



Australian Government

MSS404054 Apply statistics to operational processes

Release: 1

MSS404054 Apply statistics to operational processes

Modification History

Release 1. Unit code changed. Application changed. Performance criteria changed. Range of conditions removed. Assessment requirements changed. Supersedes and is equivalent to MSS404052 Apply statistics to operational processes.

Application

This unit describes the skills and knowledge required to gather and analyse process data to support the control of processes and operations. It includes interpretation of sampling procedures, frequency distributions, random and non- random variations in data/control charts; use of control limits to determine whether monitored processes are in control; and communicating this information to others.

This unit applies to a person working in an organisation applying statistical process control on processes or operations. The statistical process control will usually be used to monitor the processes or operations and determine when action needs to be taken. The appropriate action will then be taken in accordance with standard procedures.

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

Nil.

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. Collect process data	1.1	Read and interpret sampling scheme
	1.2	Obtain measurements in accordance with standard sampling procedures
	1.3	Handle data in accordance with procedures

2. Interpret data	2.1	Plot data on control chart
	2.2	Identify random and non-random patterns of results
	2.3	Identify results outside the control limits
	2.4	Identify situations requiring action
	2.5	Take action in accordance with procedures
	2.6	Calculate cost of non-conformance
3. Calculate control limits	3.1	Consult stakeholders to determine appropriate limits
	3.2	Calculate and revise control limits
	3.3	Plot limits on control chart and complete all records in accordance with procedures
	3.4	Explain impact of limit to stakeholders

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 MSS404052 Apply statistics to operational processes.

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 MSS404054 Apply statistics to operational processes

Modification History

Release 1. Unit code changed. Application changed. Performance criteria changed. Range of conditions removed. Assessment requirements changed. Supersedes and is equivalent to MSS404052 Apply statistics to operational processes.

Performance Evidence

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

- gathered, analysed and interpreted process data to monitor and control at least 2 operational processes.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- purpose of sampling and measurement
- sampling methods to be used
- methods of calculating mean and standard deviation and their purpose in statistical control
- concept of limits, including 1, 2, 3 and 6 sigma limits
- types of control charts and their applications to different types of process and product and for different purposes
- process causes of variation and typical cause types of non-random variation
- non-process causes of variation
- stable and unstable processes
- causes of stability and instability in the process
- calculation of control limits and process capability and the applications of different control limits
- standard distribution curve and confidence limits.

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>