



**Australian Government**

# **FWPCOT3249 Select timber preservation techniques**

**Release: 1**

# FWPCOT3249 Select timber preservation techniques

## Modification History

| Release | Comment                                                                                                                                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Replaces equivalent unit FPICOT3249A Select timber preservation techniques, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.<br><br>This is the first release of this unit in the new standards format. |

## Application

This unit of competency describes the outcomes required to select timber preservation techniques taking into account the principles of environmental suitability and sustainability.

The unit applies to those working in technical roles in the forestry and forest products industry.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Sawmilling and Processing

Timber Manufactured Products

Timber Merchandising

Wood Panel Products

Timber Truss and Frame Design and Manufacture

## 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. Where bold italicised text is used, further information is detailed in the range of conditions.</i> |

| ELEMENTS                                                     | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Determine preservation requirements for timber            | 1.1 Identify service requirements for preservation of timber.<br>1.2 Identify required chemical retention rates and calculate suitable solution strengths.<br>1.3 Identify penetration pattern of timber for treatment.                                                                                                                                                                                                                                      |
| 2. Decide on appropriate preservation technique/s for timber | 2.1 Investigate options for preservation techniques for job requirements and their environmental impact.<br>2.2 Review and compare options for suitability and value.<br>2.3 Select most appropriate preservation technique.<br>2.4 Identify and follow water management procedures.<br>2.5 Develop contingency management plans.<br>2.6 Implement quality assurance procedures for preserving timber.<br>2.7 Implement environmental monitoring procedures. |

## Foundation Skills

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

- calculate chemical solution strengths, timber and fluid volumes; measure chemical salt retention rates.

## Range of Conditions

Not Applicable

## Unit Mapping Information

FPICOT3249A Select timber preservation techniques

## 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 FWPCOT3249 Select timber preservation techniques

## Modification History

| Release | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | <p>Replaces equivalent unit FPICOT3249A Select timber preservation techniques, 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.</p> <p>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</p> |

## 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:

- follow organisational procedures for selecting timber preservation techniques
- select the most suitable preservation technique for different types of timber considering chemical retention rates and preservation patterns.

## Knowledge Evidence

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

- organisational procedures for preserving timber and selecting timber preservation techniques
- environmental risks and hazards associated with different preservation techniques
- timber preservation chemicals and their safe use and storage
- timber preservation techniques including:
  - full cell (Bethel) process
  - empty cell process
  - rueping process
  - double treatment

- boultonising
- Australian Standards for timber preservation and market requirements, particularly Australian Standard (AS) 1604.1-2010 Specification for preservative treatment - Sawn and round timber and in Queensland, the Queensland Timber Utilisation and Marketing Act
  - service requirements including:
  - treated timber hazard ratings
  - marine borer hazard ratings
  - timber durability ratings
- chemical retention rate/s including the amount of preservative retained in a piece of timber after treatment and fixation have taken place, and must be expressed as either weight for volume or weight for weight.
- preservation patterns including the distribution of preservative within the cross section of a treated piece of timber.
- water management procedures including consideration of:
  - ground water monitoring
  - bund storages
  - contaminated water containment
  - contaminated water reuse
  - drip pads
- contingency plans including consideration of:
  - chemical handling and spill procedures
  - groundwater leakage procedures
  - fire suppression procedures
  - emergency evacuation procedures
- environmental monitoring procedures including monitoring of:
  - groundwater
  - chemical disposal
  - residue disposal
  - dust
  - noise
- types of tools and equipment, used for timber preservation and their safe use and maintenance.

## Assessment Conditions

The following resources must be made available:

- organisational policies and procedures for selecting timber preservation techniques
- examples of preservatives and end uses from which candidates must select appropriate chemicals and techniques.

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.

## Links

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