

40426 Explain non-destructive testing (NDT) principles and applications for passenger ropeways

Kaupae Level	4
Whiwhinga Credit	5
Whāinga Purpose	<p>This skill standard is designed to provide people with knowledge of NDT principles and their applications in passenger ropeways.</p> <p>This skill standard may be used in programmes leading to qualifications and micro-credentials at Level 3 and above in passenger ropeway systems and maintenance.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Explain the principles and application of NDT for passenger ropeways.	a. Explain the principles of NDT and applications ensuring the safety and integrity of passenger ropeways.
	b. Explain the key factors that influence the selection of NDT applications for passenger ropeways.
2. Explain regulatory and compliance requirements for NDT for passenger ropeways .	a. Identify NDT required for passenger ropeway components in accordance with regulatory, compliance requirements and manufacturers' specifications.
	b. Explain the factors impacting NDT.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications

The assessment activities may include case studies, simulated inspections, and effective communication of NDT findings, demonstrating an understanding of NDT principles and their application in ensuring the integrity and safety of passenger ropeways.

NDT for passenger ropeways includes – visual inspection, magnetic particle testing, dye penetration testing, and magnetic rope testing. Where applicable, candidates may also be assessed on testing including oil and grease sampling, vibration analysis, thermographic, ultrasonic testing, X-ray, auditory testing.

Factors impacting NDT such as – components' lifecycle, operational conditions, and usage patterns, in accordance with regulatory requirements, industry standards, and manufacturer specifications.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

N/A.

Rauemi | Resources

Legislation, regulations and/or industry standards:

- Health & Safety at Work Act 2015
<https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html>.
- Pressure Equipment, Cranes and Passenger Ropeways Regulations 1999 (PECPR)
<https://www.legislation.govt.nz/regulation/public/1999/0128/latest/DLM284452.html>.
- NZS 8635:2018 Passenger ropeways and passenger conveyors, available at
<https://www.standards.govt.nz/shop/nzs-86352018>.
- Lift and Equipment Code of Practice.
- Building Warrant of Fitness.
- Fire detection systems.
- Manufacturers' specifications.
- Workplace operation procedures.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology>Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0013

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	30 January 2025	NA
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at qualifications@hangaarorau.nz if you wish to suggest changes to the content of this skill standard.