



Australian Government

FWPSAW3242 Treat timber

Release: 1

FWPSAW3242 Treat timber

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 5.0.

Application

This unit of competency describes the skills and knowledge required to chemically treat timber, including planning for chemically treating timber, safely handling and storing chemicals, operating treatment equipment, and undertaking basic maintenance of treatment equipment.

The unit applies to individuals who treat timber in a timber treatment plant or sawmill. Specific job roles can include treatment plant operator, kiln operator or timber products technician.

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 copper chrome arsenate (CCA) demonstrate competence in this unit (FWPSAW3242 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 relevant state or territory licensing body.

Pre-requisite Unit

Nil

Unit Sector

Sawmilling and Processing (SAW)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for treating timber	1.1 Review work order to determine job requirements and, where required, seek clarification from appropriate personnel 1.2 Review workplace health and safety procedures, including the use of personal protective equipment, equipment lock-out and safe manual handling techniques 1.3 Identify, assess and take actions to mitigate risks and hazards associated with treating timber 1.4 Identify workplace environmental protection procedures for minimising and disposing of waste material, cleaning tools and equipment, and maximising energy efficiency 1.5 Obtain chemicals and type and quantity of timber for treatment from storage 1.6 Plan treating cycles according to 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 according to workplace procedures 2.4 Check, adjust and maintain strength and volume 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 the storage area 2.9 Record outcomes of timber treatment process, and report to appropriate personnel
3. Complete operator maintenance	3.1 Lock out equipment according to workplace safety procedures 3.2 Conduct basic routine checks and maintenance of treatment equipment according to manufacturer specifications 3.3 Store chemicals according to workplace safety procedures, and report on stock levels 3.4 Record faults or incidents related to treatment equipment and chemical use and storage, and report to appropriate personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Extracts essential information from safety data sheets, or equivalent plain English information on safe use, handling, transport and disposal of timber treatment chemicals
Writing	Accurately completes basic workplace forms and records for chemical stock levels, processes and equipment faults
Oral communication	Employs active listening and questioning to clarify the content of work orders
Numeracy	- Performs basic mathematical calculations to determine routine solution strengths and retention rates for preservative solutions - Completes basic measurements of moisture content in timber - Identifies quantities of required timber within work orders, and counts numbers for treatment
Navigate the world of work	Understands main tasks, responsibilities and boundaries of own role
Interact with others	Uses modes of communication suitable to purpose to confirm and clarify understanding
Get the work done	Recognises and responds to routine problems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPSAW3242 Treat timber	FWPSAW3201 Treat timber	Reworded application statement and performance evidence for clarity; updated requirements regarding workplace health and safety and environmental protection in performance criteria and performance evidence to match knowledge evidence; updated foundation	Equivalent unit

		skills	
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Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPSAW3242 Treat timber

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that, on at least on one occasion, the individual has:

- completed the chemical treatment process according to an individual work order for one of the following timber types:
 - timber from native species
 - timber from imported species
 - dressed timber
 - stress and non-stress graded timber
 - in-the-rough timber
 - sleepers
 - logs, rounded poles
 - beams, laminated beams
- during the treatment process, checked, adjusted and maintained the strength and volume for one of the following types of preservative solutions:
 - water-borne solutions
 - oil-based solutions
 - solvent-based solutions
- during the treatment process, complied with:
 - workplace health and safety requirements for chemically treating timber
 - environmental protection procedures for chemically treating timber
- at the completion of the treatment process, completed each of the following three tasks:
 - conducted routine operator equipment maintenance
 - safely stored chemicals
 - reported on stock levels.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- 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 the following water-borne, oil-based and solvent-based chemicals used to treat timber, and their purpose:
 - creosote and modified creosote-based
 - copper chrome arsenate (CCA) salts
 - compounds of boron and fluoride salts
 - alkaline copper quaternary (ACQ)
 - light organic solvent-borne preservative (LOSP)
 - micronised copper azole (MCA or Tanalith E)
- risks and hazards associated with handling and using chemicals, and methods used to minimise these
- safety sign and symbols related to chemical use in the workplace
- typical workflow 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 treat timber chemically:
 - treatment cylinders
 - working tanks
 - mix tanks
 - concentrate storage tanks
 - effluent tanks
 - vacuum pump and seals
- storage layout and categories for:
 - raw materials

- storing finished timber
- chemicals and preservative solutions
- environmental protection practices for chemically treating timber:
 - disposing of hazardous substances
 - reducing water and energy use
 - water management strategies
 - cleaning plant, tools and equipment
- workplace procedures for chemically treating timber:
 - workplace health and safety, with particular emphasis on equipment lock-out, use of personal protective equipment (PPE), safety data sheets, handling, transporting and storing chemicals and hazardous substances, and responding to chemical-related incidents
 - communication reporting lines
 - recording and reporting chemical stock levels, processes and equipment faults.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a timber treatment plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - one or more of the following types of equipment used to treat timber chemically: treatment cylinders, working tanks, mix tanks, concentrate storage tanks, effluent tanks
 - branding equipment and consumables
 - PPE suitable for chemically treating timber
 - timber to be chemically treated
 - one or more of the following types of preservative solution: water-borne solutions, oil-based solutions or solvent-based solutions
- specifications:
 - manufacturer safety data sheets or equivalent plain English information for chemicals and preservative solutions
 - work order with specific instructions for the chemical treatment of timber
 - template documents for recording chemical stock levels, processes and equipment faults
 - workplace procedures for chemically treating timber.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. A suitably licensed person must be present to monitor and supervise the handling of CCA during assessment.

Links

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