

<b>Title</b>	<b>Operate a drum filter to filter lime mud for burnt lime manufacture in a pulp or paper plant</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of drum filters; operate a drum filter; and monitor and control the performance of a drum filter.
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<b>Classification</b>	Wood Fibre Manufacturing > Pulp and Paper - Chemical Plants
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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

*Operating parameters* refer to the boundary conditions in which the operations are carried out when operating drum filters.

*Operating procedures* refer to the process(es) that are worked through, e.g. standard operating procedure (SOP) when operating drum filters.

*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.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of drum filters.

#### Performance criteria

- 1.1 The operation of drum filters is explained.
- 1.2 Operating components of drum filters are described, and their purpose is explained.
- Range operating components may include but are not limited to – continuous pre-coat renewal system, vat, vacuum breaker, showers, dump valve, drums, fabrics, bands, doctor blade, shredder, dilution system, pumps, tanks.
- 1.3 Hazards associated with drum filters are identified and actions to be taken to minimise, or eliminate the hazard are described.
- Range hazards may include but are not limited to – caustic burns, mud spillages, moving plant.
- 1.4 The consequences of non-conformance with worksite operating procedures are described.
- 1.5 Roles and responsibilities of the lime mud filter operator are described.

### Outcome 2

Operate a drum filter.

#### Performance criteria

- 2.1 Safe work practices associated with operating a lime mud filter are identified and used.
- 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 Drum filter 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 – drum filter speed, wash water flow, vat level, mud density, mud drying agent;  
production requirements may include but are not limited to – mud dryness, soda content.

2.4 Essential care and housekeeping requirements for the lime kiln are carried out.

**Outcome 3**

Monitor and control the performance of a drum filter.

**Performance criteria**

3.1 Filters are monitored and parameters are controlled in accordance with operating parameters.

Range control parameters may include but are not limited to – drum filter speed, wash water flow, mud density;  
process parameters may include but are not limited to – mud dryness, soda content, production rate.

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 – electrical, mechanical, hydraulic, instrumentation, distributed control system.

3.3 Production, maintenance, and quality records are completed.

<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 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

<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>.

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### 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.