

<b>Title</b>	<b>Wash wood chips for further processing</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of a chip washer; operate a chip washer; and monitor and control the performance of a chip washer.
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<b>Classification</b>	Wood Fibre Manufacturing > Pulp Making
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<b>Available grade</b>	Achieved
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### Guidance Information

#### 1 Legislation and references

Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

- Hazardous Substances and New Organisms Act 1996;
- Health and Safety at Work Act 2015;
- Resource Management Act 1991;
- Health and Safety at Work (Major Hazard Facilities) Regulations 2016.

#### 2 Definitions

*Chip washer* refers to the plant or equipment used to wash wood chips and treat the water and solids that result from chip washing.

*Operating parameters* refer to the boundary conditions in which the operations are carried out in operating a chip washer.

*Operating procedures* refer to the process(es) that are worked through, e.g. standard operating procedure (SOP) operating a chip washer.

*Worksite documentation* refers to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace, and are consistent with manufacturer's requirements. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the pulp making industry.

#### 3 Assessment information

Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, worksite documentation and legislative requirements. This includes the knowledge and use of suitable tools and equipment.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of a chip washer.

#### Performance criteria

- 1.1 Principle and purpose of a chip washer are explained in terms of grit and contaminant removal and reduction of wear on equipment.
- 1.2 Operating components and process controls of a chip washer are described and their purpose is explained.
- Range operating parameters may include but are not limited to – transport system, washer, drain system, pumps, scrap metal trap.
- 1.3 Operating parameters, capability, and capacity of a chip washer are explained.
- 1.4 Hazards associated with a chip washer are identified and actions to be taken to minimise or eliminate the hazards are explained.
- Range hazards may include but are not limited to – mechanical movement, electricity, water, heat.
- 1.5 Roles and responsibilities of a chip washer operator are explained.

### Outcome 2

Operate a chip washer.

#### Performance criteria

- 2.1 Safe work practices associated with chip washer are demonstrated.
- Range practices may include but are not limited to – isolation procedures, lock outs or tag-outs, emergency stops, machine guarding, wearing appropriate safety equipment.
- 2.2 Chip washer is set up, started up, operated, and shut down.
- 2.3 Operating parameters are set and adjusted to enable production requirements to be achieved.
- Range operating parameters – water temperature, chip throughput, water flow and recycle;  
production requirements – product quality, production rate.
- 2.4 Essential care and housekeeping requirements are carried out.

**Outcome 3**

Monitor and control the performance of a chip washer.

**Performance criteria**

3.1 Feedback information for product quality, plant performance and process is monitored and interpreted with required adjustments to control parameters to meet specified requirements.

Range information may include but is not limited to – water temperature, chip throughput, waterflow.

3.2 Operating and equipment faults and malfunctions are identified, and relevant corrective actions are taken.

Range equipment faults and malfunctions may include but are not limited to – mechanical, electrical, instrumentation, distributed control system.

3.3 Contaminants of the output chips are monitored to meet specified requirements.

3.4 Production rate is regulated to match downstream plant demand.

<b>Planned review date</b>	31 December 2028
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	22 February 1995	31 December 2020
Revision	2	27 January 1997	31 December 2020
Review	3	25 February 1999	31 December 2020
Review	4	18 December 2006	31 December 2020
Review	5	28 May 2020	31 December 2020
Rollover	6	10 December 2020	31 December 2022
Reinstatement	7	30 November 2023	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0173
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council [qualifications@hangaarorau.nz](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.