

## Field      Engineering and Technology

### Review of *Electrical Engineering* unit standards

Subfield	Domain	ID
Electrical Engineering	Core Electrical	5907, 5909, 5911, 6626, 15846, 15847, 15849, 15853, 15861, 15864, 30657, 30658
	Electrical Standards and Statutes	15860, 25638, 25640, 27349, 27351, 27353, 29466, 29467, 29749, 29753, 29754

Waihanga Ara Rau Construction and Infrastructure Workforce Development Council has completed the review of the unit standards listed above.

**Date new versions published**

**March 2024**

**Planned review date**

**December 2028**

### Summary

This review commenced in March 2023. Consultation with industry representatives and providers occurred via email and online meetings during 2023.

The two sector regulators, WorkSafe New Zealand, and the Electrical Workers Registration Board (EWRB), have agreed to the updated referencing of the relevant AS/NZS 3000 in the unit standards.

### Main changes

- The AS/NZS 3000 in the unit standards will be written as “AS/NZS 3000 (version as cited in the Electricity (Safety) Regulations), *Electrical Installations (known as the Australian/New Zealand Wiring Rules)*” to address that AS/NZS 3000:2018 (current version) is not yet cited in the Electricity (Safety) Regulations 2010.
- Guidance information was updated to reflect current legislation and standards.
- The standard setting body was changed to Waihanga Ara Rau Construction and Infrastructure Workforce Development Council.
- Outcome 3 of unit standard 5907 was removed as it did not align with the overall intention of the standard.
- The prerequisite information was removed from unit standards 25638 and 29749.
- Minor additions were made to the title of unit standards 15853, 15860, and 15861.

**The last date for assessment of superseded versions of Category B unit standards is 31 December 2025**

### Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

<b>Key to review category</b>	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

Engineering and Technology > Electrical Engineering > Core Electrical

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
5907	Work safely with electrical equipment	2	1	<b>B</b>
5909	Explain basic atomic principles as applied to the electrotechnology industry	1	1	<b>B</b>
5911	Explain basic magnetism and electromagnetism as applied to the electrotechnology industry	1	1	<b>B</b>
6626	Demonstrate knowledge of electrical and electronic components	2	3	<b>B</b>
15846	Demonstrate knowledge of capacitors and semiconductor diodes	2	3	<b>B</b>
15847	Demonstrate knowledge of mathematics and mechanics for electrical trades	2	4	<b>B</b>
15849	Perform manual soldering and de-soldering procedures for electrotechnology work	2	2	<b>B</b>
15853	Demonstrate knowledge of alternating current (a.c.) theory <b>Demonstrate knowledge of alternating current (AC) theory</b>	4	7	<b>B</b>
15861	Demonstrate knowledge of direct current (d.c.) power supplies <b>Demonstrate knowledge of direct current (DC) power supplies</b>	3	3	<b>B</b>
15864	Demonstrate knowledge of semiconductor power devices	4	4	<b>B</b>
30657	Isolate low-voltage electrical subcircuits and perform basic checks and tests to confirm isolation	2	1	<b>B</b>
30658	Demonstrate knowledge of fundamental electricity safety in the workplace	2	2	<b>B</b>

Engineering and Technology > Electrical Engineering > Electrical Standards and Statutes

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
15860	Demonstrate knowledge of legislation and standards governing the work of electricians <b>Demonstrate knowledge of legislation and Standards governing the work of electricians</b>	3	2	<b>B</b>
25638	Demonstrate knowledge of inspection and certification of electrical work	5	8	<b>B</b>
25640	Inspect and certify electrical work	5	6	<b>B</b>
27349	Demonstrate knowledge of theory and legislation for registration of electrical service technicians	3	3	<b>B</b>
27351	Demonstrate knowledge of theory and legislation for registration of electrical appliance servicepersons	3	3	<b>B</b>
27353	Demonstrate knowledge of theory for registration of electrical installers	3	3	<b>B</b>

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
29466	Demonstrate knowledge of legislation and Standards governing electrical workers	3	2	<b>B</b>
29467	Demonstrate knowledge of the electrical industry ethical work practices	3	2	<b>B</b>
29749	Demonstrate and apply knowledge of theory and practice for registration of electrical workers (stage 1)	4	2	<b>B</b>
29753	Demonstrate and apply knowledge of theory and practice for registration of electrical workers (stage 2)	4	2	<b>B</b>
29754	Demonstrate and apply knowledge of theory and practice for registration of electrical workers (stage 3)	4	3	<b>B</b>