

<b>Title</b>	<b>Work safely with electrical equipment</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>1</b>

<b>Purpose</b>	<p>This unit standard is for people who use electrical equipment and tools in a domestic or industrial environment, and who need to recognise potentially dangerous equipment and situations, and know how to respond to them.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– inspect electrical equipment for safe use</li> <li>– inspect and use flexible cords and extension sets</li> <li>– use electrical isolation and protective devices</li> <li>– describe potentially harmful situations related to the use of electrical equipment.</li> </ul>
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<b>Classification</b>	Electrical Engineering > Core Electrical
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 This unit standard has been developed for learning and assessment on-job or off-job with suitable simulation.
- 2 Achievement of this unit standard does not by itself imply that trainees may legally perform prescribed electrical work in their own right. Until they are registered and licensed under the Electricity Act 1992, trainees are assisting, and must work under the supervision of a Supervisor of Electrical Work when carrying out prescribed electrical work. If the prescribed electrical work in question is carried out for reward, the Supervisor of Electrical Work must hold a valid practising licence.
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References

Electricity Act 1992

Electricity (Safety) Regulations 2010

Health and Safety at Work Act 2015, and associated regulations

New Zealand Electrical Codes of Practice available at <https://www.worksafe.govt.nz/laws-and-regulations/standards/electricity-standards-and-codes-of-practice/>

AS/NZS 3000 (version as cited in the Electricity (Safety) Regulations), *Electrical installations (known as the Australian/New Zealand Wiring Rules)*, including Amendment 1

and all subsequent amendments and replacements.

**4 Definition**

*Industry practice* – those practices that competent practitioners within the industry recognise as current industry best practice.

- 5 The terms *flexible cord*, *plug*, *cord extension socket*, and *cord extension set* should be interpreted as in Worksafe website or AS/NZS 3000.

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**Outcomes and performance criteria****Outcome 1**

Inspect electrical equipment for safe use.

Range power tools, home and office appliances, trade tools.

**Performance criteria**

- 1.1 Loose, damaged, or missing parts are inspected.

Range may include but is not limited to – securing screws, handles, guards, controls, cracked bodies, handgrips, damaged chucks, blade clamps, tool holders, key-ways.

- 1.2 Abnormal operating conditions are inspected.

Range non-performance of design function; noises, heat, smell, overloads.

- 1.3 Defective equipment is labelled and put aside for repair by a competent person.

**Outcome 2**

Inspect and use flexible cords and extension sets.

**Performance criteria**

- 2.1 Any damaged cords are inspected.

Range may include but is not limited to – cuts, nicks, abrasions, tightly twisted, knotted, flattened, compressed, exposed wires.

- 2.2 Any cords not properly attached to cord clamps are inspected.

- 2.3 Any damaged or incomplete plugs and extension sockets are inspected.

- 2.4 Any defective cords and cord extension sets are labelled and removed from service.

- 2.5 Cords and cord extension sets are neatly coiled while not in use, to prevent damage.

- 2.6 Cords and cord extension sets are uncoiled while in use to prevent overheating.

### Outcome 3

Use electrical isolation and protective devices.

#### Performance criteria

- 3.1 Electrical isolation and protective devices are identified.
- Range main switch, isolator, circuit breaker, fuse, fixed and portable residual current devices (RCDs).
- 3.2 Main switch and isolators are operated according to industry practice.
- 3.3 Circuit breakers are operated and re-set according to industry practice.
- 3.4 Residual current devices are used, tested, and re-set according to manufacturer's instructions and industry practice.
- Range testing refers to built-in tests only.
- 3.5 Cartridge fuses are identified and replaced according to industry practice.
- 3.6 Rewirable fuses are identified and repaired according to industry practice.

### Outcome 4

Describe potentially harmful situations related to the use of electrical equipment.

#### Performance criteria

- 4.1 Potentially harmful situations and the possible outcomes are identified and described.
- Range situations – damp, water, cords lying where they could be damaged, badly secured or placed fittings and fixtures, malfunctioning equipment, overloads.
- 4.2 Actions to take in response to harmful situations to prevent accidents are described.
- Range actions to take – warn other persons, isolate circuit, remove potential hazard, report hazard to responsible person, seek assistance; repair damage where appropriate, label defective equipment.

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<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	23 April 1996	31 December 2013
Review	2	10 February 1999	31 December 2013
Revision	3	3 April 2001	31 December 2013
Review	4	26 May 2005	31 December 2025
Rollover and Revision	5	15 March 2012	31 December 2025
Revision	6	15 January 2014	31 December 2025
Rollover and Revision	7	28 January 2021	31 December 2025
Review	8	28 March 2024	N/A

**Consent and Moderation Requirements (CMR) reference**

0003

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](mailto:qualifications@WaihangaAraRau.nz) if you wish to suggest changes to the content of this unit standard.