



**Australian Government**

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

# **FPISA W3203B Break down logs**

**Release: 1**

## **FPISAW3203B Break down logs**

### **Modification History**

Not Applicable

### **Unit Descriptor**

**Unit descriptor** This unit describes the outcomes required to prepare logs for sawing, to set up the processing of logs, to break down the logs and maintain the production flow

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

### **Application of the Unit**

**Application of the unit** The unit involves breaking down logs 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 sawing	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to <i>breaking down logs</i> 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. <i>Equipment</i> is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.4. Sawing process is planned in line with site procedures and to <i>optimise</i> volume and quality of <i>sawn recovery</i></p> <p>1.5. <i>Communication</i> with others is established and maintained in line with OHS requirements</p>
2. Break down logs	<p>2.1. <i>Pre start-up checks</i> are carried out on equipment in line with site requirements</p> <p>2.2. Logs are secured with <i>dogs</i> minimising damage and aligned with the saw</p> <p>2.3. Logs are cleared of foreign matter and fed into the saw at the <i>feed rate</i> prescribed by organisational requirements</p> <p>2.4. Break down process is regularly checked and adjusted to maintain the desired quality and output</p> <p>2.5. Break down process and equipment faults are <i>recorded and reported</i> to the appropriate personnel</p> <p>2.6. Sub-standard material from the break down process is rejected and <i>disposed of</i> in line with site procedures and environmental requirements</p> <p>2.7. Processed logs are safely directed to the next stage of processing or storage in a designated location in line with work order requirements</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. Saw and saw blades are checked for blunt or damaged condition</p> <p>3.3. Blunt or damaged saws and saw blades are identified and <i>dealt with</i> in line with site procedures, manufacturer's recommendations and environmental requirements</p> <p>3.4. Machine area is kept clear of dust and debris in line</p>

## **ELEMENT**                      **PERFORMANCE CRITERIA**

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 break down logs
- 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 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; accurately identify blunt or damaged saws

##### **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 breaking down logs
- 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 breaking down logs
- Environmental risks and hazards
- Log break down systems
- Characteristics of timber and timber defects
- Break down processes, feed rates and finish
- Blade condition assessment
- 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 maintenance

**REQUIRED SKILLS AND KNOWLEDGE**

- 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 break down logs within 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 breaking down logs
- following organisational policies and procedures relevant to breaking down logs
- breaking down logs to produce sections in line with the work order and within prescribed organisational specifications
- conducting operator maintenance on saw machinery
- 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

### Context of and specific resources for assessment

### 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

## EVIDENCE GUIDE

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. **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 may include:



## RANGE STATEMENT

- 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
- ethical standards
- recording and reporting requirements

## RANGE STATEMENT

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

### **Breaking down logs**

is the process of cutting a log into flitches, cants or slabs, taking into account the characteristics of the log, such as regrowth logs, and processing requirements

and may include:

- assessment of diameter range
- curvature
- faults
- species

### **Work order** is to include:

- instructions for the sawing logs and despatch of flitches or cants from the work site to down-stream processing

and may include:

- treating
- species
- diameter
- length
- quantity
- grade
- 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

### **Equipment** may include:

- circular saws
- bench saws
- overhead frame saws or band saws (single, twin, single edges and twin edges)
- mechanical feed
- conveyors
- standard three headed dog carriages

## RANGE STATEMENT

- flat top carriages with head rigs

and is to include:

- procedures for machine lock-out, i.e. protecting operators and co-workers from accidental injury by isolating the machine from the power source

**Optimising** includes:

- planning the cutting of a log to achieve the most from it
- ensuring environmental requirements are central to this planning process

**Sawn recovery**

- is the volume of timber sawn from a resource compared to the volume of that resource
- is expressed as a percentage -  $\text{sawn timber volume} / \text{initial log volume} \times 100$
- maximises the value of the resource

**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

**Pre start-up checks**

are conducted to ensure:

- saw has been set-up correctly
- blades are installed accurately
- machinery is operating to optimum performance

**Dogs**

are the carriage devices which clamp logs during break down

**Feed rate** is to include:

- rate of speed the material is passed through the machine affecting the sharpness of the blades
- finish of the material
- production output

**Records and reports** may include:

- the sawing procedures
- product type

## RANGE STATEMENT

- size
- inspection
- grading and labelling outcomes
- storage locations
- quality outcomes
- hazards
- incidents
- equipment malfunctions

and may be:

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

**Disposing of** may include:

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

**Dealing with** may include:

- repairing blunt or damaged saws and saw blades
- disposing of saws and saw blades that cannot be repaired

## Unit Sector(s)

Unit sector                      No sector assigned

## Co-requisite units

Co-requisite units

## **Competency field**

**Competency field**                      Sawmilling and Processing