

<b>Title</b>	<b>Demonstrate knowledge of the use of electrical reticulation plant and equipment in extractive operations</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>7</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of the use of electrical reticulation plant and equipment in extractive operations.
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<b>Classification</b>	Extractive Industries > Extractive Industries Management
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Performance of the outcomes of this unit standard must comply with the following:  
Health and Safety at Work Act 2015 (HSW);  
Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;  
Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016;  
Health and Safety at Work (Worker Engagement, Participation, and Representation) Regulations 2016;  
approved codes of practice issued pursuant to the HSW Act.
- 2 Any new, amended, or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 3 **Definitions**  
*Company procedures* mean the documented methods for performing work activities and include health and safety, operational, environmental, and quality management requirements. They may refer to legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.  
*Industry best practice* may be documented in management plans, control plans, company procedures, managers' rules, occupational health and safety policy, industry guidelines, codes of practice, manufacturers' instructions, and safe working and/or job procedures (or equivalent).
- 4 This unit standard is intended for, but is not limited to, workplace assessment. The range statements relate to company specific equipment, procedures, and processes.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of the use of electrical reticulation plant and equipment in extractive operations.

### Performance criteria

- 1.1 The components and operation of electrical reticulation systems are described in terms of their use in extractive operations.
- Range includes for all extractive operations – instruments, electric motors, cables, joint boxes and connectors, electrical lighting, communication and signaling systems, circuit breakers, switchgear, transformers, load centres, power circuit layout, sub stations, earthing systems;  
includes for underground coal mines, where this is the workplace context – flameproof enclosures, intrinsically safe equipment.
- 1.2 The safety and protection of electrical systems in reticulation plant and equipment is described in accordance with legislation and industry best practice.
- Range includes for all extractive operations – isolation and lockout procedures, earth leakage systems, overload and short circuit trips, sensors, interlocks, resetting, basic maintenance requirements and reasons for them;  
includes for underground coal mines, where this is the workplace context – explosion risk zones (ERZs).
- 1.3 Electrical circuit and equipment measuring and monitoring instruments are described in terms of their use at extractive sites.
- Range includes but is not limited to for all extractive operations – multimeters, voltmeters, ohmmeters, electronic instruments;  
includes for underground coal mines, where this is the workplace context – intrinsically safe, flameproof, ERZs.

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<b>Planned review date</b>	31 December 2022
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	27 June 2005	31 December 2017
Rollover and Revision	2	19 March 2010	31 December 2017
Review	3	18 June 2015	31 December 2019
Review	4	1 March 2018	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0114
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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 MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.