



Australian Government

**Assessment Requirements for
FWPCOT4222 Plan for and supervise
timber treatment plant operations**

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 8.0.

Performance Evidence

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

There must be evidence that the individual has planned and supervised a timber treatment operation for two production cycles.

In performing this work, the individual has:

- followed workplace policies and procedures relevant to planning and monitoring timber treatment plant operations
- complied with legislation, standards and codes of practice relevant to timber treatment plant operations
- assessed, scheduled and applied treatment plant procedures for timber samples
- monitored treatment plant performance and modified operations as required
- analysed and assessed technical developments for incorporation into existing operations and procedures
- mapped processing conditions to establish trends and use this information for modifications
- modified timber treatment plant operations for the workplace, as required
- followed planning, communications and scheduling requirements for timber treatment plant operations
- completed charge sheets to complete records of:
 - treatment plant charge
 - amount of power and energy developed and used
- completed reconciliation statements detailing:
 - chemical usage and cost
 - treatment times for cycles
 - breakdown losses
 - energy costs
 - modification expenses.

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:

- workplace standards, requirements, policies and procedures for planning and monitoring timber treatment plant operations
- legislation, standards and codes of practice relevant to timber treatment operations
- environmental protection requirements and practices, including:
 - safe disposal of waste material
 - water management
 - safe use and storage of chemicals
 - minimisation of carbon emissions
 - water management
- hazards and potential risks associated with timber treatment operations, including chemical hazards and actions to mitigate risks associated with chemical use
- principles and purpose of treatment processes and their effect on wood impregnation
- advantages and limitations of different treatment processes
- types of biological attack and their impact in terms of visual appearance and degrading effect on wood, including:
 - decay
 - mould
 - fungi
- effect of surface mould and sapstain fungi on treatment uptake
- influence of moisture content and moisture gradient on treatment effectiveness
- operating parameters, capability and capacity of the treatment plant
- operating components of treatment plant
- plant control and product testing equipment
- factors for consideration when scheduling charges to optimise production throughputs
- preservative types and formulations
- causes of solution imbalance and possible corrective actions
- typical workflow processes and techniques for chemically treating timber, including:
 - full cell
 - modified cell
 - empty cell
 - double vacuum
 - immersion
 - rueping
 - dip diffusion
 - vat and sprays
- moisture content of timber for treatment
- effective and efficient use of energy and materials
- timber treatment plant operation procedures

- water management methodologies
- waste minimisation control measures
- treatment plant modification strategies
- technical development diagnosis and solution methodologies
- types of tools and equipment and procedures for their safe use, operation and maintenance
- procedures for recording and reporting workplace information
- maintenance requirements for treatment plants.

Assessment Conditions

Assessment of the skills in this unit of competency 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:
 - timber treatment plant and associated equipment and materials
 - a suitably licensed person to monitor and supervise handling of copper chrome arsenate (CCA) during assessment, where CCA is used
 - personal protective equipment required for chemically treating timber
- specifications:
 - workplace health and safety and environmental protection policies and/or procedures applicable to chemically treating timber
 - templates or formats for records including charge sheets and reconciliation statements
 - workplace procedures for chemically treating timber
 - manufacturer safety data sheets for chemicals and preservative solutions.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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