



Australian Government

MSS404050 Undertake process capability improvements

Release: 1

MSS404050 Undertake process capability improvements

Modification History

Release 1. Supersedes and is equivalent to MSS404050A Undertake process capability improvements

Application

This unit of competency covers the skills and knowledge required to make process capability improvements, including analysing data from the process, developing improvements to eliminate variation due to assignable causes, and then implementing actions.

This unit applies to a person who reviews a range of process capability data and information, makes/arranges for changes to be made to procedures, equipment or process and then recalculates the process capability and monitors resulting improvement actions. The person will typically be a technical expert, team leader or be in a role where they have sufficient technical understanding of processes in their own work and that of others to be able to suggest and justify process capability improvements.

Process capability may have been determined using either a six sigma or three sigma processes. This unit applies to the application of statistical methods and the determination of capability based on those methods.

This unit primarily requires the application of skills associated with communication, information gathering and analysis. Initiative, enterprise and problem solving are also required to identify opportunities to improve process capacity. This unit also requires aspects of self-management and learning to validate own analysis.

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.

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|---|-----------------------------------|-----|--|
| 1 | Obtain required data | 1.1 | Identify process for study. |
| | | 1.2 | Obtain/organise process to obtain required data/information. |
| | | | |
| 2 | Analyse information | 2.1 | Analyse data and determine assignable causes. |
| | | 2.2 | Develop possible improvements to eliminate assignable causes. |
| | | 2.3 | Incorporate own experience and learning into proposed process improvement proposals. |
| | | 2.4 | Develop process improvement proposals. |
| | | | |
| 3 | Improve process capability | 3.1 | Obtain required authorisations to implement improvements. |
| | | 3.2 | Liaise with relevant people to implement improvements. |
| | | 3.3 | Obtain/organise required data for improved process. |
| | | 3.4 | Recalculate process capability. |
| | | 3.5 | Implement revised data collection/processing and new capability information. |
| | | 3.6 | Monitor improvement actions and make adjustments, as necessary. |

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.

Variation includes all of:

- random variation (no assignable cause)
- non-random variation (which has an assignable cause).

Improved process capability may result from one or more of:

- continuous improvement with the process capability being recalculated periodically
- an improvement project with the process capability recalculated as part of that project.

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

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Links

Companion Volume implementation guides are found in VETNet -

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