Australian Government

Department of Education, Employment and Workplace Relations

MEM30024A Participate in quality assurance techniques

Release: 1

MEM30024A Participate in quality assurance techniques

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers participating in quality improvement programs at a basic level.

Application of the Unit

Application of the unit	This unit applies to all fields of engineering. Skills are applied to working in teams and work is carried out under supervision. **Band**: **0** **Unit Weight**: **0**

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM15001B	Perform basic statistical quality control

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Interpret and apply quality standards and procedures	1.1. Quality standards and procedures are interpreted and applied to individual and teamwork in accordance with standard operating procedures.
2. Monitor and report on quality	2.1. Quality of all received, in-work and finished materials and products is monitored as required in accordance with standard operating procedures. 2.2. Designated process improvement tools are used either individually or in a team to identify and solve design, development and production quality problems. 2.3. Designated analytical tools are used to evaluate principal causes of process variation in consultation with the team or other subject experts. 2.4. Further action to improve quality is recommended, where required, using standard operating procedures.
3. Assist in implementing approved improvement strategy or strategies	3.1. Key indicators and performance measures are established and agreed in consultation with the team or other subject experts. 3.2. Process, product output is measured against key indicators in consultation with the team or other subject experts. 3.3. Steps are taken to lock in improvements in accordance with standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Look for evidence that confirms skills in: • undertaking problem solving • undertaking basic arithmetic calculations • interpreting known data • using standard texts and references • undertaking simple report writing

REQUIRED SKILLS AND KNOWLEDGE
• reading and interpreting engineering specifications
Required knowledge

Look for evidence that confirms knowledge of:
• the importance of quality
• the key principles of quality improvement programs
• the influence of variation
• use and application of Australian standards/ ISO 9000 etc.
• quality policy
• quality manuals
• quality procedures
• quality definitions
• purpose of quality audits
• simple sampling techniques and possible sources of sampling error and bias
• simple statistical tools
• problem solving techniques including:
  • process flow charts, interpretation and construction of simple case
  • cause and effect diagrams, fault trees etc.
  • root cause analysis
  • Pareto diagrams

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to participate in quality assurance techniques - basic. Competency in this unit cannot be claimed until all prerequisites have been satisfied.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate. This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with participating in quality assurance techniques - basic, or other units requiring the exercise of the skills and knowledge covered by this unit.
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

EVIDENCE GUIDE	
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Quality standards and procedures	Includes quality programs such as TQC, six sigma etc., quality policy, quality manuals, ISO 9000 and associated quality standards
Process improvement tools	Includes process flow charts, cause and effect diagrams, brainstorming sessions, Pareto diagrams, check sheets, run chart, scatter diagrams etc.
Analytical tools	Can include statistical analysis, critical incident analysis, root cause analysis etc.

Unit Sector(s)

Unit sector	

Co-requisite units

Co-requisite units		

Co-requisite units		

Competency field

Competency field	Engineering technician