



Australian Government

MSS405054 Determine and improve process capability

Release: 1

MSS405054 Determine and improve process capability

Modification History

Release 1. Unit code changed. Application changed. Performance criteria changed. Range of conditions removed. Assessment requirements changed. Supersedes and is equivalent to MSS405050 Determine and improve process capability.

Application

This unit describes the skills and knowledge required to determine the actual (as distinct from design) capability of a process and then to analyse that process to remove assignable causes and reduce random causes. This unit applies to an individual (who may be a production manager, plant/process engineer, technical specialist or similar) who is responsible for developing plans to stabilise and then improve process capability and, following agreement, the implementation of the plans to improve process capability. The organisation may use either a six sigma or three sigma process.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

MSS404054 Apply statistics to operational processes

Competency Field

Competitive systems and practices

Unit Sector

Elements and Performance Criteria

Elements	Performance Criteria	
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.	
1. Obtain data for process capability study	1.1	Identify the process requiring capability analysis, including procedures
	1.2	Identify customer specifications for product or service
	1.3	Obtain process capability data
2. Analyse data	2.1	Read and interpret data to identify assignable causes of variation in liaison with relevant personnel

	2.2	Develop solutions to eliminate variation due to assignable causes in liaison with relevant personnel
	2.3	Analyse random variations for possible causes in liaison with relevant personnel
	2.4	Confirm causes of random variation
	2.5	Develop solutions to reduce random variations in liaison with relevant personnel
3. Improve process capability	3.1	Develop written plans to implement solutions
	3.2	Liaise with relevant personnel to implement solutions
	3.3	Gain necessary approvals to implement plans
	3.4	Monitor implementation and make adjustments
	3.5	Determine new or revised process capability
	3.6	Implement revised process capability regime

Foundation Skills

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

Range of Conditions

Unit Mapping Information

Supersedes and is equivalent to MSS405050 Determine and improve process capability.

Links

The MSS Sustainability Companion Volume Implementation Guides are available from VETNet: -

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

Assessment Requirements for MSS405054 Determine and improve process capability

Modification History

Release 1. Unit code changed. Application changed. Performance criteria changed. Range of conditions removed. Assessment requirements changed. Supersedes and is equivalent to MSS405050 Determine and improve process capability.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- determined and improved the capability of at least 1 process.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- statistical methods of processing and describing data
- data collection methods
- data processing techniques required to establish variability and normal distribution
- how to calculate three sigma or six sigma process capability
- random and non-random results and processes for recognition of assignable causes
- causes of different types of non-random results
- causes of random variation
- process to translate the data into variations in the process and determine methods of controlling them.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

The MSS Sustainability Companion Volume Implementation Guides are available from VETNet: -

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