

<b>Title</b>	<b>Demonstrate and apply knowledge of safe practices in an electrical workplace</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	<p>This unit standard covers general safety practices for workers in the electrical and related industries.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– demonstrate knowledge of evacuation procedures;</li> <li>– identify, communicate, and report dangerous situations;</li> <li>– demonstrate knowledge of and use safety clothing and equipment;</li> <li>– demonstrate knowledge of fire prevention and control procedures;</li> <li>– maintain correct posture to avoid injury;</li> <li>– demonstrate and apply knowledge of hazardous substances and associated procedures;</li> <li>– use ladders safely;</li> <li>– employ the safety tag system in accordance with safe working practice; and</li> <li>– demonstrate knowledge of the responsibilities for providing, maintaining, and using associated equipment for safety in electrical work.</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.
- 2 This unit standard and unit standards 5932, 15848, 15855, 29465, and 29480 together meet the assessment requirements of ERAC CEPC 10.  
 This unit standard and unit standard 17602, 29465, and 29478 together meet the assessment requirements of ERAC CEPC 42.  
 This unit standard and unit standards 17602, 29465, and 29468 together meet the assessment requirements of ERAC CEPC43.  
 This unit standard and unit standards 17602 and 29465 together meet the assessment requirements of ERAC CEPC 44.  
 This unit standard and unit standards 29421, 29465, and 29479 together meet the assessment requirements of ERAC CEPC 45.
- 3 This unit standard does not cover the special safety practices associated with high voltages or work on power lines.

#### 4 Definitions

*Associated equipment* – as defined in the Electricity (Safety) Regulations.

*CEPC* – Critical Essential Performance Capabilities.

*EPC* – Essential Performance Capabilities.

*ERAC* – Electrical Regulatory Authorities Council.

*EWRB* – Electrical Workers Registration Board.

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

*Safe and sound practice* – as it relates to the installation of electrical equipment is defined in AS/NZS 3000:2007, *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*.

#### 5 Range

- a Candidates may refer to current legislation and Standards during assessment.
- b Demonstration of safe working practices and installation in accordance with *safe and sound practice* are essential components of assessment of this unit standard.
- c All activities and evidence presented for all outcomes and performance criteria in this unit standard must be in accordance with:
  - i legislation;
  - ii policies and procedures;
  - iii ethical codes;
  - iv Standards – may include but are not limited to those listed in Schedule 2 of the Electricity (Safety) Regulations 2010;
  - v applicable site, enterprise, and industry practice; and,
  - vi where appropriate, manufacturers' instructions, specifications, and data sheets.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of evacuation procedures.

#### Performance criteria

- 1.1 Identify exit points, escape routes, and assembly points and ensure they are kept clear at all times.
- 1.2 Explain and follow evacuation procedures in accordance with company requirements.

#### Outcome 2

Identify, communicate, and report dangerous situations.

**Performance criteria**

- 2.1 Identify dangerous situations in accordance with the Health and Safety at Work Act 2015.
- Range may include but is not limited to – damaged cords and cables, unguarded machines, broken equipment, tools and accessories, signs of overheating, corrosion, untidy conditions, accumulated rubbish, oil spills, trailing cords and cables; evidence of three is required.
- 2.2 Communicate and report dangerous situations in accordance with company requirements.
- 2.3 Identify work situations in which at least two competent persons are required for safety reasons in accordance with safe working practice and explain the requirements of each person.

**Outcome 3**

Demonstrate knowledge of and use safety clothing and equipment.

**Performance criteria**

- 3.1 Identify, wear, and use approved items of safety clothing and equipment in accordance with the Health and Safety at Work Act 2015 and established company requirements and explain the reasons.
- Range may include but is not limited to – safety shoes, overalls, eye protection, safety helmets, rubber gloves, rubber mats, safety harness; evidence of three is required.
- 3.2 Ensure metallic items and synthetics are not worn while working near live equipment or conductors and explain the reasons.
- 3.3 Ensure hair is contained and that loose clothing is not worn when working on machinery.

**Outcome 4**

Demonstrate and apply knowledge of fire prevention and control procedures.

**Performance criteria**

- 4.1 Identify possible causes of fire in own workplace.
- 4.2 Describe company fire-fighting and evacuation procedures in terms of own responsibility.

- 4.3 Identify fire extinguishers suitable for different types of fire and explain the reasons for the differences and their operation in terms of the different fuel types.
- 4.4 Identify and locate fire extinguishers suitable for different types of fire in the work area.

### **Outcome 5**

Maintain correct posture to avoid injury.

#### **Performance criteria**

- 5.1 Maintain correct posture when moving loads and explain reasons.
- 5.2 Arrange work area to minimise accidents and injury.
- Range may include but is not limited to – table and bench height, clear floor areas, headroom, seating, operating or work tables, tidy workmanship.

### **Outcome 6**

Demonstrate knowledge of hazardous substances and associated procedures.

#### **Performance criteria**

- 6.1 Identify hazardous substances at the work site.
- 6.2 Describe company requirements for reporting, removing, handling, storing, and disposing of hazardous substances.
- Range hazardous substances may include but is not limited to – sodium and mercury from metal vapour lamps, polychlorinated biphenyls (PCB) from older transformers and capacitors, any other hazardous substances present at own work site; evidence of three is required.
- 6.3 Describe procedures to deal with spills of hazardous substances.
- 6.4 Identify symbols warning of the presence of radiation and lasers.
- 6.5 Explain the dangers and safeguards associated with working in the presence of radiation and lasers.

### **Outcome 7**

Use ladders safely.

Range step ladder, single ladder, extension ladder, trestle ladder.

**Performance criteria**

- 7.1 Select move, erect, and use ladders in accordance with safe working practice, to meet job requirements.

Range includes but is not limited to – suitable support, ability to reach work point, sufficient space for placement, four-to-one rule, never use metal or wire-reinforced ladders near live equipment, never stand on top two steps of step ladder, use of assistant at base.

- 7.2 List potential ladder defects in accordance with safe working practice and explain how these defects can create a dangerous situation.

Range defects may include but are not limited to – cracks, splinters, loose hinges, damage, missing parts, deterioration, operation of working parts, bending, missing or loose bolts and/or rivets; evidence of five is required.

- 7.3 Maintain ladders in a safe condition.

- 7.4 Handle and store ladders in a manner that prevents damage and accidents.

**Outcome 8**

Employ the safety tag system in accordance with safe working practice.

**Performance criteria**

- 8.1 Identify different types of tags and explain their purpose and use.

Range danger, warning, beware, caution tags; out-of-service tags; hold cards; in-house tags used for the same effects.

- 8.2 Employ the safety tag system.

- 8.3 Explain and use the multiple-trade/multiple-tag system.

**Outcome 9**

Demonstrate knowledge of the responsibilities for providing, maintaining, and using associated equipment for safety in electrical work.

**Performance criteria**

- 9.1 Identify associated equipment to be provided and maintained by the employer.

- 9.2 Identify the person responsible within the company for testing and inspection of associated equipment as required by the Electricity (Safety) Regulations.

- 9.3 Explain employees' responsibilities relating to the use of associated equipment in accordance with the Electricity (Safety) Regulations.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	21 July 2016	31 December 2027
Revision	2	16 March 2017	31 December 2027
Review	3	25 May 2023	31 December 2027

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

0003

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.