Australian Government

Department of Education, Employment and Workplace Relations

FDFFST4051A Identify and implement product safety and quality processes for fish and seafood products

Release: 2

FDFFST4051A Identify and implement product safety and quality processes for fish and seafood products

Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit covers the skills and knowledge required to identify and implement product safety and quality processes for fish and seafood products.

Application of the Unit

Application of the unit	This unit applies to food science and technology personnel who have roles in product design, quality assurance and production management. The unit typically applies to staff who have responsibility for maintaining product safety, quality and efficiency of fish and seafood products. This unit includes using knowledge of food science and processes to determine the required food safety, quality and performance required from food production equipment. Depending on the workplace application, liaison may be required with engineering and maintenance specialists.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Identify harvesting and storage practices for fish and seafood	1.1 Techniques used to harvest fish and seafood are identified 1.2 Appropriate storage procedures for fish and seafood products to prevent spoilage are selected 1.3 Spoilage organisms associated with fish and seafood are identified
2. Select the processing techniques and technology used to produce various fish and seafood products	2.1 Sensory evaluation of fish and/or seafood is performed 2.2 The suitability of the fish and/or seafood for use in the manufacturing process is assessed 2.3 The manufacturing process used to produce a pickled, cured, frozen, or canned fish and/or seafood is identified
3. Monitor commercial techniques to manufacture fish and/or seafood product samples	3.1 Appropriate manufacturing process to produce "value-added" fish and/or seafood products is established 3.2 A process chart is constructed for a selected fish or seafood product 3.3 The production system is set to the required operating specifications and production to specification verified 3.4 Testing techniques are carried out on product samples
4. Review production processes	4.1 The critical control points (CCPs) and critical limits for product safety are reviewed 4.2 Operating procedures are reviewed for food safety and quality 4.3 The OHS plan is reviewed for processing of food products 4.4 Environmental impacts and associated costs are reviewed for processing of food products

Required Skills and Knowledge

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

Required skills include:

Ability to:

- classify fish and seafood classes according to their phylum/species
- select appropriate storage procedures for fish and seafood products to prevent spoilage
- perform sensory evaluation of fish and/or seafood
- assess the suitability of the fish and/or seafood for use in the manufacturing process
- establish the manufacturing processes used to produce "value-added" fish and/or seafood products
- manufacture a range of sample fish and/or seafood products
- construct a process chart for a selected fish or seafood product

Required knowledge includes:

Knowledge of:

- fish and seafood classes according to their phylum/species
- species of fish and seafood which are generally used in food industry/retail
- harvesting techniques
- storage procedure for fresh and cooked fish and seafood
- spoilage organisms associated with fish and seafood
- sensory evaluation of fish and/or seafood
- manufacturing processes used to produce pickled, cured, frozen and canned fish and/or seafood
- manufacturing processes used to produce "value-added" fish and/or seafood product such as fish/seafood nuggets, sushi and sushimi
- testing procedures for raw materials through to manufactured product
- stages of production, CCPs and critical limits
- packaging procedures
- quality and continuous improvement processes

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	A person who demonstrates competency in this unit must be able to produce samples of fish and seafood products, and to provide information and data for reviewing the production system
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Critical aspects of assessment must include evidence of the ability to use commercial processing techniques to produce samples of fish and seafood products, to implement packaging and storage arrangements for fish and seafood products, and to review the production system for food safety and quality and environmental impact.
Context of and specific resources for assessment	Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment. Assessment must occur in a real or simulated workplace where the assessee has access to: • Production process and related equipment, manufacturers' advice and operating procedures • Suitable fish and seafood and production facilities to produce product samples • Tests used to report relevant product/process information and recorded results
Method of assessment	The following assessment methods are suggested: • Analysis of product and process carried out under the candidate's supervision • Written and/or oral questioning to assess knowledge and understanding • Observation of candidate conducting a range of processes and tests • A report on review of the production system

EVIDENCE GUIDE	
Guidance information for assessment	Evidence should be gathered over a period of time in a range of actual or simulated environments.

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.	
Occupational health and safety requirements	Federal and state legislation, regulations, and codes of practice Enterprise requirements Safety Data Sheets (SDSs) for hazardous substances
Regulations	Australian and international food safety standards Australian Quarantine Inspection Service (AQIS) Export Control (Fish) Orders International, Australian and State EPA protocols and regulations regarding effluent Quality system requirements
Materials, equipment and systems	Fish/seafood processing chemicals, fish/seafood processing equipment may include smoking equipment and curing equipment, knives, cutting bench, bandsaw, fish filleting troughs, fish tubs and trays, fish skinning machines, thaw tank, peelings baskets, scales and shucking knives.
Fish & Seafood Species	Fish may include flounder, john dory, mirror dory, snapper, gemfish, red fish, flathead, sea bream, kingfish, jewfish, blue eye, mackerel, Atlantic salmon, ocean trout. Seafood may include squid, octopus and cuttlefish species; lobsters, bugs, prawns, crabs, yabbies; oyster, scallop, abalone and mussel species. "Value-added" products may include fish/seafood nuggets , sushi, sushimi, crab sticks and spring rolls.

Unit Sector(s)

Unit sector	Technical