Modification history

| Release | Comments |
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| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 2.1. |

| FWPHAR3210 | Conduct mechanical processor operations |
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| Application | This unit of competency describes the skills and knowledge required to operate a wheeled or tracked mechanical processor in a commercial forest harvesting environment. Activities include processing trees mechanically, segregating, and stacking logs.  The unit applies to individuals who operate a wheeled or tracked mechanical processor. Operators generally work under broad direction and take responsibility for their work.  Work health and safety legislation and environment protection legislation applies to workers in the forest harvesting industry. Requirements vary between state and territory jurisdictions. Users are advised to check with the relevant authority. |
| Prerequisite Unit | Nil |
| Unit Sector | Harvesting (HAR) |

| Elements | Performance Criteria |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Plan and prepare for operations | 1.1 Prepare to work safely according to organisation and site requirements  1.2 Obtain and review environmental, regulatory and legal requirements for conducting mechanical processing operations  1.3 Review work plan and clarify requirements with appropriate personnel  1.4 Select equipment appropriate to work requirements and check for operational effectiveness  1.5 Plan mechanical processor operations in line with site procedures, environmental and heritage concerns  1.6 Identify access to tree or log to be extracted and assess working conditions for safety  1.7 Identify emergency plan procedures to follow in the event of an emergency |
| 2. Operate equipment | 2.1 Conduct pre-operational checks on equipment and attachments in line with manufacturer's recommendations and site procedures  2.2 Establish and maintain communication with other personnel to ensure safety in line with safety requirements  2.3 Detect site hazards associated with processor operations and use safe operating techniques to minimise risk  2.4 Operate mechanical processor within equipment capabilities and limitations, and manoeuvre to ensure safe and efficient operations  2.5 Adjust operating techniques to meet work requirements and site conditions |
| 3. Process individual trees | 3.1 Monitor movement and whereabouts of other personnel to ensure safety  3.2 Plan processing to ensure minimal tree damage and maximum recovery  3.3 Position equipment for stable and safe access to felled tree and to ensure loads are placed within rated load/reach capacity  3.4 Program or modify processing controller to produce standard length and diameter of logs with optimal grade and length combination in line with work plan requirements  3.5 Adjust processing techniques in response to unexpected characteristics, movement or condition of tree  3.6 Move timber/stems to pre-bunching site ensuring personnel safety and minimal damage to the timber and surrounding environment  3.7 Move equipment over pre-arranged routes with minimal damage to the environment |
| 4. Segregate and stack logs | 4.1 Locate stacks to provide appropriate space for the conduct of other landing operations, in line with planned layout and site requirements  4.2 Position and construct log stacks to provide stability and minimise problems from slippage and falling of logs  4.3 Carry out maintenance of log stacks in line with planned layout and site requirements  4.4 Visually assess delivered logs and direct/move to appropriate location for further processing or stacking |
| 4. Carry out machine operator maintenance | 5.1 Follow equipment lock-out procedures in line with WHS requirements and site procedures  5.2 Conduct visual inspection and fault finding procedures are in line with manufacturer's recommendations and site procedures  5.3 Conduct routine operational servicing to maintain optimum operational performance of equipment  5.4 Diagnose faults, malfunctions or problems with equipment and report in line with site procedures  5.5 Clean and store equipment, attachments and other ancillary equipment.  5.6 Record and report mechanical processor operation results in line with site procedures |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Learning | * develop knowledge of log species, quality characteristics, defects and product uses |
| Reading | * interpret production plans and site safety and environmental management plans in a forest harvesting environment * interpret standard operating procedures and/or manufacturers’ instructions for the operation of forest harvesting machinery |
| Writing | * record operation, production and machine maintenance on paper based or electronic media |
| Oral Communication | * interact verbally and non-verbally using agreed systems and processes to communicate with others on site to ensure safe and effective machine operations |
| Numeracy | * interpret gauges relevant to safe operation of harvesting machinery * determine construction of stable log stack * estimate the weight logs to determine loading requirements and compliance to machine specifications |
| Navigate the world of work | * identify and describe own skills, knowledge and experience within context of job role * understand main tasks, responsibilities and boundaries of own role * operate mechanical processoraccording to site standard operating procedures, relevant to own responsibilities |
| Interact with others | * use appropriate vocabulary, including technical language directly relevant to role * use modes of communication suitable to purpose to confirm and clarify understanding * communicate and report operational and safety information to on-site personnel |
| Get the work done | * identify and resolve equipment issues and faults * recognise and respond to routine problems * take responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes |

| Unit Mapping Information | | | |
| --- | --- | --- | --- |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPHAR3210 Conduct mechanical processor operations | FWPHAR3210 Conduct mechanical processor operations | Additional Foundation skills identified. Minor changes to Performance Criteria, Performance Evidence and Knowledge Evidence | Equivalent unit |

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| Links | Companion Volume Implementation Guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingPackages.aspx/Pages/Home.aspx> |

| TITLE | Assessment requirements for FWPHAR3210 Conduct mechanical processor operations |
| --- | --- |
| Performance Evidence | |
| An individual demonstrating competency must satisfy all the elements, performance criteria and foundation skills of this unit. There must be evidence that, on at least one occasion, the individual has:   * planed, prepared and safely and effectively operated a mechanical processor to process trees mechanically, segregate and stack logs * followed work order for conducting mechanical processing * operated mechanical processor safely and effectively within equipment capabilities and limitations * adjusted operating techniques in response to site conditions * maintained log stacks, with consideration given to providing for anticipated stock levels, stock rotation requirements, size, segregation of lengths, species, grades * visually assessed delivered logs for characteristics including species type, diameter, length and grade and direct to additional locations for further processing and stacking * monitored trees for unexpected characteristics that may cause danger and referred to appropriate personnel * established communication with other personnel and monitored their movements to maintain safety on site * conducted pre and post operational checks, routine cleaning and operational servicing of equipment. | |

| Knowledge Evidence |
| --- |
| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * workplace requirements and site standards for carrying out mechanical processor operations * environmental protection requirements * operational procedures and checks including start-up and shut-down procedures * established communication channels and protocols to maintain safety * processes for managing risks and hazards associated with mechanical processing operations * operating and maintaining machine, attachments and ancillary equipment, in line with manufacturer’s instructions * work health and safety requirements, fire protocols and emergency evacuation procedures |

| Assessment Conditions |
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| Assessment of this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in a log landing site or an environment that accurately represents workplace conditions * resources, equipment and materials: * wheeled or tracked mechanical processor * personal protective equipment * specifications: * access to organisational policies and procedure for operating a mechanical processor * access to site emergency procedure * log sheets for recording measurement and operation * relationships (internal and/or external): * interactions with team member(s) / supervisors or realistic scenarios or roleplays for the purposes of communicating information   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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