



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEM30017A Use basic preventative maintenance techniques and tools**

**Release: 1**

## MEM30017A Use basic preventative maintenance techniques and tools

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers supporting the implementation of a preventative maintenance strategy for a manufacturing enterprise.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit may apply to a range of predictive or proactive maintenance strategies within a manufacturing environment. The unit covers skills to enable participation across the most common preventative maintenance strategies and introduces the most common techniques and statistical tools. All work is undertaken under supervision.</p> <p><b>Band: 0</b></p> <p><b>Unit Weight: 0</b></p>
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## 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.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Interpret enterprise maintenance strategy	1.1. Objectives and details of enterprise maintenance strategy are obtained in accordance with enterprise procedures. 1.2. Major techniques and tools for monitoring are confirmed in consultation with key stakeholders and supervisor.
2. Use preventative maintenance techniques and tools	2.1. Techniques and tools are selected and confirmed in consultation with key stakeholders and supervisor in accordance with enterprise requirements. 2.2. Key information and performance indicators required are identified in consultation with key stakeholders and supervisor. 2.3. Data collection is undertaken as required.
3. Interpret results	3.1. Actual information/performance indicators are compared with target levels set by supervisors and/or equipment manufacturers. 3.2. Required adjustments are developed in consultation with key stakeholders and supervisor.

## 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:

- conducting root cause analysis
- identifying mean time between failures
- basic analysis of the effects of failures
- conducting condition monitoring
- analysing
- assessing
- communicating
- problem solving
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other

**REQUIRED SKILLS AND KNOWLEDGE**

- applicable reference documents
- planning and sequencing operations
- checking for conformance to specifications
- checking and clarifying task-related information

**Required knowledge**

Look for evidence that confirms knowledge of:

- characteristics and strengths of different types of strategies
- characteristics and strengths of different types of techniques and tools
- principles of process equipment and how to improve its reliability
- resources required and how to obtain them
- hazard and control measures associated with using basic preventative maintenance techniques and tools, including housekeeping
- use and application of personal protective equipment
- safe work practices and procedures

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>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.</p>	
<b>Overview of assessment</b>	<p>A person who demonstrates competency in this unit must be able to use basic preventative maintenance techniques and tools.</p>
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>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.</p>
<b>Context of and specific resources for assessment</b>	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using basic preventative maintenance techniques and tools, or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<b>Method of assessment</b>	<p>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 should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required and must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
<b>Guidance information for</b>	

**EVIDENCE GUIDE****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.

**Strategies**

May include total productive/preventive maintenance, reliability centred maintenance

**Techniques and tools**

Includes root cause analysis, mean time between failures, failure modes effects analysis, condition monitoring not involving application of trade skills

**Unit Sector(s)****Unit sector****Co-requisite units****Co-requisite units**

## Competency field

Competency field	Engineering technician
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