



Australian Government

Department of Education, Employment and Workplace Relations

MSACMT281A Contribute to the application of a proactive maintenance strategy

Revision Number: 1

MSACMT281A Contribute to the application of a proactive maintenance strategy

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills required to make a positive contribution to proactive maintenance strategies which include things like plant uptime and Overall Equipment Efficiency (OEE).
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation is following a predictive, preventative or reliability centred maintenance strategy and this requires commitment from all employees. The employee should 'own' their equipment/plant and take an active part in the implementation of the strategy within the scope of their authority.</p> <p>This unit requires the application of skills associated with accessing and maintaining equipment/plant documentation, It also requires problem solving and initiative and enterprise to continually monitor and maintain operational performance of equipment/plant used in work role.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	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. Maintain equipment/ plant	<ul style="list-style-type: none">1.1. Keep equipment/plant within area of responsibility clean1.2. Ensure equipment/plant is serviced and adjusted as required in accordance with <i>procedures</i> and own level of responsibility1.3. Access manufacturer manuals/specifications where required to expand knowledge on the maintenance of equipment/plant1.4. Access and update documentation on equipment/plant operation and maintenance as appropriate to workplace procedures
2. Monitor operation of equipment/plant	<ul style="list-style-type: none">2.1. Regularly check key conditions of the equipment/plant as defined in the procedures2.2. Regularly check equipment/plant Overall Equipment Efficiency (OEE)2.3. Note any deviation from conditions specified in procedures2.4. Identify any previous occurrences of this deviation
3. Identify deviations and patterns	<ul style="list-style-type: none">3.1. Identify any previous occurrences of a deviation3.2. Identify any related deviations which have occurred3.3. Identify any unusual occurrence which may be related to a deviation
4. Take action appropriate to competency and authority on deviation	<ul style="list-style-type: none">4.1. Liaise with relevant people regarding the deviation and the solution4.2. Implement solution/assist with the implementation of the solution as appropriate

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- mathematical literacy
- analysis
- problem solving
- communication

Required knowledge

- normal behaviour of the equipment/plant
- indicators of abnormal performance
- principles of operation sufficient to recognise problems and propose solutions
- appropriate cleaning and adjusting for the equipment/plant/area as required by procedures

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, the range statement and the assessment guidelines for this training package.

Overview of assessment requirements	The employee should 'own' their plant/equipment and take a lead role in ensuring that it is always operating in peak condition and with high and increasing OEE.
What are the specific resource requirements for this unit?	Access to a plant using a proactive maintenance strategy.
What critical aspects of evidence are required to demonstrate competency in this unit?	There should be evidence of deviations recognised and appropriate solutions implemented.
In what context should assessment occur?	Assessment needs to occur in an organisation using a predictive maintenance strategy.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be assessed concurrently with other units dealing with maintenance.</p> <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT280A Undertake root cause analysis which is one of the analysis tools, and</i> also to • <i>MSACMT481A Undertake proactive maintenance analyses, and</i> • <i>MSACMT681A Develop a proactive maintenance strategy</i> <p>which cover the intermediate and high skill levels respectively.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>

EVIDENCE GUIDE

What evidence is required for demonstration of consistent performance?

Evidence should be required from a range of activities indicating that the maintenance and monitoring elements are a routine part of the job and that the identification of patterns and taking action has occurred in a range of situations.

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.

Uptime	Uptime refers to the overall availability of the plant - it is the inverse of downtime or the unavailability of the plant. Ideal uptime is 100%.
Overall Equipment Efficiency (OEE)	<p>Overall Equipment Efficiency (OEE) is the combination of the main factors causing loss of productive capacity from equipment/plant and is:</p> $OEE = \text{availability} \times \text{performance} \times \text{quality rate}$ <p>where:</p> <ul style="list-style-type: none"> • availability takes into account losses due to breakdown, set up and adjustments • performance takes into account losses due to minor stoppages, reduced speed and idling • quality rate takes into account losses due to rejects, re-works and start up waste.
Procedures	Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form. For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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