



Australian Government

FWPSAW3201 Treat timber

Release: 1

FWPSAW3201 Treat timber

Modification History

Release	Comment
1	Replaces equivalent unit FPISAW3201B Treat timber, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to chemically treat timber and to operate the treatment plant to complete treatment cycles. Work is completed in a forest products factory setting.

The unit applies to those who treat timber in a forest products factory setting. Specific job roles can include treatment plant operator, kiln operator or timber products technician.

Copper Chrome Arsenate (CCA) chemical is a restricted chemical product, which means that CCA can only be supplied to and handled by suitably trained and authorised persons.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) advised that as of 1 July 2012, CCA products can only be supplied to, and used by, suitably trained persons authorised under a relevant state or territory law from that date.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction.

In Victoria, to comply with licence/permit requirements, organisations must ensure that employees working with CCA demonstrate competence in this unit (FWPSAW3201 Treat timber), or that persons working with CCA do so under the direct supervision (sight and sound) of a trained and authorised person.

For regulatory information and details in other states and territories refer to the state or territory licensing body.

Pre-requisite Unit

Nil

Unit Sector

Sawmilling and Processing

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for treating timber	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective equipment and check for operational effectiveness. 1.3 Obtain chemicals and type and quantity of timber for treatment from storage. 1.4 Plan treating cycles in line with work order.
2. Use equipment to treat timber	2.1 Complete pre start-up equipment checks to ensure operational effectiveness. 2.2 Identify water requirements and check to ensure treatment process requirements are met. 2.3 Test moisture content of timber in line with organisational procedures. 2.4 Check, adjust and maintain strength of preservative solution at specified strength and volume. 2.5 Bring treating plant to full operating condition and regularly check operating parameters to ensure optimum output. 2.6 Load timber into treatment vessel and complete treatment cycles. 2.7 Brand treated timber in line with organisational procedures. 2.8 Safely handle treated timber and transfer to storage area.
3. Complete operator maintenance	3.1 Follow organisational safety procedures to lock out equipment. 3.2 Check all treatment mechanisms for effective condition. 3.3 Keep machine clear of dust and debris in line with organisational safety procedures. 3.4 Store chemicals in line with organisational safety procedures and report on stock levels. 3.5 Record and report timber treating process and equipment faults to appropriate personnel.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	- identify quantities of required timber within work orders and count numbers for treatment - calculate routine solution strengths and retention rates for preservative solutions - complete basic measurements of moisture content in timber.
Oral communication skills to:	ask open and closed probe questions and actively listen to clarify contents of work orders.
Reading skills to:	- interpret: - workplace health and safety and other organisational procedures - work orders - safety data sheets, or equivalent plain English information, for timber treatment chemicals.
Writing skills to:	complete accurate basic records for chemical stock levels, processes and equipment faults.
Planning and organising skills to:	efficiently and logically sequence the stages of timber treatment processes using work order to guide activities.

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Range of Conditions

Not Applicable

Unit Mapping Information

FPISAW3201B Treat timber

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPSAW3201 Treat timber

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Release	Comment
1	Replaces equivalent FPISAW3201B Treat timber, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including 'Required Skills and Knowledge, Evidence Guide and Range Statement'.

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- complete chemical timber treatment processes in line with an individual work orders prescribing different timber types selected from the following list:
 - native timber species
 - imported timber species
 - dressed timber, stress and non-stress graded timber
 - in-the-rough timber
 - sleepers
 - logs, rounded poles
 - beams, laminated beams
- across the above jobs, check, adjust and maintain the strength and volume types of preservative solutions including:
 - water-borne solutions
 - oil-based solutions
 - solvent-based solutions
- at the completion of each of the above jobs, complete operator maintenance, store chemicals and report on stock levels.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection practices for chemically treating timber:
 - reducing water and energy use
 - water management strategies
 - cleaning plant, tools and equipment
 - disposing of hazardous substances
- storage layout and categories for:
 - raw materials
 - storing finished boards
 - chemicals and preservative solutions
- purpose of treating timber
- characteristics of timber types, effects of the treatment process and appropriate range of temperatures
- properties, at a basic level of understanding, of chemicals used to treat timber and their purpose:
- water-borne, oil and solvent based preservative solutions with chemical treatments including:
 - creosote and modified creosote-based
 - copper chrome arsenate salts (CCA)
 - compounds of boron and fluoride salts
 - alkaline copper quaternary (ACQ)
 - light organic solvent-borne preservative (LOSP)
 - micronised copper azole (MCA or Tanalith E)
- personal safety risks associated with handling and using chemicals and methods used to minimise these
- methods used to safely store chemicals
- typical work flow processes and techniques for chemically treating timber:
 - full cell
 - modified cell
 - empty cell
 - immersion
 - rueping
 - double vacuum
 - dip diffusion
 - vat and sprays
- methods used to brand treated timber and range of industry and organisation markings:
 - burning
 - hammer impressions
 - ink
 - tags
- purpose, features and operation of equipment used to chemically treat timber including from the following list:

- treatment cylinders
- working tanks
- mix tanks
- concentrate storage tanks
- effluent tanks
- vacuum pump and seals
- organisational procedures specific to chemically treating timber:
 - workplace health and safety with particular emphasis on equipment lock out, use of personal protective equipment and handling hazardous substances
 - communication reporting lines
 - recording and reporting chemical stock levels, processes and equipment faults.
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Assessment Conditions

The following resources must be made available:

- one or more of the following types of equipment used to chemically treat timber:
 - treatment cylinders
 - working tanks
 - mix tanks
 - concentrate storage tanks
 - effluent tanks
- branding equipment and consumables
- personal protective equipment suitable for chemically treating timber
- one or more of the following types of timber to be chemically treated:
 - native timber species
 - imported timber species
 - dressed timber
 - in-the-rough timber
 - stress and non-stress graded timber
 - sleepers
 - logs
 - rounded poles
 - beams
 - laminated beams
- one or more of the following types of preservative solution:
 - water-borne solutions
 - oil-based solutions
 - solvent-based solutions
- manufacturers 'safety data sheets, or equivalent plain English information, for chemicals and preservative solutions

- work order with specific instructions for chemical treatment of timber
- template documents for recording chemical stock levels, processes and equipment faults
- organisational procedures for chemically treating timber
- relevant personnel for the purposes of communicating information
- a suitably licensed person to monitor and supervise handling of CCA during assessment.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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