

# **Industry Standard 9**

## **Storage and Transport**

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## Review of Industry Standard 9

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

The co-ordinator welcomes suggestions for alterations, deletions or additions to this standard, to improve it or make it more suited to Industry needs. Suggestions should be sent to the co-ordinator on the form on Page P.3, together with reasons for the change and any relevant data.

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## Amendment Record

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Amendments to this manual will be given a consecutive number and will be dated. Please ensure that all amendments are inserted, obsolete pages are removed, and the record below is completed.

Amendment No.	Date	Entered by	Amendment No.	Date	Entered by
1			26		
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# 1. Introduction

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## Scope

IS 9 describes the requirements for the storage and transport of products and byproducts. These requirements shall apply whenever products and/or byproducts are stored in licensed or MAF approved premises, transported between licensed or MAF approved stores, or transported to a port in preparation for export. For the purposes of this industry standard, product does not include seafood.

Seafood products are covered by the Fish Processing for Export Regulations 1995 and IAIS 003. Export stores are licensed to store product and do not differentiate between types of product, e.g. fish as distinct from meat. The principles of construction and operation set out in this standard are equivalent to those that apply to seafood. When an export store that predominantly handles fish also handles meat, game or game meat then the requirements of this Industry Standard will apply. Note also: there are specific temperature requirements for storage of seafood, these are given in the IAIS's.

Processors are responsible for preparing products and byproducts that are fit for intended purpose and are in a suitable condition to be transported or stored. This industry standard sets out the principles for providing an environment that will maintain the intended state of preservation and prevent contamination of products and byproducts so that at all times the products and byproducts remain fit for intended purpose.

In addition to maintaining the state of preservation, an essential regulatory outcome is maintaining and providing security for the identity of products in order to protect the integrity of export certification. Food and other materials that are also handled and stored in licensed premises, and transported in similar vehicles or modes of transport must not have any affect on the characteristics of products or byproducts or compromise the identity of the lot.

## 1.1 Outcome

The identity and state of preservation of products and byproducts shall be maintained, and protected, throughout their storage and transportation within New Zealand.

## 1.2 Definitions

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

**Conveyance** means any road vehicle excluding tractor units, railway wagon, aircraft or vessel used for the transport of animal products. Conveyances may include shipping containers.

**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.

**OMAR** means Overseas Market Access Requirement notified under Section 60 of the Animal Products Act 1999.

**Preservation temperature** shall mean -12°C in the case of products from frozen mammal, poultry, ostrich and emu, +7°C in the case of chilled products from mammals, poultry, ostrich and emu intended for immediate further processing or consumption, and the temperature which is specified by the processor in the case of chilled foods with extended shelf life or the temperature specified by the processor or an importing country in the case of byproducts.

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

**Processor** includes any person or business responsible for preparing products and byproducts that are fit for their intended purpose and in a suitable condition to be transported or stored.

**Shipper** means any person or business engaged in arranging for the movement of products or byproducts. Shipper includes exporters, brokers, processors and store operators.

**Shipping container** means a sealed protective box or unit in which food or other products are transported and or exported.

**Transporter** means any person or business that engages in the physical movement of products or byproducts between premises within New Zealand and, in the case of exports, includes the movement of products and byproducts to the conveyance at the point of departure. Transport and transportation have corresponding meanings.

**Technical Supervisor** means a person with the primary responsibility for verification at the premises level.

**Vehicle docking facility** means a structure and location approved by the Director (Animal Products) of the Ministry of Agriculture and Forestry and intended to allow, under controlled conditions, the direct transfer of product between vehicles.

## 1.3 General Principles

### 1.3.1 Cross references

- 1.3.1.1 The requirements for construction of licensed or approved premises shall be read in conjunction with IS 2, IAS2.
- 1.3.1.2 The requirements for the maintenance of hygiene and sanitation in licensed or approved premises shall be read in conjunction with IS 3, IAS3.
- 1.3.1.3 The requirements for storage and transportation of products defined within the scope of this standard should be applied in conjunction with the requirements for quality assurance described in IS 8, IAS8.
- 1.3.1.4 The specific requirements of importing countries shall be read in conjunction with Official Assurance Programme (OAP) and Overseas Market Access Requirements [Manual 12] (OMAR) and IAIS 002.4 in the case of seafood.
- 1.3.1.5 The requirements of OMAR 00/94 are substantially incorporated into this Industry Standard. OMAR 00/94 is issued under Section 60 of the Animal Products Act 1999 and compliance

with the OMAR is a condition of certification to EU. OMAR 00/94 will therefore remain in force.

### **1.3.2 Customised Processes, Experimentation, Hazard Analysis and Critical Point Systems (HACCP) and New Technology**

Where any outcome required by this industry standard (IS) 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 IS 8, and they comply with all relevant regulatory outcomes.

## **1.4 Layout of this Industry Standard**

### **1.4.1 Scope**

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

### **1.4.2 Outcome**

The outcome, as used throughout this standard, 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 to ensure that products and byproducts derived from animals are fit for their intended purpose. It provides a basis for determining equivalence of alternative general or specific principles with the New Zealand standard.

### **1.4.3 General principles**

The general principles described in the IS 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.

### **1.4.4 Specific principles**

1.4.4.1 The specific principles are recognised as methods of delivering the required outcome. The principles described in the IS are based on either validated data or good manufacturing practice. Alternative methods, validated within the context of IS 8, are permitted.

1.4.4.2 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.

### **1.4.5 Director-General**

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

#### 1.4.6 Explanatory notes

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

## 2 Regulated Products

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### Scope

This section relates to maintaining the identity of all products and byproducts throughout storage and transportation and clearly distinguishing these from all other goods that may be similarly stored or transported.

### 2.1 Outcome

Products and byproducts that are stored and transported are clearly identifiable at all times.

### 2.2 General Principles

#### 2.2.1 Integrity of regulated products

##### 2.2.1.1 Premises

- (i) Products derived from meat, game or game meat and intended for export shall only be stored or handled in premises or facilities that are licensed or approved for that purpose by MAF Food.
- (ii) Byproducts intended for export shall be stored in premises that are licensed or approved for that purpose by MAF Food if it is requirement of export certification. See OMAR.

##### 2.2.1.2 Conveyances

- (i) Products that are intended for export shall be transported between premises, including export facilities and vehicle docking facilities, in road or rail vehicles owned and operated by licensees or listed transport operators.
- (ii) Road or rail transport firms, other than licensees, who intend to transport export products derived from meat, game or game meat shall apply for annual listing using the form AP15 in the Appendices.
- (iii) Regulated products shall not be loaded or unloaded from vehicles except:
  - In licensed or approved premises
  - At the wharf for immediate loading into the vessel taking the product from New Zealand
  - Into airport security facilities
  - At approved vehicle docking facilities (VDF)
- (iv) To obtain approval as a vehicle docking facility submit an application using the Premises Licensing/Approval: Application Form (AgM851) in the Appendices.

#### 2.2.2 Products and byproducts to be labelled

Products and byproducts shall be labelled by processors according to any requirement for labelling outlined by the Director-General. Licensees of stores shall not accept or release products that do not bear the minimum labelling requirements.

Minimum labelling may include any requirement of an importing country, see OMAR.

### **2.2.3 Inventories**

Licensees of stores shall maintain an inventory of all stored products and byproducts, refer Section 5, Documentation.

### **2.2.4 Transportation**

2.2.4.1 Products and byproducts shall not be transported unless they are properly identified and appropriate validated security arrangements are in place to verify the identity of the product.

2.2.4.2 Security arrangements shall, at a minimum, include all regulatory requirements that are appropriate for the type of product and byproduct and the intended market. Refer to OMAR for specific market requirements.

## **2.3 Products**

### **2.3.1 Labelling**

2.3.1.1 Products shall be branded with the official inspection legend or identified by an approved method and otherwise labelled according to the requirements of Manual 15.

2.3.1.2 Refrigerated product labels shall include a statement appropriate to the ultimate preservation temperature, e.g. keep chilled or keep frozen. Labels on chilled products intended for freezing can state “keep frozen” as this would be the ultimate refrigerated state.

2.3.1.3 Products not intended for export shall be identified in such a manner that they cannot be mistaken for export eligible product, refer to Manual 15.

### **2.3.2 Sealing of shipping containers**

2.3.2.1 Shipping containers of product packed for export shall be sealed with an official MAF Food approved security seal, refer to Manual 15. Official MAF Food approved security seals shall only be used on shipping containers packed for export unless specifically approved by other MAF Food specifications.

2.3.2.2 Containers of export product shall be sealed according to the procedures specified in OMAR.

2.3.2.3 Conveyances used for the direct transfer of export product between licensed premises may be sealed by the licensee using company seals. The seal number must be unique and shown on eligibility documents.

2.3.2.4 If conveyances carrying export product are not sealed using a company seal or do not travel directly to the receiving premises, then additional documentation is required, see Section 5.3.2.

### **2.3.3 Sealing of ships holds and lockers**

When it is a requirement of a particular importing country, the holds of conventional ships shall be sealed by a competent person employed by an accredited Verification Agency or the MAF Quarantine Service, refer to OMAR.

## **2.4 Byproducts**

### **2.4.1 Pet food**

2.4.1.1 All pet food cartons shall be clearly labelled to indicate they are not intended for human consumption. Additional labelling may also be required for raw material intended for processing into pet food, refer to IS 7.

2.4.1.2 Raw material which is intended for manufacture into pet food may be transported in bulk, refer IS 7.

2.4.1.3 All pet food that is preserved by refrigeration shall be stored and transported at the preservation temperature.

### **2.4.2 Biological products**

2.4.2.1 This section only applies to products intended for biological use, including pharmaceutical use, where the raw material or any part of the handling or manufacture does not satisfy all of the requirements for products intended to be used as food.

2.4.2.2 The labels of products and byproducts intended for pharmaceutical use shall indicate they are not intended for human consumption, refer to IS 7.

2.4.2.3 All biological products that are preserved by refrigeration shall be stored and transported at the preservation temperature.

### **2.4.2 Meals**

2.4.2.1 Meal includes meat meal, meat and bone meal, blood meal and dried blood.

2.4.2.2 The conditions relating to the production of meals, including the origin of the raw materials, the processing temperatures and times and nature of the product, shall be traceable. Refer also to IS 7.

2.4.2.3 All meals shall be stored and transported under conditions that will not result in re-contamination of the meal by unprocessed raw material, contamination from other environmental sources and will minimise post-processing microbial growth.

## **2.5 Imported Products and Byproducts**

### **2.5.1 Application**

This section applies to products and byproducts that are not of New Zealand origin, i.e. not derived from animals born and reared in New Zealand, as well as re-imported New Zealand products and byproducts.

## **2.5.2 Identification**

- 2.5.2.1 All imported products and byproducts shall be identified by labels when entering any premises or system licensed or controlled by MAF. The information contained on the label shall reconcile with the information contained in the Import Health Permit.
  
- 2.5.2.2 All imported product and byproduct is to be transported to and stored at the premises specified in the Import Permit. Imported product and byproduct shall not be released from the specified premises until the identity of the product and byproduct can be verified and any requirement specified on the Import Health Permit has been complied with.

## **3 Facilities**

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### **Scope**

This section sets out the requirements for licensed or approved storage facilities and the physical requirements for non-licensed facilities in which animal products or byproducts intended for export may be held or transported. Requirement of premises extends to any ship or aircraft or any vehicle or conveyance.

### **3.1 Outcome**

The physical conditions of storage and transportation of products and byproducts shall not jeopardise their fitness for purpose.

### **3.2 General Principles**

Storage and transportation facilities shall provide environmental controls which provides adequate protection of products and byproducts from contamination, deterioration and decomposition and maintains the state 'fit for intended purpose'.

### **3.3 Licensed or Approved Premises**

#### **3.3.1 Documentation**

Operators of licensed and approved premises, including vehicle docking facilities, shall document systems for the provision and maintenance of facilities.

#### **3.3.2 Construction**

3.3.2.1 Licensed or approved premises shall be constructed according to the requirements for design and construction, refer to IS 2, IAS 2.

3.3.2.2 Vehicle docking facilities must provide protection from environmental contamination including temperature effects.

- In the case of fully protected product, there must be overhead and side protection as a minimum
- In the case of unprotected product, the facility must be constructed to edible standards, refer to IS 2
- If necessary, temperature controlling devices must be used to maintain product temperatures.

### **3.4 Conveyances**

#### **3.4.1 General Principles**

3.4.1.1 This section applies to any conveyance used for the transport of products.

- 3.4.1.2 All conveyances shall be constructed to a standard which is appropriate to the nature of the product, its form of packaging, its state of preservation and is equivalent to the respective requirements for licensed premises, refer to IS 2, IAS 2.
- 3.4.1.3 The conveyances intended to transport any refrigerated or non-refrigerated products eligible for export shall:
- (i) be constructed and maintained so that the preservation temperature is capable of being maintained at all times, and
  - (ii) in the case of refrigerated conveyances, have a calibrated temperature measuring device for measuring the internal air temperature of the conveyance at the warmest point.

It is desirable that the internal air temperature of the conveyance is continuously recorded.

- 3.4.1.4 In the case of non-refrigerated conveyances (insulated vehicles, "insuliners" and similar soft sided vehicles, port-hole type containers etc), compliance with section 3.4.1.3(i) will depend on the effectiveness of the insulation, including the seal, the conditions under which product is loaded, the weather conditions and the time of the journey, see also Section 4.5.2.4.

### 3.4.2 Unprotected product

- 3.4.2.1 Any conveyance used for transporting of unprotected products shall be constructed so that the products are fully protected from contamination from the external environment.

Fully protected generally means complete sealing of the conveyance to prevent ingress of contaminants.

- 3.4.2.2 Any surface of the conveyance that is likely to come into direct or indirect contact with unprotected food shall not be a source of contamination, as shall be the cleaning materials encountered during normal conditions of use, see also IS 2, IAS 2.

The conveyance should be fitted with a means to prevent unprotected products from contacting the floor.

- 3.4.2.3 Conveyances used for transporting unprotected products shall not be used at the same time for transporting:
- (i) other food unless physical separation can be maintained between the products and the principles of "no effect" applied, refer to IS 9: Section 4.6.5.
  - (ii) non-food goods.

### 3.4.3 By-product (untreated) transported in bulk

- 3.4.3.1 Any conveyance used for the bulk transport of untreated by-products shall be leak-proof, refer also IS 7 for requirements relating to labelling and denaturing.

## 3.5 Non-Licensed Facilities

### 3.5.1 Application

Non-licensed facilities relates to an area where products that have been prepared for shipping may be held immediately before export. These areas are not licensed but the requirements of

New Zealand law relating to premises, i.e. protecting products from contamination and deterioration and maintaining the integrity of the product, remains the responsibility of the D-G.

### **3.5.2 General**

Non-licensed facilities shall not hold or handle any product unless it is packed and sealed, with a MAF seal, in a shipping container or, in the case of non-containerised export products, is transferred immediately into the export vessel or aeroplane.

### **3.5.3 Export facilities**

- 3.5.3.1 Container terminals holding refrigerated products derived from animals shall be equipped with facilities so that the preservation temperature is maintained.
- 3.5.3.2 Airline holding facilities shall be within the airport confines and adjacent to the tarmac, refer also to the Official Assurances Programme.
- 3.5.3.3 The internal air temperature of any refrigerated shipping container holding food derived from animals shall be continuously monitored and recorded using a calibrated temperature recording device.
- 3.5.3.4 Products shall be protected during the immediate transfer of non-containerised products into any export vessel or aeroplane, refer to IS 9: Sections 4.4 and 4.8.

### **3.5.4 Transit facilities**

- 3.5.4.1 Transit facilities used for the temporary holding of sealed conveyances of refrigerated food derived from animals shall be equipped with facilities that are adequate to maintain the preservation temperature.
- 2.5.4.2 The internal air temperature of any refrigerated sealed conveyance holding food derived from animals shall be continuously monitored and recorded using a calibrated temperature recording device.

### **3.5.5 Vehicle docking facilities**

- 3.5.5.1 Vehicle docking facilities may be used for the direct transfer of export eligible products from a vehicle(s) (donor) to another vehicle(s) (receiver) provided:
  - Both the donor vehicle(s) and the receiving vehicle(s) shall be present during the transfer operation, and
  - The transfer of products shall occur as a continuous operation.
- 3.5.5.2 Products may be retained in conveyances until the transfer can be carried out as a continuous operation. Conveyances must comply with the requirements of Section 4 until products can be transferred.
- 3.5.5.3 Operations may provide for the sorting of products, during this period the preservation temperature, or colder, shall be maintained.
- 3.5.5.4 The receiving conveyance shall not be the final export shipping container.

## **4. Protection of Products and Byproducts**

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### **Scope**

This section relates to maintaining the level of protection and preservation of products and byproducts, that had been achieved by the processor, during operations at stores, throughout transportation, including VDF's, and preparatory to shipping.

### **4.1 Outcome**

The degree of protection and preservation of products and byproducts which has been achieved during their production is maintained during storage and transportation.

### **4.2 General Principles**

#### **4.2.1 Documentation**

The operation of storing products and byproducts in licensed or approved premises shall be documented. Refer to IS 8, IAS 8 for guidance.

#### **4.2.2 Maintaining appropriate conditions**

All licensed and approved stores shall be maintained in an appropriate condition and, in the case of premises handling products intended as food, according to the requirements for hygiene and sanitation, refer to IS 3: Part B and C, or equivalent.

#### **4.2.3 Maintaining refrigeration**

Refrigerated products shall be maintained at the preservation temperature or colder.

### **4.3 Documented System of Operation**

4.3.1 The operators of licensed or approved stores shall document procedures for:

- maintaining an appropriate condition of hygiene and sanitation
- the handling and storing of products and byproducts, and where applicable
- the maintenance of refrigeration.

4.3.2 The documented systems shall include the provision of criteria and the frequency of monitoring or verification activities by the operator.

### **4.4 Hygiene and Sanitation**

#### **4.4.1 Licensed or approved premises**

Licensed or approved premises handling or storing products shall be maintained according to the requirements for hygiene and sanitation outlined in IS 3, IAS 3.

#### 4.4.2 Conveyances

Conveyances, including shipping containers and ships holds, shall be maintained according to requirements which are appropriate to the nature of the product, its form of packaging and state of preservation, and are equivalent to the requirements for hygiene and sanitation outlined in IS 3, IAS 3.

- 4.4.2.1 Products shall not be placed into any store, shipping container, conveyance or ships hold until the condition of hygiene and sanitation complies with an appropriate standard, refer to 4.4.1 and 4.4.2 above.
- 4.4.2.2 The condition of hygiene and sanitation, prior to the placing of any product in a store, shipping container or conveyance shall be verified by the Licensee or, in the case of a ships hold or aircraft container immediately prior to export, the shipper.

#### 4.4.3 Food contact surfaces

All equipment and food contact surfaces used for the storage and/or transportation of unprotected product shall be cleaned and sanitised according to requirements outlined in IS 3, IAS 3 before re-use.

### 4.5 Refrigeration

#### 4.5.1 Maintaining the preservation temperature

The environmental temperatures in which chilled or frozen products and byproducts are held shall be sufficient to maintain the preservation temperature of the product. Refer also to IS 2, IAS 2 and IS 6, IAS 6 in respect of food.

Licensees should ensure that product temperatures are maintained during loading operations and that store temperatures or standards of sanitation are not significantly affected by loading operations.

#### 4.5.2 Conveyances

- 4.5.2.1 Conveyances shall be operated in such a manner that the preservation temperature of products is maintained throughout transportation.
- 4.5.2.2 Products shall not be loaded into any conveyances unless they have been reduced to their preservation temperature, see IS 6, IAS 6 or any colder temperature required by an importing country, refer OMAR.

Significant heat transfer to refrigerated products can occur during the loading and unloading of conveyances, particularly when products are placed on any surface such as landings, or into shipping containers and conveyances that are at ambient temperature.

In the absence of temperature controlled loading facilities, and when significant heat transfer is likely to occur, product temperatures should be reduced below the preservation temperature to compensate for the anticipated heat gain. Considerable care should be taken when the transport of products involves multiple journeys with sorting and consolidation of loads after each journey.

Pre-cooling of conveyances can reduce or prevent significant heat transfer. However, the loading of pre-cooled conveyances in an ambient environment may result in heavy condensation within the conveyance leading to difficulties in handling through slippery conditions and early defrost operations after the doors are closed with the possibility of frosting of evaporators due to the high moisture.

- 4.5.2.3 Refrigerated conveyances shall not be used in excess of their designed capacity.
- 4.5.2.4 Insulated or non-insulated conveyances shall not be used when the conditions of loading and/or duration of the transport would result in failure to maintain the preservation temperature.

A considerable amount of technical information is available on heat gain (temperature rise) in refrigerated products transported in insulated or non-insulated conveyances that would enable licensees and transport operators to develop operational parameters that should ensure compliance with the requirements of this section. The Meat Industry Association of New Zealand (Inc) has guidelines that may be useful in this regard.

- 4.5.2.5 Products that are warmer than the preservation temperature shall be re-assessed for their suitability for intended use and, where appropriate be subjected to active refrigeration to restore the preservation temperature. Refer also to IS 6, IAS 6.
- 4.5.2.6 Products that become warmer than a minimum temperature specified by a market may not be eligible for export to that market irrespective of whether the minimum product temperature required by the market had been restored. Refer to OMAR.
- 4.5.2.7 Notwithstanding Sections 4.5.2.1 and 4.5.2.2, fresh meat or game meat, poultry and meat from Ostriches and Emus intended for export may be transported between licensed export premises or places during the period of post slaughter management, i.e. warmer than +7 °C, subject to the process being:
- (i) under the control of a single company; and
  - (ii) developed according to HACCP principles; and
  - (iii) validated as complying with the objective PHI criteria specified in IS 6, IAS 6; and
  - (iv) fully documented according to IS 8, IAS 8, the documented system shall include the identity and operating parameters of the vehicle; and
  - (v) approved according to Section 3.2 of TD 99/66; and
  - (vi) verified according to PBV principles as though it were a separate premises.
- Note:** This process may not satisfy the requirements of an importing country, see OMAR.

- 4.5.2.8 Notwithstanding Sections 4.5.2.1 and 4.5.2.2, fresh meat or game meat, poultry and meat from ostriches and emus intended for sale on the domestic market may be transported from licensed or approved slaughter premises during the period of post slaughter management, i.e. warmer than +7 °C, subject to:
- (i) the Licensee informing the recipient of products of additional requirements to further chill products and that potential public health hazards associated with the growth of pathogenic bacteria need to be managed.
  - (ii) the process being acceptable to:
    - the local authority accountable for the administration of food hygiene requirements; and
    - the receiving premises; or

- (iii) the process being validated as part of the Food Safety Programme (FSP) of the receiving premises;
- (iv) the duration of the transport does not exceed the times in **Tables 1 or 2** depending on the deep meat temperature\* of products at the time of loading and whether active refrigeration is available; and
- (v) the transport operator maintaining verifiable evidence of the temperature of products at loading and the duration of the transport.

**Table 1 – Vehicles with ACTIVE refrigeration**

Deep Meat Temperature (°C)*	Maximum Duration of Transport (hours)**
25	1
22	2
20	3
18	4
15	6
12	12
10	24

**Table 2 – Vehicles without refrigeration or refrigeration is INACTIVE**

Deep Meat Temperature (°C)*	Maximum Duration of Transport (hours)
22	1
20	1.5
18	2
15	3
12	6
10	10

\*deep meat temperature is measured at the centre of a carton or at the centre of the part of a carcass or cut that has the greatest cross section.

\*\*Alternative transport times may be applied in the case of vehicles that can demonstrate that the products are subjected to active chilling (reduction in temperature) throughout the transport journey and/or when the process of chilling can be validated as in 4.5.2.7.

The time-temperature allowances provided in Tables 1 and 2 recognise that products at the receiving premises must be stored in rooms operating at +2 °C or colder, reg 44(1), Food Hygiene Regulations 1974.

## 4.6 Handling of Product

### 4.6.1 Application

This section applies to the handling of products in licensed and approved stores, and during transportation between premises for further processing, or delivery to the domestic market, or packing for export.

#### 4.6.2 Temperature measurements

Procedures for determining product temperatures shall be performed hygienically:

- (i) environmental contamination of products is to be avoided,
- (ii) wrapping/packaging materials are to be incised,
- (iii) blades, drill bits and temperature probes are to be sterilised,
- (iv) wrapping/packaging materials are to be re-sealed after the temperature has been obtained. In the case of export product, the seal must indicate the carton has been checked for temperature at that point.

**Note:** when assessing compliance with the preservation temperature of frozen products covered by this industry standard, the following procedures may be considered:

- Using a calibrated thermometer measure the temperature at the thermal centre of cartons or deep hind leg of carcasses.
- A 0.5 °C tolerance is allowed for all temperature measurements.
- Product items should be selected diagonally across the opening face of the conveyance.
- Accept the consignment if all 3 measurements comply.
- If 1 measurement fails to comply, select and measure 2 further product items from the conveyance adjacent to the non-complying item.
- If both of these measurements comply, accept the consignment.
- When the whole consignment is deemed non-complying, product items may be individually measured to identify those items that do and those that do not comply with the preservation temperature.

#### 4.6.3 Combustion gases

Contamination of products by gases from maintenance activities (e.g. welding) and internal combustion engines shall be prevented.

#### 4.6.4 Handling of unprotected product

4.6.4.1 All personnel, including transport operators, shall comply with the requirements for personnel, refer to IS 3, IAS 3. Both the despatching and receiving Licensee is accountable for compliance in this regard.

4.6.4.2 Unprotected product shall not contact any surface which does not comply with the requirements for food contact materials, refer to IS 2, IAS 2.

Product in bulk bins which comply with requirements for food contact surfaces would be regarded as packaged product.

4.6.4.3 Unprotected product shall not be placed on the floor of any conveyance except where there is adequate protection by a suitable food contact material. Such material shall:

- be sterilised or sanitised after each use or otherwise discarded,
- not be walked on during loading or unloading operations.

#### 4.6.5 Storing or transporting products

4.6.5.1 Products shall not be stored, transported, or packed for export with any non-food products, other foods, or other goods, except where the risk of contamination is assessed as low.

- 4.6.5.2 Rooms storing unprotected products intended as food shall, at the time, be used exclusively for that purpose.
- 4.6.5.3 Fresh fruit and vegetables and other types of products shall not be stored or transported with chilled animal products intended as food if they produce any odour, including respiratory gases, that is likely to have any deleterious effect on the animal product.

Wrapping food of animal origin or fruit or vegetables may be sufficient to protect the products intended as food from contamination.

- 4.6.5.4 Conveyances used to transport byproducts shall not be used to transport food.

Fully packaged refrigerated pet food and packaged refrigerated product intended for pharmaceutical use may be stored in the same room, or transported in the same conveyance, as fully packaged refrigerated food provided contamination of food is minimised.

## 4.7 Product Handling at the Point of Export

### 4.7.1 Application

This section applies to the handling of products and byproducts at wharves, in the case of conventional shipping, and airports or airport transit facilities. See also IS 9: Section 4.4 relating to requirements for hygiene and sanitation of shipping containers and ships holds.

### 4.7.2 Wharf handling

- 4.7.2.1 Products intended as food shall be protected.

In the case of carcasses, stockinette and hessian bags may be regarded as adequate protection for some countries. However, for most markets, polythene and stockinette or hessian would be regarded as the minimum standard for protection, see OMAR.

- 4.7.2.2 Products intended as food shall be handled expeditiously, the temperature of frozen products on the wharf at the time of loading into the ships hold shall not be warmer than -6 °C. Note: some importing countries may have more stringent requirements e.g. product that is warmer than -12°C is ineligible for EU, refer to OMAR.

### 4.7.3 Airport handling

- 4.7.3.1 Products intended as food shall be protected. In the case of carcasses, stockinette and hessian bags may be regarded as adequate protection.
- 4.7.3.2 Products shall not be held for longer the 24 hours at an airline holding facility and all products shall be loaded onto aircraft, refer also to the OAP.
- 4.7.3.3 Preparing and loading of refrigerated products shall be carried out in such a manner that any rise in product temperature is minimal.

The use of carbon dioxide is allowed to minimise temperature rises.

## **4.8 Control of Damaged Product**

Damaged packaged product shall be handled and re-packaged according to the requirements of IS 6, IAS 6.

## 5. Documentation

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### Scope

This section relates to documentation which accompanies products and byproducts during transport and storage that maintains their eligibility for export certification.

### 5.1 Outcome

Any assurances provided in the issue of an export certificate shall be verifiable.

### 5.2 General Principles

All information relative to the name and type of a product and byproduct, the nature of its packaging and preservation, its suitability for a particular market and the maintenance of its fitness for the intended purpose, including market eligibility, shall be identified with the product and byproduct at all stages throughout its preparation, storage and transportation.

### 5.3 Inventory Control

#### 5.3.1 Licensed and approved premises

5.3.1.1 The Licensee or operator of an approved premise, other than a vehicle docking facility, shall keep an inventory of all product and byproduct held in store. In the case of products, the inventory shall include, but is not restricted to, the following information for each product type:

- the name and type of product, including species;
- the number of items;
- the lot identification (this may include the slaughter, refrigeration or production date. Refer also to OMAR);
- the intended market;
- the market eligibility;
- any market restrictions;
- any inwards eligibility documents, refer to the Official Assurances Programme;

5.3.1.2 The inventory of products and byproducts shall, as closely as possible, correspond with the products and byproducts physically held in store on the premises. Any discrepancies are to be itemised on the inventory.

5.3.1.3 The management of the inventory control shall form part of the documented system. Refer to IS 8, IAS 8 for guidance.

5.3.1.4 Changes to product and byproduct status that may affect market eligibility shall be recorded in the inventory.

- (i) The country listing of the premises where products and byproducts are stored shall be compatible with the intended market(s). Where the listing of the storage premises differs from the intended market(s), the market eligibility shall reflect the difference.

- (ii) Failure to maintain any temperature specified as a market access condition will affect market eligibility, refer also to OMAR. It is the responsibility of the Licensee to demonstrate compliance with all temperature requirements, see IS 9: Section 4.5, this shall also include the temperature of inwards products.
- (iii) Procedures relating to process failure shall be followed in the event of failure to maintain the preservation temperature, see IS 6, IAS 6. The extent and degree of failure will need to be assessed in relation to food safety and regulatory outcomes.
- (iv) Products and byproducts shall not be shipped to any market where listing of the storage premises is a condition of certification for that market.

5.3.1.5 Products and byproducts on receipt or despatch shall correspond with:

- the description of products and byproducts on eligibility documents,
- the differences in quantities of product and byproduct on the inventory, and
- the description of products and byproducts physically held in store, refer to 5.3.1.2.

5.3.1.6 When licensed or approved premises are used as vehicle docking facilities the records described in Section 5.3.2.2 shall be maintained.

## **5.3.2 Listed transport operators and vehicle docking facilities**

### *5.3.2.1 Listed transport operators*

All consignments shall be accompanied by an operator despatch/loading document showing, at a minimum, the vehicle reference number, e.g. fleet number or licence plate, including any annotations for changes of vehicle and vehicle reference number during the journey.

### *5.3.2.2 Vehicle docking facilities*

Shall keep records showing the date of arrival of the product, transport firm or licensee name (if the product is carried by a licensee), vehicle reference number and the condition of the product.

## **5.4 Certification**

**5.4.1** Certification, including eligibility documents, shall comply with the Official Assurances Programme.

**5.4.2** E-cert eligibility documents for all product transfers between licensed or approved premises shall record the date of departure and either:

- the name of the listed transport operator, or
- the words “licensee vehicle”, and
- when used, the unique seal number that has been applied by the licensee.