



**Australian Government**

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

# **SFIPROC606C Develop and implement energy control systems in seafood processing environments**

**Release: 1**

## SFIPROC606C Develop and implement energy control systems in seafood processing environments

### Modification History

Not Applicable

### Unit Descriptor

|                        |                                                                                                                                                                                                                                                                                                                      |
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| <b>Unit descriptor</b> | This unit of competency involves monitoring of energy systems utilised in seafood processing and the processes by which improvements in energy efficiency might be identified and implemented.<br>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication. |
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### Application of the Unit

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Application of the unit</b> | All enterprise or workplace procedures and activities are carried out according to <b><i>relevant government regulations, licensing and other compliance requirements</i></b> , including <b><i>food safety and hygiene regulations and procedures</i></b> and <b><i>ecologically sustainable development (ESD) principles</i></b> .<br>Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. |
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### Licensing/Regulatory Information

Refer to Unit Descriptor

### Pre-Requisites

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| <b>Prerequisite units</b> |  |  |
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## Employability Skills Information

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| <b>Employability skills</b> | This unit contains employability skills. |
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## Elements and Performance Criteria Pre-Content

|                                                                   |                                                                                                                                                                                                                                                                                                                  |
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| 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. |
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## Elements and Performance Criteria

| ELEMENT                                                                                      | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| 1. Develop <b><i>criteria for control of energy</i></b> to be used in the production process | <p>1.1. Information regarding current energy usage is compiled and analysed to identify opportunities to achieve savings.</p> <p>1.2. Suggestions for the control of energy usage are canvassed and collated.</p> <p>1.3. <b><i>Potential benefits</i></b> to the enterprise are assessed and data collated in an agreed format.</p> <p>1.4. Energy control criteria are developed to achieve energy efficiency and communicated to affected personnel.</p> |
| 2. <b><i>Implement and maintain energy control systems</i></b>                               | <p>2.1. Energy control system is implemented to achieve maximum energy savings.</p> <p>2.2. Data relating to energy usage is gathered and collated in a format which enables interpretation.</p> <p>2.3. Energy system is monitored to ensure continuing effectiveness of control systems.</p>                                                                                                                                                              |

## Required Skills and Knowledge

| REQUIRED SKILLS AND KNOWLEDGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| This section describes the skills and knowledge required for this unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>Required skills</b></p> <ul style="list-style-type: none"> <li>• applying cost-benefit analysis</li> <li>• collecting and analysing data and reporting on energy efficiency</li> <li>• communicating with work teams and managers</li> <li>• monitoring, recording and reporting on use of energy in the production process</li> <li>• prioritising tasks and giving appropriate attention to detail</li> <li>• solving problems.</li> </ul> <p><b>Literacy skills used for:</b></p> <ul style="list-style-type: none"> <li>• compiling reports</li> <li>• interpreting complex technical information</li> <li>• preparing detailed procedures, specifications and/or contracts</li> <li>• preparing detailed technical reports</li> <li>• recording data.</li> </ul> |

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| <b>REQUIRED SKILLS AND KNOWLEDGE</b>                                                                                                                                                                                                                                            |
| <b>Numeracy skills used for:</b> <ul style="list-style-type: none"><li>• calculating energy usage</li><li>• estimating costs</li><li>• formulae for design criteria (e.g. flows, temperature and pressure)</li><li>• reading and interpreting data recording devices.</li></ul> |
| <b>Required knowledge</b>                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"><li>• cost-benefit analysis principles</li><li>• energy management and control systems</li><li>• methods and principles of energy generation.</li></ul>                                                                                       |

## 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:

- perform tasks necessary to optimise the use of all forms of energy in the processing or production activities of the enterprise, and to monitor developments with a view to achieving energy efficiency.

Assessment must confirm knowledge of:

- corrective actions to maintain temperature control in energy emergency
- cost-benefit analysis methods to review alternative energy systems
- energy management and control systems development
- in-process tests to monitor energy performance
- plant, process and personal safety requirements
- preventative maintenance requirements to maximise energy performance
- set-up, start-up and operating parameters for energy generation and/or ancillary plant used in the production process
- start-up, shutdown and emergency procedures
- the generation of workplace data to identify energy use and/or requirements.

#### Context of and specific resources for assessment

Assessment may be conducted in the workplace or in a simulated work environment.

Resources may include:

- access to enterprise expertise in production, processing, engineering and cost control
- data recording devices
- enterprise standard operating procedures (SOPs), work instructions and relevant specifications
- equipment and facilities suitable for the monitoring

| <b>EVIDENCE GUIDE</b> |                                                                                                                                                                                                                                                                                                                      |
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|                       | <p>or measurement of energy usage</p> <ul style="list-style-type: none"><li>• equipment set-up, start-up and shutdown procedures</li><li>• food safety, HACCP and other standards relevant to temperature control and/or process requirements</li><li>• historical data relating to enterprise energy use.</li></ul> |

| <b>EVIDENCE GUIDE</b>                      |                                                                                                                                                                                                             |
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| <b>Method of assessment</b>                | <p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> <li>• project (work or scenario based)</li> <li>• workplace data</li> <li>• written or oral questions.</li> </ul> |
| <b>Guidance information for assessment</b> | <p>This unit may be assessed holistically with other units within a qualification.</p>                                                                                                                      |

## Range Statement

| <b>RANGE STATEMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <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> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b><i>Relevant government regulations, licensing and other compliance requirements</i></b> may include:</p>                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• ESD principles, environmental hazard identification, risk assessment and control</li> <li>• food safety, Hazard Analysis Critical Control Point (HACCP), hygiene and temperature control along chain of custody</li> <li>• imports quarantine and inspection, and importing approved arrangements for Australian Quarantine Inspection Service (AQIS), Australian Customs Service (ACS) and Biosecurity Australia (BA)</li> <li>• land, buildings and vehicles: <ul style="list-style-type: none"> <li>• buildings and structures design and appearance, constructions and additions</li> <li>• use of utilities, including water, natural gas, electricity and sewage</li> <li>• land lease, tenure or ownership and use</li> </ul> </li> <li>• business or workplace operations, policies and practices: <ul style="list-style-type: none"> <li>• commercial law, including fair trading and trade practices</li> <li>• consumer law</li> <li>• corporate law, including registration,</li> </ul> </li> </ul> |

## RANGE STATEMENT

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|  | <p>licensing and financial reporting</p> <ul style="list-style-type: none"> <li>• disability policies and practices</li> <li>• equal opportunity, anti-discrimination and sexual harassment</li> <li>• industrial relations and awards, individual employment contracts and share of catch agreements</li> <li>• jurisdictional variations</li> <li>• superannuation</li> <li>• taxation</li> <li>• trade practices</li> <li>• warnings and dismissals</li> <li>• worker's compensation</li> <li>• occupational health and safety (OHS) hazard identification, risk assessment and control</li> <li>• product quality assurance: <ul style="list-style-type: none"> <li>• correct naming and labelling (e.g. country of origin, Australian Fish Names Standard and eco-labelling)</li> <li>• correct quantities, sizes and other customer requirements</li> <li>• third-party certification (e.g. Australian Grown and ISO 14001:2004 Environmental management systems).</li> </ul> </li> </ul> |
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## RANGE STATEMENT

***Food safety and hygiene regulations and procedures*** 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, 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.

***ESD principles*** may include:

- increasing use of renewable, recyclable and recoverable resources
- managing environmental hazard identification, risk assessment and control
- managing, controlling and treating effluents, chemical residues, contaminants, wastes and pollution
- minimising noise, dust, light or odour emissions
- planning environmental and resource efficiency improvements
- reducing emissions of greenhouse gases
- reducing use of non-renewable resources
- reducing energy use and introducing alternative energy sources.

| <b>RANGE STATEMENT</b>                                                     |                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><i>Criteria for control of energy</i></b> may include consideration of: | <ul style="list-style-type: none"> <li>• cooling or freezing</li> <li>• electricity</li> <li>• emergency procedures</li> <li>• gas</li> <li>• heat or steam generation</li> <li>• set-up, start-up and shutdown procedures to maximise energy efficiency</li> <li>• solar</li> <li>• water.</li> </ul> |
| <b><i>Potential benefits</i></b> may include:                              | <ul style="list-style-type: none"> <li>• decreased costs</li> <li>• effective utilisation of equipment</li> <li>• equipment efficiency</li> <li>• increased performance:</li> <li>• performance levels of personnel.</li> </ul>                                                                        |
| <b><i>Implement and maintain energy control systems</i></b> may include:   | <ul style="list-style-type: none"> <li>• manuals</li> <li>• operating procedures</li> <li>• policies and procedures</li> <li>• quality standards</li> <li>• work instructions.</li> </ul>                                                                                                              |

## Unit Sector(s)

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| <b>Unit sector</b> | Seafood processing |
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## Co-requisite units

| <b>Co-requisite units</b> |  |  |
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|                           |  |  |

## Competency field

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| Competency field |  |
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