



Australian Government

MSS405020 Develop quick changeover procedures

Release: 1

MSS405020 Develop quick changeover procedures

Modification History

Release 1. Supersedes and is equivalent to MSS405020A Develop quick changeover procedures

Application

This unit of competency covers the skills and knowledge required to develop/improve changeovers for equipment, processes or operations. It includes critically analysing existing changeovers, applying quick changeover principles, and developing improved changeover procedures.

This unit applies to managers, technical specialists or similar in an organisation that has adopted or is adopting a quick changeover approach to its changeovers.

This unit requires the application of skills associated with communication, problem solving, initiative, enterprise, planning and organising in order to analyse and determine changeover procedures. This unit also requires aspects of self-management and learning to ensure feedback and new learning is integrated into the development of procedures.

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 Analyse changeover

- 1.1 Critically observe changeover process.
- 1.2 Identify steps in changeover.
- 1.3 Identify start situation and required finish situation for changeover.

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| 2 | Apply quick changeover principles | 2.1 Identify changes to the start situation and required finish situation which are possible. |
| | | 2.2 Identify internal and external changeover activities. |
| | | 2.3 Identify activities which could be improved/eliminated. |
| | | 2.4 Eliminate/reduce adjustments required after changeover. |
| | | 2.5 Develop improved changeover process and recommendations for implementation procedure. |
| | | 2.6 Liaise with relevant people to validate recommendations. |
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| 3 | Assess and minimise risks in changeover | 3.1 Analyse hazards and risks from all steps in changeover. |
| | | 3.2 Apply ergonomic principles and hierarchy of control to each equipment and manual hazard. |
| | | 3.3 Assess any regulatory risk in changeover. |
| | | 3.4 Minimise hazards during changeover ensuring final risk profile is acceptable. |
| | | |
| 4 | Implement improved changeover | 4.1 Acquire any required resources and approvals. |
| | | 4.2 Organise trials of improved changeover. |
| | | 4.3 Monitor trial. |
| | | 4.4 Make adjustments to changeover process. |
| | | 4.5 Implement improved changeover process. |

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:

- lean operations
- agile operations
- preventative and predictive maintenance approaches
- 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 refers to one or more of:

- equipment exchanges, such as an exchange of dies/tools (traditional)
- change between batches
- change between campaigns (process manufacturing)
- quantum equipment/process change to produce a different product.

Activities which should be improved/eliminated include one or more of:

- those which take time or are unreliable in terms of outcome
- those which are difficult to do or have adverse work health and safety (WHS) implications (e.g. repetitive strain injury, back injury and finger injuries).

Hazards and risks are related to one or more of:

- WHS
- regulatory compliance
- environment

- commercial and contractual obligations.

Procedures (written, verbal, visual, computer based, etc.) include one or any combination 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 MSS405020A Develop 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 MSS405020 Develop quick changeover procedures

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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 one (1) or more quick changeover procedures, to:

- observe and analyse steps in an existing changeover
- manage risks in adjusting changeover procedures
- develop changeover adjustments that deliver the greatest overall benefit
- supervise changeover procedure trials.

Knowledge Evidence

Must provide evidence that demonstrates sufficient knowledge to interact with relevant personnel and be able to develop/improve quick changeover procedures, including knowledge of:

- principles of quick changeover
- equipment and operating environment of activities subject to quick changeover
- regulatory and commercial obligations and risk environment for operations subject to quick changeover analysis
- safe movement and other relevant work health and safety (WHS) principles
- relevant procedures
- purposes/requirements of changeover
- sourcing of resources
- trialling procedures.

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 is best done from a report and/or folio of evidence drawn from:
 - a single project which provides sufficient evidence of the requirements of all the elements and performance criteria
 - multiple smaller projects which together provide sufficient evidence of the requirements of all the elements and performance criteria.

- A third-party report, or similar, may be needed to testify to the work done by the individual, particularly when the project has been done as part of a project team.
- Assessment should use the actual developing/improving of changeover procedures in an operational workplace.
- Knowledge evidence may be collected concurrently with performance evidence 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.

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