



Australian Government

FWPCOT3248 Dry timber in solar assisted kilns

Release: 1

FWPCOT3248 Dry timber in solar assisted kilns

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3248A Dry timber in solar assisted kilns, which was first released with FPI05 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 dry timber in solar assisted kilns, to appropriate moisture contents and stress levels. It covers hardwood and softwood and includes evaluation of energy savings and principles of sustainability.

The unit applies to those working in a range of 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. Prepare for drying	1.1 Review and check work order. 1.2 Obtains type and quantity of timber to be dried from the conversion process. 1.3 Visually assess racks to be dried for consistent drying characteristics. 1.4 Select equipment required for the work requirements and check for operational effectiveness. 1.5 Select oven sections and sample boards, cut according to standard operating procedures and measure moisture content. 1.6 Plan drying process according to organisational procedures.
2. Load kiln and control kiln conditions	2.1 Conduct pre start-up checks according to manufacturer's instructions. 2.2 Follow emergency shutdown procedures in the case of alarm being triggered 2.3 Load kiln with racks selected for processing complete records of loading. 2.4 Position baffles and/or blankets according to standard operating procedures.
3. Monitor kiln conditions	3.1 Monitor and measure moisture content and review results against drying plan and initial measurement. 3.2 Check and adjust kiln control settings to ensure drying schedules are met. 3.3 Monitor kiln charge for drying degrade and assess the need for reconditioning or high humidity treatment.
4. Check timber quality on completion of drying	4.1 Identify drying end point and make kiln safe for entry. 4.2 Open kiln and check moisture content of processed timber. 4.3 Prepare drying stress samples and measure for specified use 4.4 Rectify unsuitable drying stresses within site procedures. 4.5 Visually assess drying quality, identify sub-standard material and direct for re-use according to site and environmental procedures.
5. Unload kiln and move or store timber	5.1 Remove moisture probes and baffles and/or blankets from timber. 5.2 Direct timber to storage or processing operations and check that packs are labelled in line with site requirements 5.3 Clean work area according to site requirements.

ELEMENTS	PERFORMANCE CRITERIA
	5.4 Complete records and reports for 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:	• measure and tally timber size and volumes • apply and re-arrange algebraic formulae • measure and convert metric units of weight, size, volume, heat and energy
Oral communication skills to:	• communicate operating issues to supervisors and co-workers
Reading skills to:	• locate and interpret timber drying schedules

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3248A Dry timber in solar assisted kilns

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 FWPCOT3248 Dry timber in solar assisted kilns

Modification History

Release	Comment
2.0	Replaces equivalent FPICOT3248A Dry timber in solar assisted kilns, 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:

- follow organisational procedures to safely and efficiently dry timber in solar assisted kilns
- dry timber to appropriate moisture contents and stress levels
- operate and monitor a solar assisted kiln, and make necessary adjustments in the course of the drying process
- measure the amount of moisture content of timber or timber products during and after kiln drying
- keep degrade to a minimum when drying timber
- manage the safe movement of timber throughout all stages of the drying process
- produce accurate reports and records of the drying process.

Knowledge Evidence

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

- organisational procedures for drying timber
- energy efficiency and savings obtained from various types of solar kilns
- types of tools and equipment and procedures for their safe use, operation and maintenance in the course of drying timber in the solar assisted kilns

- species identification for timbers
- drying techniques including development and relief of drying stresses
- identification of drying degrade including surface checks, internal checks, end splits, collapse, excessive distortion, bow, spring, twist, cup and case hardening
- procedures for the operation of solar assisted kilns
- the anticipated process the timber will undergo to remove moisture to target moisture content including air drying, sheltered air drying, pre-drying, reconditioning, high humidity treatments, final kiln drying, equalising, conditioning
- types of timber degradates and how they develop
- wood-water relationships in the drying process
- methods of visual inspection
- characteristics of timber including native timber species, imported timber species and preservative treated timber
- quality and distribution processes
- storage systems and labelling.

Assessment Conditions

The following resources must be made available:

- solar assisted kiln
- timber for drying
- personal and protective equipment required for drying timber in solar assisted kilns.

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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