



**Australian Government**

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

# **FPISAW4201B Plan and monitor timber treatment plant operations**

**Release: 1**

## **FPISAW4201B Plan and monitor timber treatment plant operations**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit describes the outcomes required to oversee and plan timber treatment plant procedures, monitor performance, review and modify treatment operations and assess technical developments. This unit includes provision for continuous improvement and application of cost effective measures

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 FPISAW4201A Plan and monitor timber treatment plant operations

### **Application of the Unit**

#### **Application of the unit**

The unit involves planning and monitoring timber treatment plant operations 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**

#### **Prerequisite units**

## **Prerequisite units**

## **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 treatment plant procedures	<p>1.1. Applicable <b><i>Occupational Health and Safety</i></b> (OHS), <b><i>environmental</i></b>, <b><i>legislative</i></b> and <b><i>organisational requirements</i></b> relevant to planning and monitoring timber treatment plant operations are identified and followed</p> <p>1.2. Variations in timber characteristics are assessed and <b><i>moisture content</i></b> registered</p> <p>1.3. <b><i>Timber treatment</i></b> schedules are produced and applied in line with site procedures and environmental requirements</p> <p>1.4. <b><i>Water management</i></b> procedures are planned and scheduled</p> <p>1.5. <b><i>Waste minimisation</i></b> and control measures are planned and prescribed</p> <p>1.6. <b><i>Communication</i></b> with others is established and maintained in line with OHS requirements</p>
2. Monitor treatment plant performance	<p>2.1. <b><i>Charge sheets</i></b> are checked and interpreted to ensure accuracy</p> <p>2.2. <b><i>Reconciliation statements</i></b> are checked and interpreted to ensure accuracy</p> <p>2.3. <b><i>Process trends</i></b> are checked and analysed for optimum performance</p> <p>2.4. Treatment operations and output are monitored to record possible process improvements and to ensure maximum cost effectiveness</p> <p>2.5. Timber with sub-standard treatment results is <b><i>disposed of</i></b> in line with site procedures and environmental requirements</p> <p>2.6. Treatment operations, major problems and equipment faults are investigated, <b><i>recorded and reported</i></b> in line with site requirements</p>
3. Modify operations and assess technical developments	<p>3.1. Modifications are made to schedules to ensure optimum performance</p> <p>3.2. Treatment improvement modifications are documented and communicated in line with site procedures</p> <p>3.3. Developments in treatment processes and related technology are diagnosed for possible improvements</p> <p>3.4. <b><i>Technical developments</i></b> are analysed and assessed for potential incorporation into existing plant operations and procedures</p>

**ELEMENT****PERFORMANCE CRITERIA**

- 3.5. Proposed developments are authorised, trialled, documented and introduced into site operations
- 3.6. Material from unsuccessful trials is disposed of in line with site procedures and environmental requirements

## **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 assess, schedule and apply treatment plant procedures; monitor treatment plant performance and modify operations as required; analyse and assess technical developments for incorporation into existing operations and procedures; efficiently and effectively plan and monitor timber treatment plant operations
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to interpret charge sheets, reconciliation statements and process trends, and to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to demonstrate appropriate response procedures to major problems and equipment faults

#### **Required knowledge**

- Basic knowledge and understanding of applicable Commonwealth, State or Territory legislation, regulations, standards and codes of practice relevant to the full range of processes for planning and monitoring timber treatment plant operations
- Environmental protection requirements, including the safe disposal of waste material, the safe use and storage of chemicals, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for planning and monitoring timber treatment plant operations
- Environmental risks and hazards
- Using energy effectively and efficiently

**REQUIRED SKILLS AND KNOWLEDGE**

- Using material effectively and efficiently
- Timber treatment plant operation procedures
- Water management methodologies
- Waste minimisation control measures
- Treatment plant modification strategies
- Technical development diagnosis and solution methodologies
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- 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 timber treatment plant operations 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 timber treatment plant operations
- following organisational policies and procedures relevant to planning and monitoring timber treatment plant operations
- planning and monitoring of timber treatment plant operations for the enterprise
- modifying timber treatment plant operations for the enterprise
- coordinating personnel to follow planning, communications and scheduling for timber treatment plant operations

### 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 processes

## RANGE STATEMENT

	<p>and standards</p> <ul style="list-style-type: none"> <li>• OHS, emergency and evacuation procedures</li> <li>• ethical standards</li> <li>• recording and reporting requirements</li> <li>• equipment use and maintenance and storage requirements</li> <li>• environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)</li> </ul>
<b>Moisture content</b>	is the amount of moisture maintained in timber or timber products after kiln drying to avoid cracking and deforming
<b>Timber treatment</b>	<ul style="list-style-type: none"> <li>• is the process of impregnating preservative solution filled with chemicals into the timber to provide it with a durable resistance to weather and insect attack</li> </ul> <p>and may include:</p> <ul style="list-style-type: none"> <li>• full cell</li> <li>• modified cell</li> <li>• empty cell</li> <li>• double vacuum</li> <li>• dip diffusion</li> <li>• vat and sprays</li> <li>• other processes developed by the enterprise</li> </ul>
<b>Water management</b> may include:	<ul style="list-style-type: none"> <li>• stormwater</li> <li>• contaminated water</li> <li>• bore water</li> <li>• recycled dam water</li> <li>• town mains water</li> </ul>
<b>Waste minimisation</b> may include:	<ul style="list-style-type: none"> <li>• measures to control chemical waste</li> <li>• wood residues</li> <li>• packaging residues</li> <li>• debris</li> <li>• soil</li> <li>• other foreign matter</li> </ul>
<b>Communication</b> may include:	<ul style="list-style-type: none"> <li>• verbal and non-verbal language</li> <li>• constructive feedback</li> <li>• active listening</li> <li>• questioning to clarify and confirm understanding</li> </ul>

## RANGE STATEMENT

- use of positive, confident and cooperative language
  - use of language and concepts appropriate to individual social and cultural differences
  - control of tone of voice
  - body language
- Charge sheets** are to include:
- records of the treatment plant charge
  - amount of power and energy developed and used
- Reconciliation statements** are to include:
- statements reflecting chemical usage and cost
  - treatment times for cycles
  - breakdown losses
  - energy costs
  - modification expenses
- Process trends** are to include:
- mapping processing conditions to establish trends
  - using this information for modifications
- Disposing of** may include:
- recycling sub-standard timber/unsuccessful trial material
  - re-using sub-standard timber/unsuccessful trial material
- Records and reports** may include:
- planning and monitoring outcomes
  - reconciliations
  - charge sheets
  - material movement
  - despatch outcomes
  - storage locations
  - quality outcomes
  - hazards
  - incidents
  - equipment malfunctions
- and may be:
- manual
  - using a computer-based system or another appropriate organisational communication system
- Technical developments** may include:
- less toxic chemicals
  - improved methods of chemical penetration
  - improved chemical formulation
  - improved process methods

## **Unit Sector(s)**

**Unit sector** No sector assigned

## **Co-requisite units**

**Co-requisite units**

## **Competency field**

**Competency field** Sawmilling and Processing