

Title	Clean furnish		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of furnish cleaning; operate a furnish cleaning system; and monitor and control the performance of a furnish cleaning system.
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Classification	Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills
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Available grade	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

Contraries refers to any plastic and organic debris that may be present in a furnish.

Furnish refers to the fibrous product constituents of pulp and paper (including recycled papers, pulps, and broke) blended in stock preparation to meet the requirements of various final pulp or paper product grades.

Operating parameters refer to the boundary conditions in which the operations are carried out in furnish cleaning.

Operating procedures refer to the process(es) that are worked through, e.g. standard operating procedure (SOP) in furnish cleaning.

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, sustainability, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the pulp and paper 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.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of furnish cleaning.

Performance criteria

- 1.1 Purpose of furnish cleaning in the candidate's worksite is explained.
- 1.2 Components of a furnish cleaning system are described and their role is explained.

Range components may include but are not limited to – centricleaners, uniflow cleaners, reject systems, process controls.
- 1.3 Operating principles of the furnish cleaning system are explained in terms of cascade systems, pressure differential, contraries removal, and control of rejects rate.
- 1.4 Operating parameters and capacity of the furnish cleaning system are explained.
- 1.5 Hazards associated with furnish cleaning systems 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, electricity, water.
- 1.6 Consequences of non-conformance of furnish cleaning with worksite operating procedures are explained.
- 1.7 Roles and responsibilities of the furnish cleaner operator are explained.

Outcome 2

Operate a furnish cleaning system.

Performance criteria

- 2.1 Safe work practices associated with operating a furnish cleaning system 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 Furnish cleaning system 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 – flows, pressures, number of cleaner stages, traps;
production requirements – shive content, dirt and contraries content, production rate.
- 2.4 Control of rejects to effluent system is carried out.
- 2.5 Essential care and housekeeping requirements are carried out.

Outcome 3

Monitor and control the performance of a furnish cleaning system.

Performance criteria

- 3.1 Performance of a furnish cleaning system is monitored and parameters are controlled in accordance with operating parameters.

Range performance parameters may include but are not limited to – shive content, dirt and contraries content.
- 3.2 Operating and equipment faults and malfunctions are identified, and relevant corrective actions are taken.
- 3.3 Cleanliness of output furnish is monitored to meet the specified requirements.

Planned review date	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 2024
Revision	2	27 January 1997	31 December 2024
Review	3	25 February 1999	31 December 2024
Review	4	18 December 2006	31 December 2024
Review	5	24 October 2014	31 December 2025
Review	6	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.