

Title	Carry out an inspection of substation equipment		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to carry out an inspection of substation equipment.
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Classification	Electricity Supply > Electricity Supply - Power System Maintenance
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Available grade	Achieved
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Prerequisites	Unit 14287, <i>Use and maintain test instruments used in the high voltage electricity supply industry</i> , or demonstrate equivalent knowledge and skills.
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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 applicable legislative and industry requirements.
- Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of the Health and Safety at Work Act 2015; Electricity Act 1992; Electricity (Safety) Regulations 2010; and any subsequent amendments and replacements; Electricity supply industry codes of practice and documented enterprise procedures, including *Safety Manual – Electricity Industry* (SM-EI) (2015) Wellington: Electricity Engineers' Association, available at www.eea.co.nz.
- Definitions
AS/NZS refers to Australian/New Zealand Standard.
Asset owner refers to a participant who owns or operates assets used for generating or conveying electricity.
Checklists include AS/NZS 3017:2007 *Electrical Installations – Verification guidelines*; and AS/NZS 3019:2007 *Electrical Installations – Periodic verification* available at <https://shop.standards.govt.nz>.
Industry requirements include all asset owner requirements; manufacturers' specifications; and enterprise requirements which may include the documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.
- The range of this unit standard is limited to in-service visual inspections, from a safe situation, of equipment for safe operation. Inspections are normally applied at electricity supply substations.

Outcomes and performance criteria

Outcome 1

Carry out an inspection of substation equipment.

Range evidence of three inspections is required.

Performance criteria

1.1 Preparation for inspection is completed.

Range abnormal incidents in operational reports, operational status of substation equipment, checklist, entry permit.

1.2 Equipment being inspected is identified with the associated checklist.

1.3 The visual inspection of the substation equipment is completed in accordance with the checklist.

1.4 The visual inspection observations are analysed for servicing needs.

Range may include but is not limited to – corrosion signs, damage, signs of over-heating, incorrect indication, low oil levels, too high or low pressures, flash arc over damage, pollution productions, operation cyclo counter.

1.5 Inspection results are recorded and analysed to identify any features that will require maintenance.

1.6 Any items requiring urgent attention are reported to relevant authority.

1.7 Any requests for corrective action is documented.

Range equipment affected, the problem identified, assessment of defects, and timing of corrective action.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 April 1998	31 December 2012
Revision	2	11 February 2004	31 December 2012
Rollover and Revision	3	20 June 2008	31 December 2012
Review	4	21 July 2011	31 December 2022
Review	5	23 April 2020	N/A

Consent and Moderation Requirements (CMR) reference

0120

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.