**Australian Government**

**Department of Education, Employment and Workplace Relations**

# FDFFST4036A Implement and review the processing of confectionery products

**Release: 2**

**INDUSTRY SKILLS COUNCILS**
Creating Australia's Future

## FDFFST4036A Implement and review the processing of confectionery products

## Modification History

April 2012: Minor typographical corrections.

## Unit Descriptor

| Unit descriptor | This unit covers the skills and knowledge required to implement and review the standards and procedures for the preparation and manufacture of confectionery products. |
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## 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 in food production in the confectionery sector. |
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| | 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.

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## Employability Skills Information

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| **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 |
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| 1. Prepare for the manufacture of confectionery products | 1.1 The statutory compositional requirements for the different types of confectionery products is established |
| | 1.2 The required formulation of confectionery products is selected |
| | 1.3 The appropriate production system and the preferred sequence of activity to prepare the system for operation is selected |
| | 1.4 Equipment is prepared and safe operating procedures accessed for its operation |
| 2. Monitor the manufacture of confectionery products to ensure quality standards are met | 2.1 Production schedule is implemented to ensure all resources and requirements are available and meet company requirements |
| | 2.2 Production system is set to operating specifications before and during production |
| | 2.3 Concentration and drying procedures are implemented and monitored |
| | 2.4 Data requirements appropriate for food safety, quality and production standards are identified |
| | 2.5 Data collection points consistent with equipment capabilities and data requirements are identified |
| | 2.6 Procedures to deal with non-conformance in relation to process and the final product are developed |
| | 2.7 Process control system is implemented and monitored |
| 3. Diagnose, rectify and/or report problem arising from the preparation and manufacture of confectionery products | 3.1 Sensory evaluation and product testing protocols are established to identify defects and maintain organoleptic quality of food |
| | 3.2 Identified adjustments to inputs, process & equipment are implemented |
| | 3.3 Problems are reported to designated person according to company policies and procedures |
| 4. Review production processes | 4.1 The critical control points (CCPs) and critical limits for product safety are reviewed |
| | 4.2 A sampling plan is developed and implemented |
| | 4.3 Sensory analysis is conducted and analysed |
| | 4.4 Food tests are undertaken and data generated for the product label |
| | 4.5 Operating procedures and the process control systems are reviewed for food safety and quality |
| | 4.6 Safe work systems for processing of confectionery products are reviewed |
| | 4.7 Environmental impacts and energy efficiencies are reviewed for processing of confectionery products |

# Required Skills and Knowledge

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

## Required skills include:

### Ability to:

- interpret market specifications for confectionery products
- plan the production processes related to confectionery products
- monitor the output of each of the processes used in the preparation and manufacture of confectionery products
- manage production systems for preparation and manufacture of confectionery products
- check product against market specifications for confectionery
- manage the processes used in the preparation and manufacture of confectionery products
- operate equipment and accessories used in the preparation and manufacture of confectionery products.

## Required knowledge includes:

### *Knowledge of:*

- the range of confectionery products including chocolate and compound chocolate confectionery, liquorice (both straps and all sorts), sugar confectionery types, "sugar free" confectionery types, gum based types and panned product types
- production systems used for the preparation, manufacture, forming and packaging of the range of confectionery products  described above
- the production system for the preparation and manufacture of confectionery products including production instruction, quality assurance requirements and or/specifications, production specification and or/standards, production equipment, production procedures, cleaning procedures and materials and raw materials
- different formulations for confectionery products
- the role of the major ingredients found in confectionery products
- preparation and manufacture of extruded products including  product preparation, cooking and processing, extrusion, packaging, and storage and distribution
- critical factors in the preparation and manufacture of confectionery products
- resource requirements for the preparation and manufacture of confectionery products
- the interrelationships between suppliers of products and internal/external customers
- identification of defects during production and of final products
- stages of production, CCPs and critical limits
- packaging procedures
- quality and continuous improvement processes
- sensory analysis techniques
- safe systems of work.

                 

# Evidence Guide

| EVIDENCE GUIDE | |
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| 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 review the preparation and manufacture of confectionery products based on product testing |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit | Critical aspects of assessment must include evidence of the ability to produce confectionery products including implementing process control procedures and data collection, diagnosing and reporting problems in manufacturing, carrying out sensory evaluation and product testing, and reviewing 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. <br><br>Assessment must occur in a real or simulated workplace where the assessee has access to: <br><br>• Production process and related equipment, manufacturers' advice and operating procedures <br>• Methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment <br>• Tests used to report relevant product/process information and recorded results |
| Method of assessment | The following assessment methods are suggested: <br><br>• Demonstration of product development <br>• Observation of candidate conducting a range of tests and procedures including sensory analysis <br>• Written and/or oral questioning to assess knowledge and understanding <br>• Completing workplace documentation |

| EVIDENCE GUIDE | |
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| | • Third party reports from experienced practitioner<br>• Case studies<br>• Field Reports |

| EVIDENCE GUIDE | |
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| 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 | |
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| 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. | |
| **Policies and procedures** | Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements. |
| **Legislation** | Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation; and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. |
| **OHS requirements** | <ul><li>legislation, regulations, Codes of practice</li><li>safety data sheets (SDSs)</li><li>enterprise and process specific occupational health and safety requirements</li></ul> |
| **Confectionery products** | These may include the range of confectionery products including chocolate and compound chocolate confectionery, sugar confectionery types, "sugar free" confectionery types, liquorice, gum based types, extruded products and panned product types. |

# Unit Sector(s)

| Unit sector | Technical |
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