



Australian Government

FWPSAW3227 Select and saw logs in multi-species operations

Release: 1

FWPSAW3227 Select and saw logs in multi-species operations

Modification History

Release	Comment
1	Replaces equivalent unit FPISAW3227B Select and saw logs in multi-species operations, 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.

Application

This unit of competency describes the outcomes required to select and set up the processing of multi-species logs, saw logs into flitches or cants and maintain the production flow, allowing for changes in species. Work is completed in a forest and wood products factory and includes operator maintenance.

The unit applies to Sawmill Worker, Production Worker, Sawyer.

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

Elements and 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>
1. Prepare for sawing and select logs	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective equipment and check for operational effectiveness. 1.3 Select appropriate logs according to species and size or grade and billet to suit work order.

	1.4 Reject, segregate or dispose of defective logs in line with organisational procedures and environmental protection practices.
2. Break down logs	2.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices. 2.2 Complete pre start-up checks to ensure operational effectiveness. 2.3 Use dogs to secure and align logs to saw and minimise damage. 2.4 Clear logs of foreign matter and feed into saw at feed rate in line with organisational safety procedures. 2.5 Plan, maintain and adjust sawing sequence to produce required quantity of flitches or cants and maximise feed rate. 2.6 Check and adjust break down process regularly to maintain desired quality and output, allowing for defects and changes in species. 2.7 Direct flitches or cants to designated area in line with work order. 2.8 Identify routine processing problems and resolve or report to appropriate personnel.
3. Complete operator maintenance	3.1 Follow organisational safety procedures to lock out equipment. 3.2 Check saw blades for bluntness or damage. 3.3 Remove and replace saw blades in line with manufacturer's recommendations. 3.4 Dispose of used blades in line with organisational procedures and environmental protection practices. 3.5 Complete basic non-specialist maintenance for equipment. 3.6 Keep machine clear of dust and debris in line with organisational safety procedures. 3.7 Record and report equipment faults and maintenance requirements to 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:	• identify quantities of required material within work orders and count number of logs to be sawn • measure log size across multiple species according to work orders • complete routine calculations to determine correct angles for
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	- aligning logs to equipment - calculate the feed rate to optimise quality and quantity of production output.
Oral communication skills to:	ask questions and actively listen to clarify contents of work orders
Reading skills to:	- interpret: - workplace health and safety and other organisational procedures - work orders - manufacturers' instructions and maintenance recommendations.
Writing skills to:	complete accurate basic records for equipment faults and maintenance requirements.
Planning and organising skills to:	efficiently and logically sequence the stages of preparation and production using work order to guide activities.
Problem-solving skills to:	- identify and dispose of defective logs - identify processing problems and faulty equipment and resolve by reporting or rectifying.
Technology skills to:	- select and use appropriate personal protective equipment for selecting and sawing logs - identify: - species and strength groups of logs - recovery potential of logs - blunt or damaged saw blades - use saws to efficiently and safely saw logs in multi-species operations.

Range of Conditions

Not Applicable

Unit Mapping Information

FPISAW3227B Select and saw logs in multi-species operations

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 FWPSAW3227 Select and saw logs in multi-species operations

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Release	Comment
1	Replaces equivalent unit FPISAW3227B Select and saw logs in multi-species operations, 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 policies and procedures relevant to selecting and sawing logs in multi-species operations
- select logs in line with production requirements and log utilisation, including assessment of
 - diameter range
 - curvature
 - faults
 - softwood species of various types
 - moisture content
- select and saw logs in multi-species operations to produce flitches in line with a work order and within prescribed organisational specifications
- adjust break down process regularly to allow for changes in species
- complete these types of basic non-specialist maintenance:
 - cleaning the machine of wood chips and sawdust
 - replacing blunt saw blades
 - inspecting machine parts for wear or damage, including guards
 - greasing and lubricating moving parts
 - checking the operation of emergency stop buttons and lock out systems.

Knowledge Evidence

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

- purpose, features and operation of equipment used to saw flitches and cants:
 - carriages:
 - standard three headed dog carriages
 - flat top carriages with head rigs
 - saws:
 - circular saws
 - bench saws
 - overhead frame saws or band saws
- mechanical feed
- conveyor system to transport logs to and from the sawing area
- maintenance tools and equipment for saws
- typical range of industry and organisation specific species types:
 - visual characteristics of logs
 - recovery characteristics
- typical work flow processes for sawing flitches and cants
- methods of adjusting workflow and sawing schedule during operation to account for differences in species
- range of cutting patterns used on logs to achieve maximum output of flitches and cants
- different cutting patterns required for different species of trees
- assessment of logs for:
 - diameter range
 - curvature
 - faults
 - softwood species of various types
 - moisture content
- range of feed rates and how they affect production output and finished quality of flitches and cants
- typical flow of log supply in and out of the sawing area
- methods for assessing saw blade condition
- species and recovery characteristics of timber and timber defects
- cutting pattern requirements, feed rates and finish
- flow control systems and marking requirements
- environmental protection practices for forest products factory settings:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber
- typical log defects and how they affect ability to produce quality flitches and cants:
 - warp

- wane
- curvature
- cupping
- shakes
- insect defects
- knots
- resin pockets
- organisational procedures specific to selecting and sawing logs in multi-species operations:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting processing problems and equipment faults.
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Assessment Conditions

The following resources must be made available:

- one or more of the following types of carriages:
 - standard three headed dog carriages
 - flat top carriages with head rigs
- one or more of the following types of saws:
 - circular saws
 - bench saws
 - overhead frame saws or band saws
- mechanical feed
- conveyor system to transport logs to and from the sawing area
- maintenance tools and equipment for saws
- consumable saw blades
- personal protective equipment suitable for selecting and sawing logs
- a selection of logs from different species of trees
- manufacturers':
 - instructions for equipment use
 - recommendations for repairing and maintaining equipment
- work order with specific instructions for selecting and sawing logs and despatch to downstream processing
- template documents for recording equipment faults and maintenance requirements
- relevant personnel for the purposes of communicating information
- organisational procedures for selecting and sawing logs in multi-species operations.

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.
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