food or packaging material.

5.4 Hygiene Assurance

After corrective actions or maintenance have finished and before processing commences, all affected equipment and areas of the plant shall be appropriately cleaned and sanitised, and subjected to a quality check that is consistent with the requirements for pre-operational hygiene assurance. Refer also to IS3/IAS3: Section 7.

6 Vermin Control

Amendment 3

May 2004

Scope

This section lays down the requirements for vermin control in all premises.

6.1 Outcome

There shall be no direct or indirect contamination of food, byproduct, food contact materials/items, equipment or packaging resulting from the presence of vermin in premises.

6.2 General Principles

The Licensee shall design, document and implement a programme for the control of vermin appropriate to the premises. The programme shall include, but is not restricted to:

6.2.1 how buildings are to be vermin proofed, (e.g. self closing doors, fly screens, drain traps);

6.2.2 how vermin are to be killed, discouraged and prevented from breeding;

6.2.3 how pesticides and vermin traps are to be employed in the control of vermin;

6.2.4 the methods used to monitor the presence of vermin and the effectiveness of vermin control;

6.2.5 what actions are to be taken when vermin are detected.

6.3 Pesticides

6.3.1 Conditions of use

Pesticides (rodenticides and insecticides) shall be used by trained personnel in accordance with the conditions of use documented in Manual 15: Approved Chemicals.

6.3.2 Rodenticides

Rodenticides shall be used only in enclosed, uniquely identified bait boxes.

6.3.3 Insecticides with residual activity

Type B insecticides, i.e. those that have any residual activity or are dispensed as continuous aerosols or contain perfumes, shall not be used in any food area or food support area or used in any area in a manner that would permit the insecticide to invade the food areas.

6.4 Vermin Traps

6.4.1 Location of traps

The location of vermin traps (including marked rodent boxes and electric insect traps) shall be identified on a site and building plan.

6.4.2 Monitoring of traps

The monitoring frequency of traps shall be determined relative to the type of trap and the degree of vermin activity noted. Appropriate corrective actions shall be implemented where increased activity is noted.

6.4.3 Insect traps

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

6.4.3.1 be constructed so they catch and secure insects in a suitable drawer, tray or adhesive mat which facilitates the capture and removal of insects;

6.4.3.2 not cause any air-borne contamination;

6.4.3.3 be sited so there is no contamination by insects falling on to food, packaging, food contact surfaces or, where appropriate, byproduct.

6.5 Contamination

6.5.1 Where there is evidence of contamination by vermin or any vermin activity in food, packaging or byproducts, the following actions shall be carried out:

6.5.1.1 the affected food shall be declared unfit for human consumption and affected food contact surfaces shall be cleaned and sanitised or sterilised prior to reuse;

6.5.1.2 the affected wrapping and packaging materials shall not be used for packing of food;

6.5.1.3 the affected unpackaged heat processed byproducts shall be reprocessed.

7 Pre-Operational Hygiene Assurance

Amendment 3

May 2004

Scope

This section applies to the checks that must be carried out in all food areas, and includes food support facilities and non-food areas where the condition of the facility may contribute to a food hazard, before processing takes place.

7.1 Outcome

Checks shall ensure the sanitation programme has been effective and an adequate state of hygiene exists in all food areas and food support facilities prior to the start of processing.

7.2 General Principles

7.2.1 Pre-operational check

Processing shall not commence until a pre-operational check has been carried out in the relevant food area and associated food support facilities and corrective actions have been taken to rectify sanitary defects present.

7.2.2 Documentation

The Licensee shall document the requirements for a pre-operational hygiene assurance programme that is appropriate to the activities of the premises. The programme shall provide for routine checks to be carried out by trained personnel using appropriate criteria and with the authority to carry out corrective actions and to control processing.

7.2.3 Trained personnel

All checks shall be carried out by trained personnel competent in the detection of sanitary defects.

7.2.4 Frequency of checks

Checks shall be performed on a daily basis in every room or area that is required to be cleaned not less than once every 24 hours on working days. Checks shall be carried out in all other areas after any routine cleaning has occurred and before processing or handling re-commences.

Dormant areas of the premises, i.e. not used for any function including egress, do not require pre-operational checks. See IS3/IAS3: Section 2.6.

7.2.5 Checksheets

All areas to which the requirements for pre-operational hygiene apply shall have a checksheet developed which records the nature of the defect, where it occurred and the corrective action that was taken. Checksheets shall be signed and dated by the person who performed the checks and should be counter-signed by the person responsible for checking that the corrective action has been effective.

7.2.6 Defects

7.2.6.1 Defects found after cleaning shall be assessed, categorised and ranked according to their potential for causing a food hazard. Refer also to IS3/IAS3: Section 2.

7.2.6.2 The potential for causing a food hazard shall be determined by considering the nature of the defect and the proximity of the defect to food during processing.

7.2.6.3 A maximum allowable level of defects shall be determined and included in the programme as the tolerance.

7.2.7 Corrective actions

7.2.7.1 An effective corrective action procedure shall be implemented for rectifying defects noted during the pre-operational check.

7.2.7.2 The Licensee shall investigate and correct the causes of repetitive failures of the sanitation programme to achieve the agreed allowable level of defects.

7.2.8 Records

The records of all pre-operational hygiene checks shall be maintained so that the overall performance of the programme is able to be readily monitored.

Graphing of each department's performance is recommended.

7.2.9 Audit

7.2.9.1 The Technical Supervisor shall design and implement an audit programme to verify the effectiveness of the company's sanitation and pre-operational hygiene inspection programme according to the requirements of IS8/IAS8.

7.2.9.2 When validating a pre-operational hygiene assurance programme, the Technical Supervisor shall take into account the categorising, ranking and the tolerance established for allowable defects in relation to their potential for causing a food hazard.

7.3 Inedible Areas

The general principles for pre-operational hygiene assurance shall apply to inedible areas where byproducts, pet food and biological byproducts are produced in order that the premises is maintained in a clean state and fit for the purpose. The categorising and ranking of defects shall be appropriate to the nature of the byproduct and the fitness for purpose.

8 Process Room Atmosphere

Amendment 4

April 2006

Scope

This section applies to all food areas and food support areas while processing is taking place.

8.1 Outcome

The exposure of food to the environmental atmosphere during production shall result in minimal microbial contamination.

8.2 General Principles

Any room where food is processed shall be maintained at a temperature and/or humidity that is appropriate to the nature of the food, the type of processing and the intended state of preservation.

8.3 Wet Processing Rooms

8.3.1 Room temperature

8.3.1.1 The temperature of any wet processing room, processing raw un-preserved products, shall be maintained at 12°C, or less, during processing except in the case of slaughter facilities, offal rooms, casings rooms, some aging rooms, and velvet processing rooms; refer also to IS6/IAS6, and some thermal processing rooms; refer also to IS3/IAS3: Section 8.3.2.

8.3.1.2 In the event of non-compliance, corrective action shall be implemented immediately. If corrective action is not effective, processing shall cease and the room cleared.

8.3.2 Thermal processing

8.3.2.1 Rooms that are dedicated to the thermal processing of food shall be maintained at temperatures that will not result in microbial proliferation in or on the food.

8.3.2.2 Rooms where unwrapped cooked products are further processed shall be temperature controlled according to the requirements in Section 8.3.1 unless the product is temporarily held hot for specific processing requirements.

8.4 Dry Processing Areas and Support Facilities

Rooms that are dedicated to the processing of dry food shall be maintained at temperatures and humidities that will not result in microbial contamination or deterioration of the food.

Microbial studies should be carried out to determine an appropriate temperature/humidity range for the type of products.

9 Processing Hygiene

Amendment 3

May 2004

Scope

This section applies to all food areas and relevant food support facilities.

9.1 Outcome

In all food areas, food contact surfaces shall be maintained in a hygienic condition throughout production.

9.2 General Principles

The plant and equipment shall be cleaned and, where appropriate, sterilised according to the requirements of any production criteria.

9.3 Sterilising

9.3.1 General requirement

9.3.1.1 Facilities and equipment shall be sterilised whenever sterilisation is required by a standard. Refer also to IS2/IAS2 and IS5/IAS5.

9.3.1.2 Facilities and equipment shall be exposed to sterilising water for a sufficient time to cause a reduction in microbial contamination.

In the case of combined hand wash/steriliser units, this has been shown to take at least 1.5 seconds.

9.3.2 Water temperature

Water use for sterilising shall be maintained at the sterilising temperature, at the point of use.

9.3.2.1 Immediate corrective action shall be implemented if the water temperature is cooler than sterilising temperature.

9.3.2.2 Production shall cease if the corrective action is impossible or unsuccessful.

9.3.2.3 Not withstanding Section 9.3.2.2, processing may continue, provided:

a. the discrepancy is small and continued processing is unlikely to result in an adverse food safety outcome, e.g. the type of processing does not require the use of water at the sterilising temperature, and

b. resolution can be achieved within 30 minutes, and

c. the discrepancy at the point of use is not repetitive, and

d. the premises does not have a history of non-compliance for sterilising water temperature control.

9.3.3 Preventing contamination of sterilising water

9.3.3.1 Contamination of sterilising water with waste water shall be prevented. Contamination by other contaminants shall be minimised.

Other contaminants may be, for example, the presence of wool in dunk sterilisers or wool and other wastes in combined hand wash-steriliser units.

9.3.3.2 Sterilisers shall be emptied and cleaned daily. They shall not be used for any purpose other than the sterilisation of equipment used during processing. They shall be kept in such a condition that sterilisation is effective.

9.4 Sanitisers

9.4.1 Use of chemical sanitisers

Approved sanitisers shall be used according to the manufacturers' instructions.

9.4.1.1 They shall only be used on hard surfaces that have been previously cleaned unless the effectiveness of the sanitiser, or cleaner-sanitiser, and their manner of intended use has been microbiologically validated.

9.4.1.2 Sanitisers shall be handled according to the requirements for chemical management outlined in Section 14.

10 Conveying Product and Byproduct

Amendment 3

May 2004

Scope

This section applies to the conveying of food both within the premises and between premises, and the handling of inedible material where there is a potential to affect food.

10.1 Outcome

Food shall not become contaminated when it is conveyed within a room, or between rooms, or between licensed premises, or as a result of the conveying or handling of byproduct.

10.2 General Principles

Any food that is conveyed outside a food area shall be protected from contamination or deterioration. The protection shall include physical barriers and the provision of temperature controls as specified by any production standard for the type of food, or process, unless the food is fully preserved by other means.

10.3 Equipment

10.3.1 Reusable containers

10.3.1.1 Reusable containers used for conveying or storing food shall be subject to a cleaning and sanitation programme. The programme shall be based on the principles of cleaning, refer to IS3/IAS3: Section 13, and should take into account the manner and areas in which these are used.

10.3.1.2 All equipment (including stillages or reusable containers) shall be checked according to the requirements for pre-operational hygiene assurance prior to entry into a food area processing, handling or storing unpackaged product.

10.3.2 Conveyors

10.3.2.1 Conveyor belts transferring unwrapped product shall be cleaned at the same frequency as food contact surfaces in any food area.

10.3.2.2 Conveyors other than continuous flat belts, e.g. hinged rigid plastic systems, transferring unwrapped product shall be cleaned at a frequency that has been determined using microbiological validation. Refer to IS8/IAS8.

10.3.2.3 The microbiological criteria, after cleaning, for conveyors used to transfer unwrapped product shall be:

a. Aerobic plate counts incubated at 30°C (APC_{30}), n=5, c=1, m=5 x 10^3, M= the mean value of the premises Microbiological Database for the product being conveyed.

n = number of samples, c = the number of samples that may exceed the value of m, M = the maximum acceptable value.

Note: in this standard M may equal or even be less than m, in which case m will become the maximum acceptable value.

b. Conveyor belts that do not meet this standard shall be properly evaluated. Where the problem is persistent and is associated with the condition of the belt, then the belt shall be replaced.

10.4 Byproducts and Inedible Containers

10.4.1 Byproducts and inedible materials that are conveyed through any food area shall be contained and covered and at all times.

10.4.2 Containers and facilities used to convey byproducts shall be cleaned and sanitised on a daily basis. Those containers and facilities used to convey byproducts from food areas shall be clean before re-entering a food area.

10.4.3 Chutes leading from food areas shall have been cleaned and sanitised before the start of operations in any food area.

11 Food Which Comes in Contact With Non-Food Contact Surfaces

Amendment 3

May 2004

Scope

This section relates to any food which comes in contact with non-food contact surfaces.

11.1 Outcome

Food which comes in contact with non-food contact surfaces shall either have the contaminated site removed or shall be disposed of as unfit for human consumption. Any design fault or operational error precipitating the problem shall be rectified.

11.2 General Principles

11.2.1 Disposition of food

Food which comes in contact with non-food contact surfaces (including unhygienic food contact surfaces) shall be dealt with in a manner which is appropriate to the type of contaminant (biological, chemical or physical).

11.2.2 Corrective actions

Corrective actions shall be taken to address the cause of all repetitive faults.

11.3 Documentation

The Licensee shall document the requirements for the processing and reworking of any food which comes in contact with non-food contact surfaces.

11.3.1 Application

The documented requirements shall be appropriate to the activities of the premises.

11.3.2 Prevention

The requirements shall describe procedures implemented to avoid or prevent any food coming into contact with non-food surfaces.

11.3.3 Separation

Foods that have become contaminated shall be kept separate from one another and from uncontaminated food.

11.3.4 Removing contamination

11.3.4.1 Contamination shall be removed by trimming. Trimming shall be carried out in areas that are specifically set aside, and identified, for the purpose.

11.3.4.2 Where trimming is not practical, the food shall be deemed unfit for human consumption.

11.3.5 Repetitive faults

Repetitive faults caused by equipment design or operational errors shall be investigated and corrective action taken to minimise re-occurrence.

The application of sanitary design principles and/or good operational control should avoid the potential for food hazards associated with food coming in contact with non-food contact surfaces. Refer also to IS2/IAS2 and IS3/IAS3: Section 3.

11.4 Carcasses

Refer also to IS5/IAS5 for slaughter floor operations.

11.4.1 Hide-on carcasses

Where carcasses have come in contact with a non-food contact surface, including the floor:

11.4.1.1 *Hides not intended for human consumption*

If the hides are not intended for human consumption, the carcasses may be replaced on to the chain and/or further dressed under supervision to ensure that direct contamination of exposed surfaces and/or indirect contamination from excessively soiled hides is dealt with according to the principles for hygienic dressing (see IS5/IAS5).

11.4.1.2 *Hides intended for human consumption*

a. Where the carcasses have come in contact with a non-food contact surface prior to the fibres being removed and the skin cleaned, the carcasses may be washed and replaced on the chain and/or further dressed without restriction, provided that overall hygiene is not compromised.

b. Where the carcasses have come in contact with a non-food surface after the fibres have been removed and the skin cleaned, but prior to evisceration, the carcasses shall be washed and decontaminated by thorough flaming or by the use of low pressure water at temperatures no cooler than 70°C for at least 10 seconds.

c. If the skin has been contaminated by chemical compounds that are not approved for incidental food contact or if the skin is grossly stained, the affected skin surface shall be trimmed.

11.4.2 Hide-off carcasses

Carcasses, sides or quarters which have come into contact with a non-food contact surface may be replaced on the chain if they are clearly identified, transported and handled in a manner which does not spread contaminants.

11.4.2.1 These products shall be dealt with according to the principles for hygienic dressing (see IS5/IAS5);

11.4.2.2 They may be trimmed according to the requirements outlined in Section 11.5.

11.4.2.3 If they cannot be adequately and hygienically trimmed they shall not be used for human consumption.

11.5 Offals and Cuts

11.5.1 Products not eligible for salvage

Certain combinations of product and contaminants may not be able to be salvaged for human consumption, e.g. small individual offals or cuts such as beef rib fingers or ovine kidneys, or product which has had contact with deleterious substances.

11.5.2 Trimming and reworking

A facility shall be provided which is reserved for the purpose of trimming and reworking affected product:

11.5.2.1 Offals and cuts shall be trimmed on a cleaned food contact surface. Hanging products on a cleaned and sterilised hook is acceptable. The hook shall be only be used once and where the carriage of surface contaminants into the product is unavoidable, the area punctured by the hook shall be hygienically removed and condemned.

11.5.2.2 Contamination shall be removed by trimming. The entire potential contact surface shall be removed, preferably as a single flay, to avoid recontamination.

11.5.2.3 Contaminated bone surfaces shall be trimmed. Product with contaminated bone surfaces may be held refrigerated and boned/cut under supervision at the end of a run or day.

11.5.2.4 Separation of contaminated product from other product and fixtures shall be maintained. Knives/saws shall not penetrate the contaminated surfaces (e.g. bovine rib meat cannot be removed hygienically when one side of the rib cage has been contaminated).

11.5.3 Wrapped products

Contaminated wraps of wrapped product shall be hygienically removed and replaced. Alternatively, product which is packaged in completely sealed and impervious wraps shall be cleaned with water at a pasteurising temperature (>70°C) or chemically sanitised and thoroughly rinsed. Unused contaminated wraps shall be discarded.

12 Waste Management

Amendment 3

May 2004

Scope

This section applies to the handling of process scraps and wastes, and waste packaging materials, in food areas.

12.1 Outcome

Process scraps and wastes, and waste packaging material, shall not contaminate product, the food area, equipment or personnel.

12.2 General Principles

Process scraps shall be handled in such manner that the hygiene of food, the food area, equipment or personnel is not adversely affected. Inedible containers that are, by necessity, required to be present in food areas during processing shall be handled and maintained in a condition which does not adversely affect the hygiene of food or the food area, equipment or personnel.

12.3 Process Scraps and Wastes

Process scraps and wastes which are not suitable for salvage as food shall not accumulate in a food area. They may be accumulated in suitably identified inedible containers, or placed into chutes, and conveyed to an inedible handling facility. Refer also to IS3/IAS3: Section 10 in relation to the use of inedible bins and containers.

12.4 Waste Packaging Material

12.4.1 General requirements

12.4.1.1 Discarded packaging material shall not accumulate in a food area. Packaging material that has been removed from food intended for further processing or reworking shall be placed in suitably identified inedible containers and expeditiously removed from the food areas.

12.4.1.2 The removing of packaging shall occur in an area set aside for this purpose. The requirements outlined in IS3/IAS3: Section 3 shall apply in respect of hazards associated with removing packaging in food areas. See also IS2/IAS2.

12.4.2 Inspection legend material

Any waste packaging material bearing an inspection legend shall be defaced, if it has not already become damaged during unwrapping, so as to preclude its reuse.

12.4.3 Food contact material

Food contact wrapping material shall be discarded if the food contact surface of the material has become contaminated in any way. Refer also to IS6/IAS6.

12.4.4 Market access

Specific market requirements shall be met when handling discarded packaging, e.g. EC carton/meat handler requirements. Refer also to Overseas Market Access Requirements.

13 Cleaning Programmes

Amendment 3

May 2004

Scope

This section applies to the cleaning programmes used in all food areas and food support facilities, non-food areas and byproduct premises where the condition of the facility may contribute to a food hazard or the contamination of a byproduct.

13.1 Outcome

The premises and equipment shall be cleaned and sanitised at a frequency which maintains their hygienic status.

13.2 General Principles

All parts of every production area shall be cleaned on a regular or planned basis.

The frequency of cleaning shall be appropriate to the nature of the process and be commensurate with the hygienic status of the food or byproducts. Periodic cleaning and sanitising of plant and equipment may occur between shifts and between runs, depending on the requirements of the food, byproduct process or production criteria.

13.3 Cleaning Programmes

The Licensee shall develop and document a programme for routinely cleaning the premises.

13.3.1 Documentation

The documented programme shall include, but is not restricted to:

13.3.1.1 the areas, structures and equipment that are to be routinely cleaned;

13.3.1.2 the frequency of cleaning, including periodic clean-ups, between shift clean-ups, mid-shift clean-ups and end of day cleaning;

13.3.1.3 the cleaning and sanitising procedures detailing, where necessary, the special requirements of any particular area, structure or piece of equipment;

13.3.1.4 the list of authorised chemical detergents, sanitisers and other production aids that are used;

13.3.1.5 records of routine cleaning of areas, structures or equipment that are cleaned at a frequency which is less than once per day.

13.3.2 Appropriate cleaning programmes

The cleaning programme shall be appropriate to the nature of the type of food and the process.

13.3.2.1 For foods of high water activity (moist foods), the programme shall include an appropriate wet cleaning routine based on the principles outlined in Section 13.5.

13.3.2.2 For dry food and packaged foods, the programme shall include an appropriate dry cleaning routine based on the principles outlined in Section 13.6.

13.3.2.3 In some circumstances where the food type may contain moisture (e.g. pastry, pasta and semi-moist products) the cleaning routines may include both wet and dry cleaning procedures due to the nature of the equipment and the facilities. In these instances a programme shall include the principles for both dry and wet cleaning outlined in Sections 13.5 and 13.6.

13.4 Microbiological Monitoring

13.4.1 General requirements

Microbiological monitoring of the processing environment and food contact surfaces of plant and equipment shall be carried out to verify the effectiveness of the cleaning programme.

13.4.1.1 *Indicator organisms*

a. The programme shall include the surveillance of aerobic plate counts using methods generally recommended for microbiological surveillance of the environment.

A reference database, compiled using the principles of microbiological monitoring outlined in IS8/IAS8: Appendix A, should be maintained from the quantitative data.

b. Rapid tests for hygiene evaluation, e.g. bioluminescence, may be routinely used provided the methods are adequately calibrated against quantitative aerobic plate count data.

13.4.1.2 *Pathogens*

The programme shall establish a specific pathogen profile where there is a likelihood for a particular environmental pathogen to create an adverse food safety outcome in a specific product, e.g. *Listeria monocytogenes* in cooked ready to eat foods.

13.4.2 Performance standards

The microbiological condition of any food contact surface during operations, as measured by the mean log10 count of the indicator organism(s), should not exceed the expected mean log10 count of similar indicator organism(s) on product.

The numbers of micro-organisms on food surfaces throughout a processing day will be influenced by cleaning programmes, incoming microbial loads on the food and the opportunities for growth during production. The objective of this standard is to minimise contamination of foods through redistribution of micro-organisms from food surfaces.

13.5 Wet Processing Areas

13.5.1 Application

All food areas and food support areas shall be wet cleaned except where dry cleaning is otherwise permitted.

13.5.2 Frequency of cleaning

Wet cleaning and sanitising shall be carried out at the frequency specified by the particular standard in force. Where no frequency has been specified, all wet food areas shall be cleaned and sanitised, all food support areas shall be cleaned and where appropriate sanitised, at least once per 24 hour period.

13.5.3 Wet cleaning procedures

Wet cleaning operations shall include procedures for:

13.5.3.1 removal of loose scraps and surface soil;

13.5.3.2 the use of chemicals and cleaning equipment, including any special requirements for the use of chemical compounds that may be used where direct food contact can occur;

13.5.3.3 cleaning areas, structures or equipment that may require special attention, such as food contact points, chutes, viscera trays, overheads and clean-in-place (CIP) systems.

13.5.4 Prevention from contamination

Cleaning operations shall be carried out in a manner that will prevent the contamination of food, food contact material (e.g. wrappings, etc.) or previously cleaned areas, structures or equipment with waste water from wash down procedures.

13.5.5 Equipment

Wet cleaning equipment (e.g. mops, scrubbers, hoses, and buckets) shall be stored and maintained in such a manner that they do not provide a source of direct or indirect contamination to food. Refer also to IS2/IAS2.

13.5.5.1 Wet cleaning equipment shall be stored in an hygienic manner away from the main food areas.

13.5.5.2 Single use wet cleaning equipment is recommended. Where multiple use equipment is used, e.g. mops, scrubbers and buckets, they shall be sanitised and/or sterilised prior to reuse and maintained in a good state of repair.

13.5.5.3 The use of steel wool should be avoided. If used, the affected area shall be thoroughly washed and checked for contamination by metal fibres.

13.5.6 Chemicals

The use of chemical compounds shall conform with the principles outlined in IS3/IAS3: Section 14.

13.6 Dry Cleaning

13.6.1 Application

Premises, and facilities in premises, that are dedicated to processing, handling and storing dry foods may be dry cleaned. Wet cleaning is not considered necessary for microbiological control in these instances provided the equipment and environment remains dry. This section also applies to rooms holding or storing packaged product and packaging material.

13.6.2 Food residues and dust

13.6.2.1 Dry food residues and dust shall not accumulate excessively on equipment or in the environment where it may serve as a breeding site for vermin, particularly insects.

13.6.2.2 The moisture levels in any airborne food dust which may rest on ledges, external equipment surfaces, etc., shall be below levels sufficient to support microbial growth.

13.6.2.3 Process scraps shall be removed from dry processing areas at least daily. The containers shall be clean and dry before being returned to the processing area.

13.6.3 Cleaning methods

Methods of dry cleaning include brushing, scraping, vacuuming and, in some circumstances, pressurised air. Refer also to IS2/IAS2 for dry cleaning equipment.

13.6.3.1 Cleaning methods shall minimise the creation of dust and air-borne contamination.

13.6.3.2 A regular cleaning programme shall be in place for the filters and air handling system where dust extraction systems are installed.

13.6.3.3 Where vacuum cleaning systems are employed, a sufficient number of vacuum cleaners shall be provided to ensure frequent cleaning.

a. Filters shall be changed regularly.

b. The removal of dust bags shall be carried out regularly and away from the food areas.

c. Portable vacuum systems shall be protected from moisture during transportation and storage.

d. Portable vacuum cleaners shall not be dismantled for cleaning in a food area. The principles of dry cleaning processing equipment shall apply to the cleaning of vacuum cleaners.

13.6.3.4 Where pressurised air is used, the air shall be contained within the internal equipment surfaces (e.g. cleaning of chutes).

13.6.3.5 Compressed air coming in direct contact with food contact surfaces shall be filtered if it is not otherwise treated to remove contaminants. Refer also to IS2/IAS2.

13.6.3.6 Brushing and scraping procedures may use an edible oil or food grade solvent (e.g. 70% ethanol) to facilitate the removal of fatty food residues from equipment surfaces.

13.6.4 Cleaning frequency

13.6.4.1 The frequency of cleaning shall be determined from a microbiological evaluation of the types of raw materials used, the characteristics of the process and the nature of the food soils and the environmental residues.

13.6.4.2 Microbiological monitoring shall be carried out according to the principles set out in Section 13.4.1.

13.6.4.3 The numbers of micro-organisms on food contact surfaces should not exceed in-house base levels that have been established for the indicator organisms, see also Section 13.4.2.

13.6.5 Dry cleaning equipment

13.6.5.1 Cleaning equipment (brushes and scrapers, etc.) shall be cleaned and sanitised regularly in a manner appropriate to the type of equipment.

13.6.5.2 Equipment used to clean food contact surfaces shall not be used for other purposes.

13.6.5.3 Equipment removed from a dry processing area for purposes of wet cleaning shall be dry prior to its return and reassembly.

13.6.6 Wet cleaning in dry food areas

13.6.6.1 If wet cleaning is necessary (e.g. of fixed processing equipment) the amount of water used shall be kept to a minimum. All water, and steam, shall be contained within the immediate area that is being wet cleaned.

13.6.6.2 If the entire dry food area requires wet cleaning (i.e. walls, ceiling, equipment, etc.), adequate amounts of water shall be used to ensure all residues are removed.

13.6.6.3 All equipment and food surfaces that are wet cleaned shall be free from food residues and moisture before the processing of dry food products restarts.

13.6.6.4 Sanitisers shall be used during wet cleaning to minimise the risk of bacteriological growth during drying. Forced ventilation with hot air should be used where practical to shorten the drying time as much as possible.

In addition, a 70% aqueous solution of ethanol or isopropanol may be used on equipment after wet cleaning. A solution such as this is bactericidal, and the water vaporises quickly, with the alcohol leaving the treated surface dry.

13.7 Plant and Equipment

13.7.1 Application

13.7.1.1 Equipment, including personal equipment, utensils and containers shall be cleaned according to the specific requirements relating to slaughter and dressing, (see IS5/IAS5) or after the completion of each shift and shall be:

a. sanitised or sterilised at least once per 24 hours on each day that production occurs;

b. sanitised or sterilised after coming in contact with contaminated material;

c. sterilised after coming in contact with diseased material.

13.7.2 Food contact surfaces

13.7.2.1 Food contact surfaces of equipment used for processing raw food shall be cleaned at:

a. the start of each new process operation (unless they have already been cleaned and sanitised, see also IS3/IAS3: Section 13.9), or

b. at a frequency that has been determined and validated according to IS3/IAS3: Section 13.4.2 in respect of wet cleaning, or Section 13.6.4 in respect of dry cleaning.

13.7.2.2 Process scraps shall be removed from food contact surfaces at breaks or once every 2.5 hours which ever is soonest.

13.7.3 Equipment used for ready-to-eat products

All equipment used for the processing of unpackaged, ready-to-eat products shall be cleaned and sanitised after not more than 5 hours processing.

13.7.4 Temporarily idle equipment

All equipment or machinery which has been used but is temporarily idle shall be cleaned prior to reuse if the delay is in excess of 4 hours. In the case of equipment used for processing ready to eat products, the equipment shall be cleaned and sanitised.

13.7.5 Clean-in-place systems

The requirements of Section 13.7 relating to the frequency of cleaning and sterilising, or sanitising, shall apply to equipment where clean-in-place (CIP) systems are used. Refer also to IS2/IAS2.

13.8 Chutes, Overheads, Skids and Gambrels

13.8.1 Chutes

13.8.1.1 Any product or byproduct chute, which leads from any food area, shall be cleaned at least once every 24 hours during production. Product chutes shall be cleaned and sterilised if they become contaminated.

13.8.1.2 The cleaning of product chutes shall not result in contamination of food or packaging materials.

Cleaning programmes are to ensure that chutes do not provide a conduit for the contamination of food due to aerosols, splash or waste water.

13.8.2 Overhead structures

13.8.2.1 Overhead structures in food areas shall be inspected regularly and cleaned as appropriate.

13.8.2.2 Daily procedures shall include the removal of obvious contaminants.

13.8.2.3 Where any overhead structure is a constant source of contamination, it shall be regarded as a food contact surface and cleaned according to the requirements of those surfaces.

13.8.2.4 Condensation on overhead structures directly above food shall be regarded as a critical defect.

13.8.3 Hooks, gambrels and skids

13.8.3.1 Hooks, gambrels and skids shall be cleaned and sterilised/sanitised at the following frequencies:

a. after each use, when they are used on uninspected carcasses or contaminated material;

b. daily, when used on carcasses or product which has passed inspection;

c. or at any time they become contaminated.

13.8.3.2 Chemical baths used in the cleaning programme shall be drained and cleaned when contaminated. Any accumulated fat waste shall be removed on a daily basis. The chemical bath system shall include the use of an effective sanitiser or steriliser.

13.8.3.3 After cleaning and sanitising or sterilisation, hooks, gambrels and skids shall be stored in a manner which minimises re-contamination prior to use. The rooms used to clean and store hooks, gambrels and skids shall be kept in a clean condition.

13.9 Between Species Cleaning

All equipment and food contact surfaces should be cleaned between processing different species.

Cleaning is intended to remove all traces of protein that could contaminate a species verification test and/or reduce microbial loads if the preceding species is more heavily contaminated than the following one.

13.10 Carcass Chillers and Cooling Floors

13.10.1 General requirements

Except where the cleaning requirements for continuous operations are in force, carcass chillers and cooling floors shall be cleaned whenever the room is emptied and before reuse. Cleaning procedures shall take into account condensation, rail dust and rail oil drip.

13.10.2 Fans and evaporators

Fans and evaporators shall be cleaned and sanitised periodically. The procedures may include, or necessitate, fumigation with sanitisers.

The frequency of cleaning fans, evaporators and/or fumigating the room should be determined according to the nature of the food and microbiological results from monitoring of the air. In the absence of microbiological monitoring, the fans and evaporators shall be cleaned at least once each season and whenever any substantial maintenance work is carried out in the chiller or to its refrigeration equipment.

13.10.3 Continuous operations of carcass chillers and cooling floors

13.10.3.1 All walls shall be visually clean before operations commence each day.

13.10.3.2 Floors shall be progressively cleaned each day in a manner which does not contaminate carcasses.

Mechanical scrubbers and low pressure hosing are not to be used closer than 1 metre from carcasses if the area where the carcasses are suspended is not completely shrouded from the cleaning system. Wrapped carcasses are not considered to be protected in this regard.

13.10.3.3 A complete sanitation of the room shall be performed at least weekly unless a customised sanitation programme is developed and implemented, see Section 13.11.

13.11 Customised Sanitation Programmes

13.11.1 General requirement

Licensees may develop and implement customised sanitation programmes based on validated systems for microbiological monitoring and sanitary control.

13.11.2 Documentation

The programme shall be fully documented and include the following elements.

13.11.2.1 *Objectives*

A description of the programme's objectives and scope, i.e. the plant facilities and/or equipment that will be covered by the programme.

13.11.2.2 *Authorities and responsibilities*

A list of the authorities and responsibilities of personnel involved in the cleaning programme.

13.11.2.3 *Procedures*

The procedures for cleaning and sanitising/sterilising that are to be performed.

13.11.2.4 Cleaning frequency

The frequency at which cleaning and sanitising/sterilising will occur.

13.11.2.5 *Standards*

The objective hygiene standards that are to be achieved by the cleaning procedures.

13.11.2.6 *Measurements*

The measurements, and frequency of measurements, that will be made to verify the effectiveness of the cleaning programme.

13.11.2.7 *Records*

The records that will be kept.

13.12 Byproduct Areas

The principles for cleaning programmes shall apply to non-food areas where byproducts, pet food and biological byproducts are produced in order that the premises is maintained in a clean state and fit for the purpose.

14 Chemicals

Amendment 3

May 2004

Scope

This section applies to all chemicals and compounds outlined in Manual 15 and used in the premises. It does not include laboratory chemicals where their use is confined to the laboratory.

14.1 Outcome

The use of chemicals in the premises shall not jeopardise the hygienic status of food or byproducts.

14.2 General Principles

Chemical compounds, production aids and packaging material shall be handled in such a manner that the hygienic status of food, the processing environment, equipment or personnel is not adversely affected. All chemical agents shall be authorised and used in accordance with the manufacturer's instructions. Refer also to Manual 15.

14.3 Documentation

The Licensee shall document the procedures for the handling of chemicals that are appropriate to the particular premises. The programme shall provide for a person who is trained in the use of chemicals, an inventory of compounds and the management of chemicals so that food and the food environment, or byproducts, do not become contaminated.

14.4 Authorised Chemicals

All chemical compounds on a premises shall be clearly labelled and listed in an inventory. The name of any chemical compound present on the premises shall correspond to a name that appears in the lists in Manual 15 or in a current letter of authorisation.

14.5 Trained Personnel

The access, handling and use of chemical compounds shall be under the supervision of trained personnel.

14.6 Storage of Chemicals

14.6.1 General requirement

Chemicals shall be kept in closed containers in secure facilities. Refer also to IS2/IAS2.

14.6.2 Labelling

All containers of chemicals shall be labelled. If bulk chemical supplies are transferred to smaller containers for immediate use, the name of the chemical as listed in Manual 15 or in a current letter of authorisation shall appear on the container.

14.6.3 Stores

Chemical stores shall be kept dry and shall be maintained in a clean condition. Access to the store by people shall be under supervision of trained personnel.

14.6.4 Chemicals in use

14.6.4.1 Chemical compounds may be held in food support facilities in quantities necessary for immediate use. Refer also to IS2/IAS2.

14.6.4.2 Containers of chemicals shall be closed immediately after use.

14.7 Use of Chemicals

14.7.1 Conditions of use

Chemical compounds shall only be used according to the directions of the manufacturer and subject to the conditions of the authorisation.

14.7.2 Directions for use

The directions for use shall be available at the point where the compound is used. If the directions do not appear on the label, the product information data sheets shall be available to the person who is using the chemical.

14.7.3 Incidental food contact

Chemicals that are permitted in situations where there is a potential for incidental food contact shall be used according to the conditions of the approval and:

14.7.3.1 *Sanitisers*

In the case of sanitisers, they shall be applied to cleaned hard surfaces and shall be completely drained from food surfaces before production starts.

14.7.3.2 *Hand sanitisers*

In the case of hand sanitisers, hands must be washed before applying the sanitiser. The hands need not be rinsed after use but the sanitiser shall have evaporated and the hands shall be dry before the operator returns to the processing line.

14.7.3.3 *Lubricants*

In the case of lubricants, the relevant parts of equipment shall be thoroughly cleaned according to requirements for food contact surfaces. Where necessary, the relevant parts of the equipment shall be dismantled to visualise cleaning. After cleaning, fresh lubricant shall be applied according to the instructions for use.

14.7.3.4 *Surface treatment compounds*

In the case of surface treatment compounds, the surface shall be cleaned by washing to ensure no free substance remains that could be transferred to food being processed. Baths used in the anti-rust treatment of skids and gambrels shall be kept clean.

Accumulations of fat and/or moisture in anti-rust treatment baths can reduce the effectiveness of the treatment.

15 Dust, Odours, Fumes and Gases

Amendment 3

May 2004

Scope

This section applies to all food areas and food support areas, and inedible areas where the condition of the facility may contribute to a food hazard.

15.1 Outcome

Contamination of food and the hygiene of any food area, or food support area, by air-borne contaminants shall be minimised.

15.2 General Principles

15.2.1 Preventing air-borne contaminants

Sources of air-borne contaminants shall be identified and where these may affect food to the extent that the contamination is of public health concern or that the usual characteristics of the product may be significantly altered, the source should be eliminated or the effect minimised.

15.2.2 Suspending production

Production shall be suspended if air-borne contamination cannot be effectively minimised.

15.2.3 Defect criteria

Sources of air-borne contaminants originating within the premises, including the premises' environs, shall be regarded as critical defects and dealt with according to the principles of hygiene assurance. Refer also to IS3/IAS3: Section 7.2.

15.3 Contaminated Food

Air-borne contaminants can have a significant effect on the normal characteristics of food. The effects may present as changes in colour or taste or have the effect of shortening the shelf life of food.

15.3.1 Process failure report

Air-borne contamination of food shall be dealt with in the same manner as a process failure (see IS8/IAS8). The identity of the food, the nature of the wrappings, the identity of the contaminant and the degree of exposure shall be determined.

15.3.2 Combustion byproducts

Where air-borne contaminants are associated with the burning of materials composed of organic compounds (such as lubricants, plastics, electrical cables, switch boards, etc.), the nature of the materials and the intensity of the combustion shall be determined as far as possible.

Combustion byproducts of many organic compounds are toxic and/or carcinogenic. The nature of the material is important to enable a determination to be made of the food hazard associated with combustion byproducts.

The degree to which the production of combustion byproducts of public health concern takes place may depend on the combustion temperatures during burning, e.g. the burning of chlorinated hydrocarbons such as PVC electrical coatings at high temperatures can result in the production of dioxins.

15.3.3 Evaluation

Food that has become affected by air-borne contamination shall be evaluated by a competent person as outlined in IS8/IAS8.

16 Health of Personnel

Amendment 3

May 2004

Scope

The requirements outlined in this part shall apply to all personnel engaged in or being employed in the slaughter and dressing of animals or the processing, packaging or handling of food or handling of any material or article used in the packaging of food.

16.1 Outcome

Personnel entering food areas shall be apparently healthy so that hazards associated with the transmission of diseases of public health concern are minimised.

16.2 General Principles

Personnel suffering from, or who are carriers of, communicable diseases that can be transmitted as a consequence of handling food, as may be defined in Schedules 1 and 2 of the Health Act 1956, or who are suffering from any discharge of infective material from the head, neck, hands or arms, as set out in the Meat Regulations 1969, regulation 72(1), shall not work in food areas or handle packaging material except as permitted under 16.3 and 16.4 below.

16.3 Prohibiting Work in Food Areas

16.3.1 Licensee to prohibit work

The Licensee shall prohibit any person from working in a food area or in the handling of packaging material if he/she suspects the person is suffering from any condition referred to in this section.

16.3.2 Medical Officer of Health to prohibit work

The Medical Officer of Health (MOH) may prohibit a person from working in a food area or in the handling of packaging material, if that person is suffering from, or has been in recent contact with a person suffering from, any condition referred to in this section. The MOH will serve a notice in writing to such persons.

16.4 Medical Certificates

16.4.1 Application

Any person who has been prohibited from working in a food area shall provide evidence, as follows, that the prohibition no longer applies:

16.4.1.1 in respect of a case:

a. by a certificate from a medical practitioner stating the person is no longer likely to spread infection associated with:

- the illness, or
- from any condition of the head, neck, hands or arms, as the case may be, or

b. in the case of illness under the Health Act, with approval of the MOH.

16.4.1.2 in respect of a contact, by a notice from the Medical Officer of Health revoking the notice issued in respect of an in-contact person.

16.4.2 Importing country requirements

Importing countries may have requirements for medical certificates which differ from these requirements, see also Overseas Market Access Requirements.

16.4.3 Records

Records of sighting medical certificates shall be maintained by the Licensee and shall be available to the Technical Supervisor or the MOH or his/her representative.

16.5 Injuries

16.5.1 Minimising contamination

The risk of contamination of food and byproduct through blood and other fluid discharges associated with injury, including the presence of wart or wart-like lesions, shall be minimised.

16.5.2 Wound dressings

16.5.2.1 Dressings applied to an injury or any other skin lesion shall be waterproof, maintained in a sanitary condition and adequately secured to avoid dislodgement.

16.5.2.2 Impervious gloves used to cover dressings shall comply with Section 17.4.5.

Brightly coloured or metallized wound dressing are more likely to be detected in products if they become dislodged.

16.6 Health Monitoring

The Licensee shall maintain all records relating to disease problems of any employee.

17 Hygienic Practices

Amendment 3

May 2004

Scope

This section applies to all personnel involved in the processing, packing or handling of food and byproducts. People who may not be directly involved in the processing, packing or handling of food or byproducts but where their actions could adversely affect food or byproducts or the certification of a byproduct as meeting particular importing country requirements, shall comply with all relevant requirements for personnel hygiene.

17.1 Outcome

The direct and indirect activities of personnel shall minimise the potential for microbial, physical or chemical contamination of food or byproducts.

17.2 General Principles

17.2.1 The Licensee

The Licensee shall:

17.2.1.1 document the particular requirements for personnel hygiene that are appropriate to the activities of the premises;

17.2.1.2 advise all employees and other workers of the documented requirements relating to the hygiene of personnel; and

17.2.1.3 ensure that no person works or enters any food processing area of the premises unless they comply with the documented requirements relating to the hygiene of personnel.

17.2.2 Personnel

Personnel shall:

17.2.2.1 comply with the requirements for the hygiene of personnel documented by the Licensee;

17.2.2.2 notify the Licensee of any medical condition which may pose a risk of communicating food-borne disease (refer to Section 16).

17.3 Behaviour of Personnel

17.3.1 Preventing contamination from the head and face

The head and face of personnel provide sources of contamination which may be transferred to food.

17.3.1.1 Body hair that is not covered by protective clothing shall be included in routine washing as required by Section 17.3.3 or otherwise managed to minimise contamination of products. Hairnets and, beardnets shall be worn to contain hair on the head and face.

17.3.1.2 No person shall eat, smoke, spit or drink in any food area or food support area.

Drinking from drinking fountains is permitted.

17.3.1.3 Sneezing, coughing or touching the face, mouth or nose shall be avoided. If unavoidable, hands or gloved hands (as appropriate) shall be cleaned after each episode.

Personnel affected with persistent sneezing or coughing should seek medical attention.

17.3.2 Jewellery

Personnel processing, packing or handling unprotected food shall not wear jewellery in any situation where direct or indirect contact with food could occur, including jewellery associated with exposed body piercing. Jewellery includes earrings, rings, bangles, bracelets, brooches, necklaces, studs and wristwatches.

17.3.2.1 Plain wedding rings may be worn as long as they will not dislodge into food and are effectively cleaned in the same manner as hands.

17.3.2.2 Any other jewellery shall be fully contained within protective coverings (e.g. wristwatches covered by sleeve protectors, earrings covered by hairnets, body jewellery covered by plasters etc.) or taken off. Jewellery may be worn on gloved hands only when the jewellery will not damage the gloves, or the jewellery does not impede proper use of the gloves.

17.3.3 Hands and arms

Hands, protective clothing and personal equipment shall be washed or cleaned regularly and whenever they become contaminated.

17.3.3.1 Hands and any part of the exposed arm shall be cleaned:

a. whenever personnel enter a food area; or

b. when contaminated; or

c. after any toilet activity, including contact with the face, mouth or nose.

17.3.3.2 Personnel processing, packing or handling unprotected food shall use approved hand cleaners which include chemical sanitisers.

17.3.3.3 *Cosmetics*

Personnel processing, packing or handling unprotected food shall not wear fingernail polish. In addition, fingernails shall be kept clean and should not be excessively long.

17.4 Protective Clothing

17.4.1 Requirements

Any person entering a food area shall wear protective clothing covering at least the head, shoes and any street clothing within the potential food contact zone, to prevent the transfer of contaminants to food, equipment and the processing environment.

Covering of the potential food contact zone will, in the majority of cases, only involve a coat that may leave street clothes exposed below the knee.

17.4.2 Colour of protective clothing

Protective clothing may be of any colour, provided the presence of any soil, relative to the type of work, is clearly distinguishable. Personnel engaged in activities of a similar hygienic status should wear protective clothing of the same colour.

It may be preferable for personnel having different responsibilities in a common area to be distinguishable by wearing protective clothing of different colours.

17.4.3 Waterproof coverings

All personnel engaged in wet processing areas who are required to handle unprotected food shall wear a clean waterproof covering that covers at least the worker's body to the full extent of the potential food contact zone, e.g. from the shoulder line to below the table level in the case of personnel who work at tables, or to below the lowest point on the carcass in the case of personnel who work with suspended carcasses; and shall include any personnel equipment worn by the worker, e.g. the tip of the steel.

17.4.4 Footwear

All personnel who are required to handle unprotected food shall wear footwear that can be effectively cleaned before entering any food area. The specific requirements for cattle eviscerators are outlined in IS5/IAS5 and are applicable to all dressing systems where personnel stand directly on a food contact surface, e.g. beef viscera tables.

17.4.5 Gloves

17.4.5.1 *Definitions*

Impervious gloves: Includes solid or coated-woven reusable gloves and examination/surgical-type disposable gloves that meet the composition and conditions of use requirements for indirect food additives (polymers) specified in the current US Code of Federal Regulations, Title 21, Part 177 (21 CFR 177).

http://www.access.gpo.gov/nara/cfr/waisidx_01/21cfr177_01.html

Protective cut-resistant gloves: Includes all chain-mesh gloves, and super-lightweight single yarn (average weight 27g) and lightweight double yarn (average weight 32g) kevlar or spectra/fibreglass fibre-cored seamless knitted gloves.

Alternative protective cut-resistant gloves may be used if associated cleaning and sanitation programmes meet the specified microbiological outcomes (refer 17.4.7). Validation studies shall be documented.

17.4.5.2 *Application*

a. Prior to final inspection:

Impervious gloves may be used

Protective cut-resistant gloves may be worn by personnel engaged in handling unprotected product, only:

i. At stations where ongoing OSH and/or ACC issues have been demonstrated, or, in the case of new procedures, where there is potential for injury; and

ii. Where procedures are in place to ensure that personnel handling the hide/pelt do not subsequently contact unprotected product with the protective gloves, unless

- Uncovered protective cut-resistant gloves are replaced between handling of the hide/pelt and contact with product, or
- Protective cut-resistant gloves are covered by impervious gloves that are washed between handling of the hide/pelt and contact with unprotected product.

b. Following final inspection:

Gloves (all types) may be worn by all personnel engaged in handling unprotected product.

17.4.5.3 *Only clean gloves to be worn*

Gloves shall be cleaned before use and whenever they become visibly contaminated (refer 1.2). Hands shall be cleaned before gloves are donned and after gloves are removed.

Impervious gloves

Prior to final inspection: Gloves must be removed and discarded (disposable gloves) or sterilised in 82°C potable water (reusable gloves) at breaks or every 2.5 hours, whichever is soonest.

Following final inspection: Gloves must be removed and discarded (disposable gloves) or sterilised or sanitised (reusable gloves) every 4 hours.

All impervious gloves shall be discarded whenever the impervious surface is punctured or becomes damaged such that adequate cleanliness cannot be maintained.

Protective cut-resistant gloves must be removed and sterilised in 82°C potable water at breaks or every 2.5 hours, whichever is soonest, and must be replaced with cleaned and

sterilised/sanitised (refer 17.4.7) gloves whenever they become visibly contaminated (refer 1.2). Contaminated gloves shall not be reused until they have been adequately cleaned and sterilised/sanitised. All protective cut-resistant gloves must be cleaned and sterilised/sanitised at the end of the day's operation or shift, whichever is soonest.

Alternative procedures for the wearing of gloves used prior to final inspection may be implemented if equivalent microbiological outcomes are met (refer 17.4.7). Validation studies shall be documented.

17.4.6 Protective sleeves

Any person engaged in handling unpackaged food shall wear waterproof sleeves over fabric sleeves. This does not apply where the fabric sleeves are rolled up to above the elbow.

17.4.7 Cleaning and sanitising

17.4.7.1 *General requirements*

Protective clothing shall be clean prior to any person entering a food area at the commencement of work.

Personnel who leave a food area, such as a slaughter facility, with minor blood splashes on protective clothing should be allowed to return to the food area subject to complying with the requirements of Sections 17.5.3.4 and 17.5.3.5.

17.4.7.2 *Reuse clothing*

Protective clothing that is capable of reuse shall be cleaned after use and be maintained in a clean environment before reuse.

17.4.7.3 *Only clean clothing to be worn*

Protective clothing shall be cleaned during the day if it becomes excessively contaminated. Where it cannot be adequately cleaned, it shall be changed.

17.4.7.4 *Sterilising/sanitising reusable clothing*

Reusable aprons, leggings shall be sanitised at least once every 24 hours.

Plastic sleeves shall be sanitised every 4 hours.

Protective gloves shall be cleaned and subjected to a full sanitation programme at least once every 24 hours. The full sanitation programme for protective cut-resistant gloves, including the web-strapping at the top of chain-mesh gloves, shall achieve a

microbiological outcome (APC30 and E. coli, rinse sample) at least equivalent to that of clean hands.

All reuseable clothing, including protective gloves, shall be cleaned and sterilised/sanitised, if contaminated.

The following sanitation programmes will achieve the outcome described above for gloves used prior to final inspection. This sanitation procedure will not require microbiological validation. Note that any other method of sanitation will need microbiological validation as stated in Section 17.4.5.1 and the final paragraph of this box.

1. All protective cut-resistant gloves: Soak in quaternary ammonium sanitiser overnight. Rinse with warm water prior to use; or

2. *Chain-mesh gloves:* Hose with high pressure 82°C water to remove visible soil, soak in alkaline cleaner (20 - 25%) for no less than 15 minutes, soak in 90°C water for no less than 15 minutes, rinse with high pressure hot water (82°C), and hang to dry in a glove cabinet; or

3. *Knitted gloves:* Hose with high pressure 82°C water to remove visible soil, soak in quaternary ammonium sanitizer (0.2%) for no less than 30 minutes, rinse with high pressure hot water (82°C), and hang to dry in a glove cabinet.

Alternative cleaning and sanitation programmes for gloves used prior to final inspection must achieve an equivalent microbiological outcome, and must be documented.

17.4.7.5 *Disposable clothing*

Disposable aprons, gloves and plastic sleeves shall be discarded after use, when torn or if they cannot be effectively cleaned during use.

17.5 Sanitary Management

17.5.1 Separation of personnel

When personnel have to undertake activities where the hygienic state of the different procedures is dissimilar, appropriate sanitary routines shall be implemented between procedures.

Personnel should be assigned to activities where the hygienic status of all procedures they are required to work at is similar (e.g. raw versus cooked, inedible versus edible).

17.5.2 Sanitary routine

Personnel shall carry out a sanitary routine before commencing any procedure on unprotected food where the hygiene of the food is of a higher status than that which the worker has just left. This principle shall apply equally to the processing of byproducts. The sanitary routine shall include, but is not necessarily restricted to:

17.5.2.1 a complete change of all protective clothing and cleaning of the hands and arms in the case of workers changing from:

a. raw to cooked food activities,

b. byproduct to food activities, and

c. unclean byproduct activities to clean, manufactured byproduct activities.

17.5.2.2 changing aprons, gloves and protective sleeves, and cleaning the hands and arms, in the case of workers changing from green offal to clean offal activities.

17.5.3 Prevention of contamination

17.5.3.1 Equipment that is provided to personnel for their regular use during the course of their daily activities shall be maintained in a hygienic condition.

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

17.5.3.3 Reusable protective clothing and personal equipment that comes in direct contact with unprotected food shall be stored in dedicated food support areas set aside for the purpose. Refer also to IS2/IAS2.

17.5.3.4 Reusable protective clothing and personal equipment that comes in direct contact with unprotected food shall not be taken into any toilet or inedible area.

17.5.3.5 Protective clothing and personal equipment shall not become contaminated as a consequence of the activities of personnel outside a food area. This includes:

a. when wearing protective clothing and personal equipment outside a food area as a requirement of normal premises operations, and

b. when storing protective clothing and/or personal equipment in lockers. Refer also to IS2/IAS2.

Protective clothing should not be worn outside of work areas and amenities.