



Australian Government

Department of Education, Employment and Workplace Relations

SFIPROC502C Produce technical reports on seafood processing systems

Release: 1

SFIPROC502C Produce technical reports on seafood processing systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit of competency involves producing accurate flow diagrams detailing the sequence of activities employed in commercial processing or manufacturing of seafood products. It includes the need to consider regulations impacting on the way food is manufactured and to analyse specific activities on the basis of chemical, physical, microbiological and energy considerations relating to product specifications.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.</p>
------------------------	---

Application of the Unit

Application of the unit	<p>All enterprise or workplace procedures and activities are carried out according to <i>relevant government regulations, licensing and other compliance requirements</i>, including <i>occupational health and safety (OHS) guidelines, food safety and hygiene regulations and procedures</i> and <i>ecologically sustainable development (ESD) principles</i>.</p>
--------------------------------	--

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. Produce detailed process flow diagrams	<p>1.1. Flow diagrams are produced in a form consistent with product specifications, including clearly defined commencement and conclusion points.</p> <p>1.2. Flow diagrams are processed, utilising consistent symbols and language.</p> <p>1.3. Processing activities requiring control are nominated on the flow diagram with tolerances clearly identified.</p> <p>1.4. Inputs into the process are clearly identified on the diagram.</p>
2. Identify and quantify energy requirements at relevant stages of the production process	<p>2.1. Analyses of processing systems are produced to determine energy efficiency.</p> <p>2.2. Conclusions from analyses are used to review processing parameters.</p>
3. Determine microbiological factors relating to the production process	<p>3.1. Reports are prepared to justify the inclusion of each microbiological parameter of the product specification.</p> <p>3.2. Microbiological specifications for raw materials outline the consequences of non-conformance.</p> <p>3.3. Reports identify all stages in the process which have microbiological implications.</p>
4. Define chemical and physical aspects of the production process	<p>4.1. Reports are prepared to justify the inclusion of each chemical and physical parameter of the product specification.</p> <p>4.2. The chemical and physical specifications for raw materials outline the consequences of non-conformance.</p> <p>4.3. Reports identify all stages in the process which have chemical and/or physical implications.</p>
5. Determine packaging and storage conditions required for seafood product	<p>5.1. Reports detailing the parameters for product packaging are prepared.</p> <p>5.2. General and specific product storage parameters or requirements are identified.</p> <p>5.3. Packaging and/or storage parameters match the product specifications.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collecting, recording and analysing data
- communicating technical requirements to staff in an understandable format
- communicating with work teams and managers
- coordinating activities, supplies and processes
- giving attention to detail
- identifying and monitoring critical control points
- identifying skill gaps in processing activities
- interpreting regulations, standards and specifications
- optimising a range of processing equipment
- planning, including production planning
- solving problems
- scheduling tests.

Literacy skills used for:

- compiling reports
- completing complex forms
- interpreting technical documents/publications
- reading and interpreting information, including specifications, standards and regulations
- recording and interpreting data.

Numeracy skills used for:

- calculating averages and/or percentages
- calculating production data
- calculating temperature and other thermal requirements
- estimating time, volume, flows and pressures
- estimating safe working loads.

Required knowledge

- corrective actions allowable within the requirements of the enterprise food safety plan
- production and processing systems consistent with the scale of the enterprise
- production and process planning and organisation consistent with the scale of the enterprise
- product quality parameters described by the enterprise food safety plan and any

REQUIRED SKILLS AND KNOWLEDGE

relevant regulations, including those for food product, packaging, labelling and storage

- species typically processed by the enterprise.

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:

- analyse the operation of a production unit and to develop recommendations to improve the volume and quality of outputs against product specifications, as well as satisfying the needs of the enterprise OHS policies and the requirements of food safety regulations.

Assessment must confirm knowledge of:

- requirements of HACCP and the food safety plan
- enterprise OHS policy and procedures
- process parameters, including safe working practices, food safety and environmental requirements
- the energy consumption of current and alternative process methods
- causes of product contamination and/or cross-contamination
- significance of, and methods for, controlling contamination within the process
- production scheduling, batch or recipe instructions, specifications and identifying process control points
- equipment operational parameters
- process control instrumentation
- sampling and test schedules
- cleaning and sanitation schedules
- routine preventative maintenance requirements
- documentation, recording and reporting requirements
- enterprise product specifications.

Context of and specific resources for assessment

Worksites used for assessment must comply with relevant legislation, industry standards and/or practices. Equipment used should be representative of that used in the workplace. Procedures and documentation used should be those which would be used typically in the workplace. Compliance with statutory OHS, food safety,

EVIDENCE GUIDE	
	<p>export/import inspection, hygiene and/or environmental requirements relevant to the seafood industry should be emphasised.</p> <p>Resources may include:</p> <ul style="list-style-type: none"> • cleaning and sanitation schedules • enterprise standard operating procedures (SOP's), including corrective actions and material safety data sheets (MSDS) • equipment representative of that used in the workplace • food safety and other relevant technical standards, including microbiological data • procedures and documentation used typically in the workplace • process documentation • product specifications, control points and processing parameters.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • project (work or scenario based) • workplace documentation, including technical reports • written or oral questions.
Guidance information for assessment	<p>This unit may be assessed holistically with other units within a qualification.</p>

Range Statement

RANGE STATEMENT	
<p>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.</p>	
<i>Relevant government regulations, licensing and other compliance</i>	<ul style="list-style-type: none"> • ESD principles, environmental hazard identification, risk assessment and control • food safety, Hazard Analysis Critical Control

RANGE STATEMENT*requirements* may include:

- Point (HACCP), hygiene and temperature control along chain of custody
- imports quarantine and inspection, and importing approved arrangements for Australian Quarantine Inspection Service (AQIS), Australian Customs Service (ACS) and Biosecurity Australia (BA)
- land, buildings and vehicles:
 - buildings and structures design and appearance, constructions and additions
 - poaching, trespass and theft
 - road laws for use of motor vehicles, bikes, trucks and other transport equipment
 - use of firearms
 - use of utilities, including water, natural gas, electricity and sewage
 - water or land lease, tenure or ownership and use
- business or workplace operations, policies and practices:
 - commercial law, including fair trading and trade practices
 - consumer law
 - corporate law, including registration, licensing and financial reporting
 - disability policies and practices
 - equal opportunity, anti-discrimination and sexual harassment
 - industrial relations and awards, individual employment contracts and share of catch agreements
 - jurisdictional variations
 - superannuation
 - taxation
 - trade practices
 - warnings and dismissals
 - worker's compensation
- OHS hazard identification, risk assessment and control
- product quality assurance:
 - correct naming and labelling (e.g. country

RANGE STATEMENT	
	<p>of origin, Australian Fish Names Standard and eco-labelling)</p> <ul style="list-style-type: none"> • correct quantities, sizes and other customer requirements • third-party certification (e.g. Australian Grown and ISO 14001:2004 Environmental management systems).
<i>OHS guidelines</i> may include:	<ul style="list-style-type: none"> • 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 and 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 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:	<ul style="list-style-type: none"> • 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

RANGE STATEMENT

	<p>recalled seafood products</p> <ul style="list-style-type: none"> • HACCP, food safety program, and other risk minimisation and quality assurance 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 and state and territory food regulations • temperature and contamination control along chain of custody.
<i>ESD principles</i> may include:	<ul style="list-style-type: none"> • controlling the use and recycling of water, and managing water quality and quantity • increasing use of renewable, recyclable and recoverable resources • managing environmental hazard identification, risk assessment and control • managing imported products quarantine and inspection, facility biosecurity, translocation of livestock and genetic material, and health certification • managing, controlling and treating effluents, chemical residues, contaminants, wastes and pollution • minimising noise, dust, light or odour emissions • planning environmental and resource efficiency improvements • preventing genetically modified organisms and live cultured or held organisms from escaping into environment • reducing emissions of greenhouse gases • reducing use of non-renewable resources

RANGE STATEMENT	
	<ul style="list-style-type: none"> reducing energy use and introducing alternative energy sources.
<i>Processing activities requiring control</i> may include:	<ul style="list-style-type: none"> energy efficiency of the process enterprise HACCP plan product specifications skills required to process product to the required specification the requirements of food safety standards.
<i>Energy requirements</i> may include:	<ul style="list-style-type: none"> component composition heat/energy efficiency heating/cooling rates material temperature product or material flow rate storage conditions required for finished product.
<i>Microbiological factors</i> may include:	<ul style="list-style-type: none"> the measurement of pathogenic and spoilage microorganisms present in seafood and the processes for maintaining safe levels during all processing stages.
<i>Chemical and physical aspects</i> may include:	<ul style="list-style-type: none"> determining the presence or absence of chemical contaminants methods to exclude physical contamination temperature and other environmental conditions necessary to ensure food safety the enterprise HACCP plan.
<i>Packaging and storage conditions</i> may include:	<ul style="list-style-type: none"> customer requirements enterprise capacity to accommodate finished product food standards and other technical standards importing or exporting country requirements product specifications regulations relating to labelling and/or packaging.

Unit Sector(s)

Unit sector	Seafood processing
--------------------	--------------------

Co-requisite units

Co-requisite units		

Competency field

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