

| | | | |
|--------------|-----------------------|----------------|----------|
| Title | Wash wood pulp | | |
| Level | 4 | Credits | 5 |

| | |
|----------------|--|
| Purpose | People credited with this unit standard are able to: demonstrate knowledge of pulp washing; operate a pulp washer; and monitor and control the performance of a pulp washer. |
|----------------|--|

| | |
|-----------------------|--|
| Classification | Wood Fibre Manufacturing > Pulp Making |
|-----------------------|--|

| | |
|------------------------|----------|
| Available grade | Achieved |
|------------------------|----------|

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 Definition

Worksite documentation refer 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, sustainability, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the pulp making industry.

3 Range

Pulp washers may include – drum washer, pressure washer;
Evidence of one is required.

4. 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.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of pulp washing.

Performance criteria

- 1.1 Purpose and function of pulp washing in the pulp making process are explained.
- 1.2 Operation of a washer is explained.
- 1.3 Operating components of a washer are described and their purpose and operation are explained.
- Range pulp washer components may include but are not limited to – distributed control systems, screens, drainage arms, scraper arms, hydraulic systems, shower nozzles, pulp launder, filtrate header, scraper drive, wash water inlet; drum and pressure washer components may include but are not limited to – distributed control system, screens, rolls, vacuum system, filtrate system, hydraulic system.
- 1.4 Hazards associated with a pulp 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 – pressure, heat, water, moving plant.
- 1.5 Emergency shutdown procedures for a washer are explained.
- 1.6 Consequences of non-compliance with worksite operating procedures are explained.
- 1.7 Roles and responsibilities of the pulp washer operator are explained.

Outcome 2

Operate a pulp washer.

Performance criteria

- 2.1 Safe work practices associated with operating a pulp 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 Pulp 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 may include but are not limited to – wash water and pulp flow rates, throughput, hydraulic cycle times; production requirements – residual chemical concentration, output consistency, production rate.

2.4 Essential care and housekeeping requirements for pulp washer are carried out.

Outcome 3

Monitor and control the performance of a pulp washer.

Performance criteria

3.1 Performance of a pulp washer is monitored and parameters are controlled in accordance with operating parameters.

Range control parameters may include but are not limited to – consistency, throughput, hydraulic cycle times; performance parameters – residual chemical concentration, output consistency.

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

Range operating faults and malfunctions may include but are not limited to – plugged lines, dilution problems, overflows, screen damage; equipment faults and malfunctions – mechanical, electrical, hydraulic, instrumentation, distributed control system.

3.3 Chemical residuals and consistency of output product are monitored to meet specified requirements.

3.4 Production rate is regulated and adjusted to meet downstream operation requirements.

3.5 Production, maintenance, and quality records are completed.

| | |
|--------------------------------|---|
| Replacement information | This unit standard replaced unit standard 3556 and unit standard 15828. |
|--------------------------------|---|

| | |
|----------------------------|------------------|
| Planned review date | 31 December 2028 |
|----------------------------|------------------|

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|------------------|--------------------------|
| Registration | 1 | 18 December 2006 | 31 December 2024 |
| Review | 2 | 24 October 2014 | 31 December 2025 |
| Review | 3 | 30 November 2023 | N/A |

Consent and Moderation Requirements (CMR) reference

0173

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 if you wish to suggest changes to the content of this unit standard.