



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3206B Dry softwood

Release: 1

FPISAW3206B Dry softwood

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit describes the outcomes required to prepare timber racks for processing, load conventional and high temperature kilns, monitor and control kiln conditions to dry and recondition softwood, unload kilns and process timber General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication This unit replaces FPISAW3206A Dry softwood
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Application of the Unit

Application of the unit	The unit involves drying softwood in a forest products factory The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for drying	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to drying softwood are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Type and quantity of softwood to be dried are assessed and acquired from the conversion process 1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.5. Drying process is planned in line with site procedures 1.6. Communication with others is established and maintained in line with OHS requirements
2. Load and control kiln conditions	2.1. Racks to be dried are visually assessed for consistent drying characteristics and adjusted to meet site requirements 2.2. Moisture content is measured and routinely compared with anticipated levels in line with standard operating procedures 2.3. Pre start-up checks are carried out on equipment in line with site requirements 2.4. Emergency shut down procedures are followed in case of alarm being triggered 2.5. Kiln is loaded with racks selected for processing and loading completed and reported 2.6. Baffles and blankets are positioned in line with standard operating procedures 2.7. Kiln control settings are regularly adjusted and routinely checked to site drying schedules
3. Unload kiln and process softwood	3.1. Drying end point is identified and kiln made safe for entry 3.2. Kiln is opened and moisture content of processed softwood identified in line with anticipated equilibrium moisture content 3.3. Moisture probes and baffles are removed from timber 3.4. Softwood is directed and moved to storage or

ELEMENT**PERFORMANCE CRITERIA**

- processing operations in line with site requirements
- 3.5. Sub-standard material is rejected and ***disposed of*** in line with site procedures and environmental requirements
- 3.6. Work area is cleaned in line with site requirements
- 3.7. Drying process and equipment faults are ***recorded and reported*** to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely dry softwood
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to measure moisture levels, and to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for drying softwood
- Environmental protection requirements, including the safe disposal of waste material, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for drying softwood
- Environmental risks and hazards
- Using energy effectively and efficiently
- Drying techniques
- Kiln operation procedures
- Methods of visual inspection

REQUIRED SKILLS AND KNOWLEDGE

- Characteristics of softwood
- Distribution processes
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently dry softwood in line with organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to drying softwood
- following organisational policies and procedures relevant to drying softwood
- drying softwood in readiness for storage and/or processing
- conducting kiln operations
- redistributing timber on site using designated equipment

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of

EVIDENCE GUIDE

workplace relevant contexts) together with application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements:

are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and

RANGE STATEMENT

may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- machine isolation and guarding
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures

RANGE STATEMENT

- ethical standards
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Work order is to include:

- instructions for the drying of softwood

and may include:

- species
- colour
- type
- width
- length
- thickness
- quantity
- instructions for the environmental monitoring of work and procedures
- environmental care requirements relevant to the work

Appropriate personnel may include:

- supervisors
- suppliers
- clients
- colleagues
- managers

Softwood

is non-pored wood, usually comes from trees with needle like foliage and has a more uniform cell structure native timber species

and may include:

- imported timber species
- dressed timber
- in-the-rough timber
- preservative treated timber

Drying

is the process of:

- placing timber in a heat controlled kiln to dry high levels of moisture from timber causing cell collapse
- followed by humidity generation to recondition timber to its former shape and

RANGE STATEMENT

	desired EMC
Conversion process is to include:	• sawing logs into flitches • converting flitches into green boards
Equipment may include:	• conventional, high temperature, very high temperature and extremely high temperature kilns and vacuum dryers of 60 to 150 degrees Celsius or higher with a heat source that may be steam, hot oil or gas
	and is to include:
	• procedures for equipment lock-out such as protecting operators and co-workers from accidental injury by isolating the machine from the power source
Communication may include:	• verbal and non-verbal language • constructive feedback • active listening • questioning to clarify and confirm understanding • use of positive, confident and cooperative language • use of language and concepts appropriate to individual social and cultural differences • control of tone of voice • body language
Visually assessed	is the assessment of materials to determine finish quality and faults
	and may include:
	• stability • spacing of strips • support to minimise warping
Moisture content	is the amount of moisture maintained in timber or timber products after drying to avoid cracking and deforming
	and may include:
	• testing for capacitance • resistance • oven dry conditions
Pre start-up checks	are conducted to ensure:
	• equipment has been set-up correctly

RANGE STATEMENT

- systems are performing accurately
- equipment is operating to optimum performance

Emergency shut down

is the immediate shutting off of the equipment to prevent an accident or prevent damage to the machine or product

Kiln

refer to equipment

Baffles and blankets

assist in the drying process by controlling moisture

Drying schedule

is the drying times based on moisture content

Drying end point

is the predicted time when the drying process will be completed and the desired moisture content achieved

Equilibrium moisture content (EMC)

is the moisture level to be achieved by drying which will be sustainable in the environment after processing thereby retaining its shape and strength without excessive movement

Moisture probes

are probes pierced into random boards which provide moisture readings on the kiln gauges to assist in modifying the drying schedule

On-site movement of material
may include:

the use of:

- conveyor belt systems
- track systems
- lifting equipment such as:
 - fork lifts
 - slings
 - trolley jacks
 - gantry cranes
 - loaders

assistance with lifting such as:

- the involvement of two or more personnel to lift materials manually or to guide the movement of mechanical equipment

Storage may include:

- storage racks
- storage bays
- bins

RANGE STATEMENT

- stacks
- pallet boxes
- modularised storage components
- temporary stacking bays (stand, frame or ground)

and may be divided into:

- standard product classification
- product designation
- size
- dimension
- stack number
- weight
- grade
- shelf life
- stock rotation position

Disposing of may include:

- recycling sub-standard material
- re-using sub-standard material

Records and reports may include:

- drying requirements
- product type
- size
- inspection
- grading and labelling outcomes
- storage locations
- quality outcomes
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or other appropriate organisational communication system

Unit Sector(s)

Unit sector

No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing