



Australian Government

MSS402020 Apply quick changeover procedures

Release: 1

MSS402020 Apply quick changeover procedures

Modification History

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

Application

This unit of competency covers the skills and knowledge required to apply quick changeover procedures in an organisation implementing competitive systems and practices.

This unit applies to individuals in an organisation which is implementing competitive systems and practices and is pursuing quick changeover as one of its competitive operations tools. The unit can apply to quick changeovers of equipment, processes, batches or product type. It requires the application of skills associated with applying quick changeover procedures, including the planning and organising of own work, identifying problems and making suggestions for improvement of procedures.

Particular technical skills may also be required in some operations sectors and for some jobs. These skills should be gained from the Training Package relevant to the individual's industry and occupation.

This unit may not be applicable to a totally continuous operation producing only the one product, or simultaneous range of products. The unit is also not applicable to a maintenance/PVI shutdown as experienced by continuous process manufacturers.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Competitive systems and practices

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|--------------------|-----|---|
| 1 | Prepare for | 1.1 | Determine when changeover will be required. |
|---|--------------------|-----|---|

	changeover	1.2	Review plans and instructions for quick changeover.
		1.3	Identify role of others in quick changeover.
		1.4	Obtain all required tools/parts/materials for changeover.
		1.5	Organise process and tools/parts/materials ready for changeover.
2	Make quick changeover	2.1	Plan changeover according to quick changeover principles.
		2.2	Liaise and work with relevant people in quick changeover.
		2.3	Complete changeover according to procedures.
		2.4	Check output meets specification.
		2.5	Debrief with all relevant stakeholders.
		2.6	Note any steps which cause a problem.
		2.7	Recommend changes to problematic steps.
3	Improve work health and safety (WHS)	3.1	Identify hazards to self or others in all steps/actions.
		3.2	Determine risks from each hazard.
		3.3	Identify actions which may be performed in a more ergonomic manner.
		3.4	Recommend changes to improve WHS.

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- | | |
|--|--|
| Competitive systems and practices include one or more of: | <ul style="list-style-type: none"> • lean operations • agile operations • preventative and predictive maintenance approaches • 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 • statistical process control systems, including six sigma and three sigma • Just in Time (JIT), kanban and other pull-related operations control systems • supply, value, and demand chain monitoring and analysis • 5S • continuous improvement (kaizen) • breakthrough improvement (kaizen blitz) • cause/effect diagrams • overall equipment effectiveness (OEE) • takt time • process mapping • problem solving • run charts • standard procedures • current reality tree. |
| Changeover may include one or more of: | <ul style="list-style-type: none"> • an exchange of equipment (often dies or tools (traditional)) • a change between products/batches or between campaigns or processes. It may be any quantum change to produce a different product or undertake a different process. |
| Set-up can be divided into two types: | <ul style="list-style-type: none"> • internal set-up (requires work to stop, work that can be done only when the machine or process is not actively engaged in production, computers etc. need to be reset and restarted) • external set-up (work can continue during the changeover, work can be done concurrently with the machine or process performing production duties). |

Set-up time includes:

- the work time required to change over a machine or process from one item or operation to the next item or operation.

Procedures (written, verbal, visual, computer based, etc.) include one or more of:

- work instructions
- standard operating procedures (SOPs)
- safe work method statements
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS402020 Apply quick changeover procedures

Modification History

Release 1. Supersedes and is equivalent to MSS402020A Apply quick changeover procedures

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability, for three (3) or more quick changeovers, to:

- identify the scope and equipment to be used in a quick changeover implemented in their own workplace
- plan and complete changeover
- identify problems in quick changeovers
- contribute suggestions for improvement.

Knowledge Evidence

- Must provide evidence that demonstrates knowledge relevant to their job role sufficient to fulfil their job role under routine only supervision and to solve routine problems, including knowledge of:
- principles of quick changeover, including:
 - setting of target time for changeover
 - conversion of internal set-up time to external set-up time, where appropriate
 - simplification of changeover steps
 - monitoring and continuous improvement of changeovers
- purpose and requirements of changeover
- minimisation of changeover waste (e.g. scrap and energy)
- quality requirements for products and purposes
- relevant operational procedures
- health, safety and environment (HSE) principles relevant to own job.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace

- will typically include a supervisor/third-party report focussing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
- must include actual quick changeovers, the use of appropriate tools, equipment and safety gear requiring demonstration of preparation, operation, completion and responding to problems.
- Assessment should occur in operational workplace situations. Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>