

Title	Demonstrate knowledge of telecommunications transmission installations		
Level	3	Credits	10

Purpose	<p>This unit standard is intended for people who require basic knowledge of telecommunications transmission networks.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – explain transmission installation requirements – explain electrical hazards when installing transmission equipment – describe site and equipment alarm monitoring and reporting systems.
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Classification	Telecommunications > Telecommunications - Service Delivery
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Available grade	Achieved
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Guidance Information

- Learning and assessment within this unit standard must be carried out in accordance with the following:
 - Building Regulations 1992
 - Electricity Act 1992
 - Health and Safety at Work Act 2015
 - Privacy Act 2020
 - Resource Management Act 1991
 - Telecommunications Act 2001
 - and all subsequent amendments, available from <http://legislation.govt.nz/>.
 - Best practice guidelines for working at height in New Zealand, available from www.worksafe.govt.nz
 - New Zealand Telecommunications Forum Inc., Customer Complaints Code, available from <https://www.tcf.org.nz/industry/resources/publications/industry-standards-guides/>
 - New Zealand Electrical Codes of Practice, available from www.worksafe.govt.nz.
- Definition

Basic knowledge refers to some operational and theoretical knowledge of the subject matter to interpret available information.

Outcomes and performance criteria

Outcome 1

Explain transmission equipment installation requirements.

Performance criteria

- 1.1 Legislation for the telecommunications industry is explained in terms of the impact on transmission equipment installation.
- Range Acts, Regulations, industry standards, Codes of Practice.
- 1.2 Permits and company procedures that impact on transmission equipment installations are explained in terms of compliance.
- 1.3 Typical power supply systems are explained in terms of battery backup and emergency generators.
- 1.4 Limits for work and registration requirements as defined by the Electricity Act 1992 are explained in terms of Electrical Appliance Serviceperson Registration (EAS) and Electrical Service Technician Registration (EST).
- 1.5 Security access and fire protection system procedures are explained in term of their purpose and function.
- 1.6 The purpose and operation of seismic infrastructure is explained in relation to equipment rooms.

Outcome 2

Explain electrical hazards when installing transmission equipment.

Performance criteria

- 2.1 Hazards associated with Battery Banks and extra low voltage (ELV) power systems are explained in terms of actions to eliminate them.
- Range short circuits, capacity, hydrogen gas, battery acid, flashover, fire.
- 2.2 Hazards associated with Fibre Optic Systems and fibre optic light sources are explained in terms of actions to eliminate them.
- Range skin and eyes, shards, ingestion.

Outcome 3

Describe site and equipment alarm monitoring and reporting systems.

Performance criteria

- 3.1 Types of alarm monitoring and reporting systems are described in terms of their use in telecommunications.
- 3.2 Alarm monitoring and reporting systems are described in terms of collecting and transmitting to a central monitoring location.
- 3.3 Alarm monitoring and reporting systems from simple roadside structures to large building infrastructure are described in terms of how they ensure site security and staff safety.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 October 2019	N/A
Rollover and Revision	2	25 January 2024	N/A

Consent and Moderation Requirements (CMR) reference	0101
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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 Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.