



Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3224B Plan and monitor equipment maintenance

Release: 1

FPICOT3224B Plan and monitor equipment maintenance

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to establish a routine maintenance plan and facilitate repairs for a range of equipment used in manufacturing operations

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPICOT3224A Plan and monitor equipment maintenance

Application of the Unit

Application of the unit

The unit involves planning and monitoring equipment maintenance in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

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. Plan routine maintenance	<p>1.1. Applicable <i>occupational health and safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to planning and monitoring <i>equipment maintenance</i> are identified and followed</p> <p>1.2. Site <i>environmental protection measures</i> are adhered to in line with relevant legislation and regulations</p> <p>1.3. Servicing requirements of all site equipment are reviewed and maintenance schedules prepared</p> <p>1.4. Tools, equipment and material requirements for maintenance work are determined and organised</p> <p>1.5. <i>Maintenance procedures</i> are planned, scheduled and communicated to <i>appropriate personnel</i></p> <p>1.6. Roles and responsibilities are assigned to personnel in line with individual competence</p> <p>1.7. Mentoring and training to support the maintenance plan are provided as required to ensure procedures are correctly carried out</p> <p>1.8. Maintenance processes are <i>planned</i> in line with site procedures and environmental requirements, and modified as required in response to equipment, personnel and site condition changes</p> <p>1.9. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Monitor equipment operation	<p>2.1. Work is conducted in line with work order, and environmental and OHS requirements</p> <p>2.2. Site servicing and maintenance records are routinely checked and reviewed for completeness and abnormal activity</p> <p>2.3. Stock levels of <i>routine service items</i> and minor repair components are maintained to maximise availability and optimum operational performance of equipment</p> <p>2.4. Equipment operation is systematically monitored, operating faults are identified and appropriate <i>action is taken</i></p> <p>2.5. Abnormal operation or frequent and recurring breakdowns are identified and investigated, and maintenance is organised as required</p> <p>2.6. Situations requiring expert advice are identified and specialist assistance is sought in line with site procedures</p>

ELEMENT**PERFORMANCE CRITERIA**

	2.7. Equipment condition is routinely reviewed to ensure and maintain efficient operations
3. Facilitate equipment repair	3.1. Visual inspection and fault finding procedures are conducted in line with manufacturer recommendations 3.2. Faults, malfunctions or problems with equipment are diagnosed and reported in line with site procedures 3.3. Equipment breakdowns are assessed and repair option is selected and organised in line with site procedures 3.4. Movement of equipment to suitable repair site is organised in line with site procedures 3.5. Repair activity is monitored and modified as required in line with site procedures 3.6. Maintenance schedule is periodically reviewed and revised to maintain operational integrity 3.7. Equipment that cannot be repaired is dealt with in line with site procedures, manufacturer recommendations and environmental requirements 3.8. Maintenance records and reports are completed accurately and maintained in line with site procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to use and maintain relevant tools, equipment and materials; maximise equipment availability and minimise maintenance and repair costs
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to record and report workplace information; maintain documentation; interpret, apply and convey information in written, diagrammatic and verbal form
- Numeracy skills sufficient to measure, estimate and calculate time required to complete a task
- Problem solving skills sufficient to develop, modify and assign suitable checking

REQUIRED SKILLS AND KNOWLEDGE

and maintenance procedures; identify problems, equipment faults and breakdown causes; arrange appropriate repair options

Required knowledge

- Applicable commonwealth, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for planning and monitoring equipment maintenance
- Environmental protection requirements, including the safe disposal of waste material, the safe use and storage of chemicals, the minimisation of carbon emissions, and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for planning and monitoring equipment maintenance
- Environmental risks and hazards
- Using energy effectively and efficiently
- Problem identification and resolution strategies, including typical breakdown situations and available options for correction
- Types of tools and equipment, and procedures for their safe use and maintenance
- Range of site equipment and respective technical capabilities and limitations
- Routine maintenance requirements for range of site equipment
- Established communication channels and protocols
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

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 provide evidence that they can safely and efficiently:

- plan and monitor maintenance requirements of a range of site equipment
- facilitate repairs in line with organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to planning and monitoring equipment maintenance
- following organisational policies and procedures relevant to planning and monitoring equipment maintenance
- planning and monitoring equipment operation and establishing a routine maintenance and servicing plan
- efficiently performing or directing maintenance activities and facilitating the repair of equipment

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

EVIDENCE GUIDE

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

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.

RANGE STATEMENT

OHS requirements:

are to be in line with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices, including required actions relating to forest fire
- manual handling including shifting, lifting and carrying

Environmental requirements may include:

- legislation
- organisational policies and procedures
- workplace practices

Legislative requirements:

are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement

RANGE STATEMENT

- processes and standards
 - OHS, emergency and evacuation procedures
 - ethical standards
 - recording and reporting requirements
 - equipment use, maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
 - sawmilling equipment
- Equipment** may include:
- Equipment maintenance:**
- covers stationary and mobile equipment typically used for forest harvesting operations
 - may be performed in a forest or workshop environment
- Environmental protection measures** may include:
- ground growth
 - canopy
 - general forest lean
 - wind speed and direction
 - fallen trees
 - density of trees
 - ground slope
 - soil and water protection
 - ground hazards and obstacles
- Maintenance procedures** include:
- visual inspections
 - pre-start checks
 - shutdown checks
 - filling procedures
 - service procedures
 - changing bearings, shafts and pulleys
 - removing and replacing parts or components
- Appropriate personnel** may include:
- supervisors
 - clients
 - colleagues
 - managers
 - equipment manufacturers
 - service agents
- Plans** include:
- equipment maintenance and repair needs
 - current operational conditions
 - current work patterns
 - disposal of contaminants and waste

RANGE STATEMENT

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice

Routine service items may include:

- equipment structural features and attachments
- drive lines
- engine
- transmission
- final drives
- tracks
- wheels and tyres
- winch
- grapple systems
- electronics
- computer and cutting systems
- fuel
- engine oil
- coolant
- brake fluid
- hydraulic fluid
- transmission fluid

Action taken may include:

- stopping equipment immediately
- checking operational concerns in line with seriousness and site standards

Equipment breakdown assessment includes:

- nature
- cause
- seriousness
- likely repair requirements

Repair options

take account of:

- likely repair times
- access to service personnel
- permanency of repairs
- potential for further damage and personal injury

RANGE STATEMENT

- Dealing with** may include:
- equipment demand
 - availability of alternatives
 - recycling equipment that cannot be repaired
 - sending equipment that cannot be repaired to landfill
- Records and reports may be:**
- manual
 - a computer-based system
 - another appropriate organisational communication system

Unit Sector(s)

Not Applicable

Competency field

Competency field Common Technical