



Australian Government

Department of Education, Employment and Workplace Relations

SFIFISH209C Maintain the temperature of seafood

Release: 1

SFIFISH209C Maintain the temperature of seafood

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency involves maintaining the temperature of seafood and seafood products at appropriate levels. The techniques used include icing, preserving in chilled brine and freezing. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
------------------------	---

Application of the Unit

Application of the unit	This unit is applicable to onboard fishing vessels and all premises involved in the production, handling and distribution of seafood and seafood products. It does not refer to live animals being transported or held. The operation of refrigeration plant is covered by SFISTOR301C <i>Operate refrigerated storerooms</i>. Assembling and loading of seafood and seafood product is covered by SFISTOR203C <i>Assemble and load refrigerated product</i>. Transport of live seafood is covered by SFISTOR204A <i>Prepare, pack and dispatch stock for live transport</i>. All enterprise or workplace procedures and activities are carried out according to relevant government regulations, licensing and other compliance requirements, including occupational health and safety (OHS) guidelines, food safety and hygiene regulations and procedures and ecologically sustainable development (ESD) principles. Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. Appropriate personal protective equipment (PPE) is selected, checked, used and maintained.
--------------------------------	--

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare temperature control system for receiving <i>seafood</i>	1.1. Storage containers are selected, gathered, cleaned and arranged to accept seafood. 1.2. Temperature control system is arranged to accept seafood or containers of seafood safely and hygienically. 1.3. Seafood is loaded into selected storage containers to ensure that the quality of the seafood is maintained.
2. Preserve seafood using a temperature control system	2.1. Containers of seafood are loaded into a prepared refrigeration system, where appropriate. 2.2. Seafood containers are arranged within the refrigeration system, where appropriate, to ensure efficient unloading and maintenance of appropriate product temperature. 2.3. Cooling medium is applied to seafood. 2.4. Temperature control system is monitored to ensure operating efficiency. 2.5. Seafood temperature is measured, monitored and maintained within guidelines and corrective action is taken, when required. 2.6. Seafood is handled safely and hygienically.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
• arranging seafood containers • cleaning a temperature control system • monitoring temperature control system and seafood temperature • using documentation associated with the movement of seafood between locations • using seafood containers • using seafood handling practices: • hygiene • safe lifting.

REQUIRED SKILLS AND KNOWLEDGE**Literacy skills used for:**

- reading and writing product labels, inventories, invoices and receipts.

Numeracy skills used for:

- monitoring temperature.

Required knowledge

- characteristics, procedures and uses of cool rooms
- cool chain principles and practices
- correct storage temperature for a range of produce
- methods of ensuring effective temperature control using a variety of media
- methods of maintaining stability and watertight integrity when loading and unloading from vessels
- OHS standards
- personal, workplace and product hygiene
- planning the placement of seafood to aid loading and unloading
- principle of cooling product to optimise quality
- quality changes that could take place if product or stock is incorrectly handled/stored
- relationship between seafood temperature and spoilage
- storage methods relevant to different seafood products
- temperature settings within storage facilities.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment evidence required to demonstrate competence in this unit

Assessment must confirm the ability to:

- maintain product quality and safety through correct temperature control
- monitor the critical temperature of seafood.

Assessment must confirm knowledge of:

- appropriate temperatures
- food safety legislation requirements
- parameters that indicate seafood quality.

Context of and specific resources for assessment

Assessment is to be conducted at the workplace or in a simulated work environment.

Resources may include:

- temperature measuring equipment
- facilities for handling seafood product
- seafood containers
- seafood
- ice rooms
- brine tanks
- freezers.

Method of assessment

The following assessment methods are suggested:

- written or oral short-answer testing
- observation of practical demonstration
- practical exercises
- project work.

Guidance information for assessment

This unit may be assessed holistically with other units within a qualification.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant government regulations, licensing and other compliance requirements may include:

- biodiversity and genetically modified organisms
- biosecurity, translocation and quarantine
- Australian Quarantine Inspection Service (AQIS) and other import requirements
- business or workplace operations, policies and practices
- correct marketing names and labelling
- ESD principles, environmental hazard identification, risk assessment and control
- fisheries or aquaculture regulations, permits and licences
- food safety, Hazard Analysis Critical Control Point (HACCP), hygiene and temperature control along chain of custody
- health and welfare of aquatic animals
- Indigenous land rights and cultural activities, including fishing by traditional methods
- maritime and occupational diving operations, safety at sea and pollution control
- OHS hazard identification, risk assessment and control.

OHS guidelines may include:

- appropriate workplace provision of first aid kits and fire extinguishers
- clean, uncluttered, hygienic workplace
- codes of practice, regulations and/or guidance notes which may apply in a jurisdiction or industry sector
- enterprise-specific OHS procedures, policies or standards
- hazard and risk assessment of workplace, maintenance activities and control measures
- induction or training of staff, contractors and visitors in relevant OHS procedures and/or requirements to allow them to carry out their

RANGE STATEMENT	
	duties in a safe manner • OHS training register • safe lifting, carrying and handling techniques, including manual handling, and the handling and storage of hazardous substances • safe systems and procedures for outdoor work, including protection from solar radiation, fall protection, confined space entry and the protection of people in the workplace • systems and procedures for the safe maintenance of property, machinery and equipment, including hydraulics and exposed moving parts • the appropriate use, maintenance and storage of PPE.
<i>Food safety and hygiene regulations and procedures</i> may include:	• Australian Shellfish Sanitation program • display, packaging and sale of food, including seafood and aquatic products • equipment design, use, cleaning and maintenance • exporting requirements, including AQIS Export Control (Fish) orders • handling and disposal of condemned or recalled seafood products • HACCP and other risk minimisation systems • location, construction and servicing of seafood premises • people, product and place hygiene and sanitation requirements • Primary Products Standard and the Australian Seafood Standard (voluntary) • processing, further processing and preparation of food, including seafood and aquatic products • product labelling, tracing and recall • receipt, storage and transportation of food, including seafood and aquatic products • requirements set out in Australian and New Zealand Food Authority (ANZFA) Food Standards Code • temperature and contamination control along chain of custody.

RANGE STATEMENT	
<i>ESD principles</i> may include:	• applying animal welfare ethics and procedures • controlling effluents, chemical residues, contaminants, wastes and pollution • controlling weeds, pests, predators and diseases, and stock health maintenance • maintaining biodiversity by sustainable fisheries or broodstock/seedstock collection • minimising noise, dust, light or odour emissions • reducing energy use • reducing interactions with native and protected flora and fauna, marine or land parks or areas • reducing live cultured or held organisms from escaping into environment • undertaking environmental hazard identification, risk assessment and control • undertaking facility quarantine, biosecurity and translocation of livestock and genetic material • using and recycling of water, and maintaining water quality.
<i>PPE</i> may include:	• buoyancy vest or personal floatation device (PFD) • gloves, mitts or gauntlets, and protective hand and arm covering • hard hat or protective head covering • hearing protection (e.g. ear plugs and ear muffs) • insulated protective clothing for freezers or chillers and refrigeration units • non-slip and waterproof boots (gumboots) or other safety footwear • personal locator beacon or Emergency Position Indicating Radio Beacon (EPIRB) • protective eyewear, glasses and face mask • protective hair, beard and boot covers • protective outdoor clothing for tropical conditions • respirator or face mask • safety harness • sun protection (e.g. sun hat, sunscreen and sunglasses) • uniforms, overalls or protective clothing (e.g.

RANGE STATEMENT	
	mesh and waterproof aprons) waterproof clothing (e.g. wet weather gear and waders).
<i>Seafood</i> may include:	- fresh, frozen or live - species and products in any state, for example: - aquatic plants - cooked or raw - fillets - opened or unopened molluscs - ornamental species or other aquatic products - processed or unprocessed seafood - whole fish.
<i>Storage containers</i> may include:	- fish boxes - freezer cartons: - cardboard - plastic - netting bags.
<i>Arranged</i> to ensure:	- critical temperature of product is achieved and maintained - stability of vessels: - free surface effect - longitudinal and transverse - systematically to aid loading and unloading, and packing and unpacking - watertight integrity of vessels: - hatches replaced - ice removed - plastic bags stowed - sumps clear
<i>Temperature control system</i> may:	- involve chilling only or chilling and freezing - use ice - use refrigeration (the operating temperature of refrigeration system is attained before seafood is loaded).
<i>Quality of the seafood</i> is maintained by:	- contact with cooling medium - identifying species by correct fish name on label - including packing date on label

RANGE STATEMENT	
	• preventing: • bruising • crushing • freezer burn • using rate of cooling appropriate to seafood product • using appropriate packaging.
<i>Appropriate product temperature</i> will vary according to the:	• biological and environmental requirements of the species • state of the product, for example: • cooked • frozen • live • opened • processed.
<i>Cooling medium</i> may be:	• ice • ice slurry • chilled brine • forced draught coolers • plate freezers • blast freezers.
<i>Operating efficiency</i> is achieved by:	• monitoring components and de-icing: • evaporators • valves.
<i>Handled safely and hygienically</i> may include:	• following stock or product rotation practices • using appropriate PPE • checking and improving air quality in the refrigeration system • using safe lifting practices.

Unit Sector(s)

Unit sector	Fishing operations
--------------------	--------------------

Co-requisite units

Co-requisite units		

Competency field

Competency field	
------------------	--