

Title	Carry out insulating oil sampling and voltage breakdown tests		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to carry out insulating oil sampling and voltage breakdown tests.
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Classification	Electricity Supply > Electricity Supply - Testing
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Available grade	Achieved
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Guidance Information

- 1 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.
- 2 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; and any subsequent amendments and replacements; Electricity Act 1992; Electricity (Safety) Regulations 2010; 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.
- 3 Definitions
Asset owner refers to a participant who owns or operates assets used for generating or conveying electricity.
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.
- 4 Sampling may include but is not limited to – minimum oil volume, precleaning at sample point, discharge before sampling, flow rate into test vessel, sitting time, recorded temperature and relative humidity.

Outcomes and performance criteria

Outcome 1

Carry out insulating oil sampling and voltage breakdown tests.

Performance criteria

- 1.1 Equipment is prepared for sampling and testing.
- Range technical specifications and performance standard for oil, test procedure, sampling requirements, cleaning and drying equipment.
- 1.2 The oil sample is taken from the equipment in accordance with client or other accepted guidelines.
- 1.3 A basic voltage breakdown test is applied in a controlled way using client-approved test procedures.
- Range evidence of six procedures is required; may include but is not limited to – the rate of voltage increase by time, steady voltage period.
- 1.4 Test results are recorded, interpreted and analysed for compliance with the standard required.
- Range may include but is not limited to – reference to equipment manufacturer's requirements; client standards; international standards and previous test results recorded.
- 1.5 Documentation is completed, and results are reported within the required time-frame.

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	08 December 2011	31 December 2022
Review	5	23 April 2020	N/A

Consent and Moderation Requirements (CMR) reference	0120
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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 Connexis – Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.