

Title	Demonstrate knowledge of safety considerations when installing radio frequency equipment and cabling systems		
Level	3	Credits	10

Purpose	People credited with this unit standard are able to demonstrate knowledge of safety considerations when installing radio frequency equipment and cabling systems.
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Classification	Telecommunications > Telecommunications - Service Delivery
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Available grade	Achieved
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Guidance Information

- Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant industry and legislative requirements. For the purpose of this unit standard, assessment can take place in access network telecommunication work environments.
- Legislation and references relevant to this unit standard include: Electricity Act 1992; Health and Safety at Work Act 2015; Resource Management Act 1991; Telecommunications Act 2001; Building Act 2004; *Best practice guidelines for working at height in New Zealand* July 2019; and any subsequent amendments.
- Definitions
Industry requirements may refer to but are not limited to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, and procedural documents.
Transmission refers to the transfer of data over a communications channel. This may include radio, fibre or copper media as well as aggregation or multiplexing of data for more efficient transfer over the media.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of safety considerations when installing radio frequency (RF) equipment.

Performance criteria

- 1.1 The New Zealand permissible public and occupational electro-magnetic radiation (EMR) exposure limits are explained for both RF workers and the public.
- 1.2 The potential biological effects of overexposure to EMR are explained.
- 1.3 Strategies for identifying, eliminating, minimising, or isolating on-site EMR hazards are explained in terms of the limitations of each method.

Range personal monitoring devices, documentation, signage, EMR measuring devices, calculations, co-location records.
- 1.4 Methods of reporting EMR hazards are described.
- 1.5 Risk reduction strategies for working at heights are explained in accordance with best practice guidelines for working at height in New Zealand.
- 1.6 The dangers of, and strategies for harm reduction, when working near towers or antennae with ice build-up are explained.
- 1.7 Hazards associated with equipment or cable in confined spaces are identified and explained in terms of risk reduction strategies.
- 1.8 Tower and unused feeder earthing are explained in terms of personal safety considerations.

Outcome 2

Demonstrate knowledge of safety considerations when installing cabling systems.

Performance criteria

- 2.1 Hazards for fibre optical shards are identified and risk reduction strategies are explained.
- 2.2 Hazards associated with lasers and light sources are explained.

Range connectors, macrobends, damaged fibres, inspection microscopes.
- 2.3 Hazards are identified, and risk reduction strategies are explained for the termination of copper cables.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 March 2021	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 Connexis - Infrastructure Industry Training Organisation
qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.