



**Australian Government**

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

# **MSS403084A Improve changeovers**

**Release: 1**

## **MSS403084A Improve changeovers**

### **Modification History**

New unit

### **Unit Descriptor**

This unit of competency covers the basic skills and knowledge required to improve changeovers.

### **Application of the Unit**

This unit applies to an individual who is required to work on more than one product and to change between them as part of their work role. The product may be a physical or non-physical product and changeover may require a change of equipment or parts or it may require changing files, computer software, templates or some other changeover. It applies to the person's own job at whatever organisational level they are employed and also applies to people who are assisting (or could assist) others to make a changeover.

The person will typically be working closely with others, as part of a formal team, an ad hoc team or otherwise, They will liaise and communicate with these others, as required.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

## Employability Skills Information

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

1	Record changeover process	1.1	Identify customer requirements and other specifications for required product or service
		1.2	Identify last off good product or service and check against customer requirements and specifications
		1.3	Identify likely start and required finish situations for last off or first off good product or service
		1.4	Process map required steps in changeover
		1.5	Identify any optional or alternative process steps
		1.6	Record times and other relevant data on map
		1.7	Confirm changeover map with relevant people
2	Identify waste in changeover map	2.1	Identify all waste in changeover map
		2.2	Identify internal and external changeover activities
		2.3	Propose changes to reduce changeover time
3	Make quicker changeover	3.1	Obtain any required authorisations and resources for proposed changes
		3.2	Check there are no adverse quality, health, safety and

environment (HSE) implications

3.3 Try out proposed changeover

3.4 Standardise improvement, as appropriate

## Required Skills and Knowledge

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

### Required skills

Required skills include:

- planning own work
- communicating with people relevant to job
- following standard procedures and practices
- developing and using process maps
- timing process steps

### Required knowledge

Required knowledge includes:

- equipment and processes used in area subject to changeover
- drawing and interpretation of process maps
- quick changeover principles
- relevant procedures and quality requirements
- purpose of the changeover and of making quick changeovers
- authorisation processes for change

## 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.

<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>A person who demonstrates competency in this unit must be able to provide evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• follow process maps</li> <li>• categorise changeover steps as either internal or external</li> <li>• perform changeovers in accordance with procedures</li> <li>• recommend improvements to the changeover procedure.</li> </ul>
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<p><b>Context of and specific resources for assessment</b></p>	<p>Assessment of performance must be undertaken in a workplace using or implementing one or more competitive systems and practices.</p> <p>Access may be required to:</p> <ul style="list-style-type: none"> <li>• workplace procedures and plans relevant to work area</li> <li>• specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the assessee</li> <li>• documentation and information in relation to production, waste, overheads and hazard control/management</li> <li>• reports from supervisors/managers</li> <li>• case studies and scenarios to assess responses to contingencies.</li> </ul>
<p><b>Method of assessment</b></p>	<p>A holistic approach should be taken to the assessment.</p> <p>Competence in this unit may be assessed by using a combination of the following to generate evidence:</p> <ul style="list-style-type: none"> <li>• demonstration in the workplace</li> <li>• workplace projects</li> <li>• suitable simulation</li> <li>• case studies/scenarios (particularly for assessment of contingencies, improvement scenarios, and so on)</li> <li>• targeted questioning</li> <li>• reports from supervisors, peers and colleagues (third-party reports)</li> <li>• portfolio of evidence.</li> </ul> <p>In all cases it is expected that practical assessment will be combined with targeted questioning to assess underpinning knowledge.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p>
<p><b>Guidance information for assessment</b></p>	<p>Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the candidate and the work being performed.</p>

## 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.

<p><b>Competitive systems and practices</b></p>	<p>Competitive systems and practices may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• lean operations</li> <li>• agile operations</li> <li>• preventative and predictive maintenance approaches</li> <li>• monitoring and data gathering systems, such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Materials Resource Planning (MRP) and proprietary systems</li> <li>• statistical process control systems, including six sigma and three sigma</li> <li>• Just in Time (JIT), kanban and other pull-related operations control systems</li> <li>• supply, value, and demand chain monitoring and analysis</li> <li>• 5S</li> <li>• continuous improvement (kaizen)</li> <li>• breakthrough improvement (kaizen blitz)</li> <li>• cause/effect diagrams</li> <li>• overall equipment effectiveness (OEE)</li> <li>• takt time</li> <li>• process mapping</li> <li>• problem solving</li> <li>• run charts</li> <li>• standard procedures</li> <li>• current reality tree</li> </ul> <p>Competitive systems and practices should be interpreted so as to take into account:</p> <ul style="list-style-type: none"> <li>• the stage of implementation of competitive systems and practices</li> <li>• the size of the enterprise</li> <li>• the work organisation, culture, regulatory environment and the industry sector</li> </ul>
<p><b>Changeover</b></p>	<p>A changeover occurs when a person is required to work on more than one product and to change between them as</p>

	<p>part of the work role. The product may be a physical or non-physical product and changeover may require some or all of the following:</p> <ul style="list-style-type: none"> <li>• a change of equipment or parts</li> <li>• changing (computer or paper) files</li> <li>• changing computer software or templates</li> <li>• other changes</li> </ul>
<b>Waste</b>	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is usually defined by the 'seven wastes' which may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• overproduction</li> <li>• waiting</li> <li>• transporting</li> <li>• inappropriate processing</li> <li>• unnecessary inventory</li> <li>• excess motion</li> <li>• defects</li> <li>• underutilised employees</li> <li>• having no-one follow</li> </ul>
<b>Internal and external changeover activities</b>	<p>Internal changeover activities are defined as:</p> <ul style="list-style-type: none"> <li>• work that can be done only when the machine or process is not actively engaged in production (i.e. only while the changeover is occurring)</li> </ul> <p>External changeover activities are defined as:</p> <ul style="list-style-type: none"> <li>• work that can be done concurrently with the machine or process performing production/work duties (i.e. either before or after the changeover proper)</li> </ul>

## Unit Sector(s)

Unit sector

Competitive systems and practices

## Custom Content Section

Not applicable.