



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FPISAW2203B Sort boards mechanically**

**Release: 1**

## **FPISAW2203B Sort boards mechanically**

### **Modification History**

Not Applicable

### **Unit Descriptor**

**Unit descriptor** This unit describes the outcomes required to set up, operate and maintain a mechanical sorting machine to process boards of varying sizes

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 FPISAW2203A Sort boards mechanically

### **Application of the Unit**

**Application of the unit** The unit involves sorting boards mechanically in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

### **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 sorting	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to sorting boards mechanically are identified and followed</p> <p>1.2. <i>Work order</i> is reviewed and checked with <i>appropriate personnel</i></p> <p>1.3. Type and quantity of <i>boards</i> to be <i>sorted</i> are assessed and acquired from the <i>storage location</i></p> <p>1.4. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.5. Sorting process is planned in line with site procedures</p> <p>1.6. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Sort boards	<p>2.1. <i>Pre start-up checks</i> are carried out on equipment in line with site requirements</p> <p>2.2. Board cross-sections, lengths and <i>grades</i> to be sorted are identified, <i>size discriminations</i> set and timber flow to the machine planned</p> <p>2.3. <i>Program</i> linking board sizes to storage bins or trays is selected, entered and adjusted to optimise storage space and ensure an efficient operation</p> <p>2.4. Sorting process is conducted automatically and correct operation of the machine, gates, conveyors and bins checked</p> <p>2.5. Flow of material is maintained and boards are directed to subsequent operations in line with size and grade</p> <p>2.6. Machine performance is monitored to ensure board sizes are consistent with machine settings and <i>visual inspection</i></p> <p>2.7. Boards rejected during the automatic sorting process or visual inspection are <i>disposed of</i> in line with site procedures and environmental requirements</p> <p>2.8. Sorting process and equipment faults are <i>recorded and reported</i> to the appropriate personnel</p>
3. Conduct operator maintenance	<p>3.1. Equipment lock-out procedures are followed in line with OHS legislation and site procedures</p> <p>3.2. <i>Photo electric cells and reflectors</i> or other switching</p>

**ELEMENT****PERFORMANCE CRITERIA**

- systems are regularly cleaned and checked
- 3.3.Sorting machine size identification mechanisms are checked, maintained and cleaned
- 3.4.Sorting area is kept clear of dust, off-cuts and debris in line with OHS requirements

## 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 operate sorting equipment
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately locate, record and report information
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to review and accurately identify work requirements; 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 sorting boards mechanically
- 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 sorting boards mechanically
- Environmental risks and hazards
- Sorting procedures and mechanical sorting techniques
- Grading markings and quality standards
- Storage systems and labelling
- 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

**REQUIRED SKILLS AND KNOWLEDGE**

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 operate mechanical sorting equipment 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 sorting boards mechanically
- following with organisational policies and procedures relevant to sorting boards mechanically
- operating mechanical sorting equipment in readiness for allocation of timber to storage or downstream operations
- accurately setting mechanical sorting equipment parameters
- conducting operator maintenance on mechanical sorting 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

## EVIDENCE GUIDE

### 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 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.



## RANGE STATEMENT

### **OHS requirements:**

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

## RANGE STATEMENT

- OHS, emergency and evacuation procedures
  - 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 mechanical sorting of timber
- and may include:
- type
  - width
  - length
  - thickness
  - quantity
- and may also include:
- 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
- Boards** may include:
- native timber species
  - imported timber species
  - dressed timber
  - in-the-rough timber
  - stress and non-stress graded timber
  - preservative treated timber
- Sorting** may include:
- classifying timber into lots consisting of the same size and grade dependent on:
    - length
    - width
    - thickness
    - quality of board
    - or sorting for other production lines or

## RANGE STATEMENT

waste

**Storage locations** may include:

- storage racks
- storage bays
- bins
- 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

**Equipment** is to include:

- mechanical sorting machines

and may include:

- drop sorters
- waterfalls
- unscramblers
- tray sorters

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

## RANGE STATEMENT

- control of tone of voice
- body language

### Pre start-up checks

are conducted to ensure:

- equipment has been set-up correctly
- systems are performing accurately
- equipment is operating to optimum performance

### Grading

is the process of:

- visually evaluating material characteristics and defects for classification into varying strength and appearance grades
- inspecting timber to classify quality of individual boards

### Size discrimination

is the settings on the mechanical sorting machine which identify and classify the size of boards, determining their allocation to a size category

### Program

is the computer based program which determines sorting of varying sized boards to their allocated storage area

### Visual inspection is to include:

the assessment of timber to determine:

- finish quality
- faults

### Disposing of may include:

- recycling rejected boards
- re-using rejected boards

### Records and reports may include:

- automatic sorting requirements
- product type
- size
- inspection
- grading and marking outcomes
- storage locations
- quality outcomes
- hazards
- incidents
- equipment malfunctions

and may be:

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

**RANGE STATEMENT**

system

**Photo electric cells and reflectors** are sensory devices which calculate size and tell the computer where to direct the board

**Unit Sector(s)**

**Unit sector** No sector assigned

**Co-requisite units**

**Co-requisite units**

**Competency field**

**Competency field** Sawmilling and Processing