



GUIDELINES FOR DELIVERY OF APPROVED COMPETENCE
PROGRAMMES FOR PERSONS WISHING TO UPLIFT
PRACTISING LICENSES
From 1 February 2012

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Registrar
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Introduction

These guidelines have been developed for conducting competence programmes which training providers can use either as their tuition course, or as a guide for the content within the Board's jurisdiction of any professional development programme that satisfy the prerequisite tuition and assessment requirements for the issue of Board practicing licenses.

All Board approved providers of competence programmes and professional development programmes must ensure the subject matter for each license group is as prescribed in Schedule 2 (a-e) of the gazette notice published 1 December 2011 or any subsequent guidelines published under the Rules of the Board.

The competence programme includes instruction in basic first aid and cardio-pulmonary resuscitation which must be offered as part of this course and /or be completed prior to attending the competence programme and is a prerequisite for obtaining a practicing license.

The prerequisite for any application by an individual, company or organisation wanting to become a Board approved competence programme provider is that the principal person is registered under the Electricity Act 1992 and the holder of a current practising license for the class of license of the competence programmes they are presenting.

First aid and cardio-pulmonary resuscitation providers are not eligible to be a Board approved competence programme provider, but are advised to link themselves to a Board approved competence programme provider.

The competence programme satisfies the requirements of the Rules of the Board (ROB) refer Board's gazette notice December 2011 and to the Electricity Act 1992, the Electricity (Safety) Regulations 2010 and their respective amendments

Gazette Notice Link

[http://www.dia.govt.nz/Pubforms.nsf/NZGZT/NZGazette186Dec11.pdf/\\$file/NZGazette186Dec11.pdf](http://www.dia.govt.nz/Pubforms.nsf/NZGZT/NZGazette186Dec11.pdf/$file/NZGazette186Dec11.pdf)

General

It is considered that the Board needs to have requirements for the competence programmes that:

- are readily available to industry, and

- have integrity and be appropriate for the license classes, and
- are subject to regular audit, and
- provide an assurance to the public that persons who are issued with practicing licenses on the basis of completing the competence programme are competent to safely carry out prescribed electrical work to a level that satisfies the regulatory requirements.

Training providers of competence programmes must be:

- Registered person under the Electricity Act 1992.
- The holder of a current practicing license for a class of registration that is at least to the level or a level higher than the competence programme to be delivered.

Training providers of competence programme must ensure that all the amendments to the Electricity (Safety) Regulations 2010, the Electricity (Safety) Amendment Regulations 2011 dated 10 November 2011, AS/NZS 3000:2007 including amendment no's 1 & A and the companion standards that are cited in this document are incorporated into the competence programme courses delivered from 1 February 2012.

Overview

Any person who wishes to uplift a Board practicing license after 31 January 2012 must have attended Board- approved courses of instruction in electrical safety and approved instruction in cardio-pulmonary resuscitation and first aid.

The Board has introduced **new prescribed competence programmes** for persons applying to uplift Board practicing licenses that take effect **on 1 February 2012**.

All Board approved courses in electrical safety must have been conducted by a Board approved competence programme provider.

All instruction in cardio-pulmonary resuscitation must be provided so as to achieve the CPRL2 requirements of the New Zealand Resuscitation Council of New Zealand.

First Aid instruction must be provided in accordance with practices recognized by either the Red Cross of New Zealand or St John New Zealand.

Please note

Safe Working Practices are now specifically excluded from the Board's requirements for competence programmes to obtain a practicing license. Therefore, attending a competence programme will not satisfy the requirements to uplift a Trainee Limited Certificate.

Frequency of competence programme

The frequency of competence programme has been clarified in the gazette notice published 1 December 2011.

Electrical Inspectors, Electricians, Electrical Engineers, Electrical Installers, Electrical Service Technicians, Electrical Appliance Service Persons (endorsed), And Associated Trades Persons

Any of the above persons seeking practicing licenses, or the renewal of practicing licenses, must attend Board approved courses of instruction in electrical safety and approved instruction in cardio-pulmonary resuscitation and first aid **within a period of two years** immediately before the date of application. With the exception of those persons engaged in works, Line Mechanics and Cable Jointers

Persons working on works, Line mechanics and Cable Jointers seeking practicing licenses, or the renewal of practicing licenses, must attend Board approved courses of instruction in electrical safety and approved instruction in first aid every 14 months before the date of application, and approved instruction in cardio-pulmonary resuscitation every seven months before the date of application.

Competence programme subject material

The competence programme covers the following subjects:

- The Electricity (Safety) Regulations 2010 and subsequent amendments.
- testing for personal safety, and
- Evidence of assessments that incorporate practical testing of an attendee's "levels of knowledge" to confirm satisfactory completion of the competence programme.
- earthing requirements in AS/NZS 3000:2007, and

- the installation, operation and operational testing of residual current devices, and
- prospective short circuit current levels, and
- testing, certification, and inspection and
- Technical content of problem areas and issues published in the EWRB Electron, and
- Cardio-Pulmonary resuscitation and basic first aid, and
- The Board requirements relating to the supervision of trainees both from a supervisor and trainee perspective, Include Supervision procedures for Trainees dated (29 October 2010) sections 76 and 77 of the Electricity Act 1992 (reprint incorporating the Electricity Amendment Act 2006).

Schedule

(a) Electrical Inspector

The following is applicable to competence programmes for the electrical inspector practicing license class:

Subject material

Supervision of trainees

Earthing requirements as listed in AS/NZS 3000:2007

The installation, operation and testing of residual current devices (RCCB, RCBO, SRCD and PRCD)

Prospective short circuit currents

Testing and certification as listed in AS/NZS 3000:2007, AS/NZS 3760:2010 and the Electricity (Safety) Regulations 2010.

Inspection

(b) Electrician, Electrical Engineer and Electrical Installer

The following is applicable to competence programmes for the electricians, electrical engineer and electrical installer practicing license classes:

Subject material

Supervision of trainees

Earthing requirements as listed in AS/NZS 3000:2007

The installation, operation and testing of residual current devices (RCCB, RCBO, SRCD and PRCD)

Prospective short circuit currents

Testing and certification as listed in AS/NZS 3000:2007, AS/NZS 3760:2010 and the Electricity (Safety) Regulations 2010.

(c) Electrical Service Technician, Electrical Appliance Service Person (endorsed) and Associated Trades person

The following subject material is applicable to competence programmes for Electrical service technician, electrical appliance service person (endorsed) and associated trades person practicing license classes:

Subject material

Supervision of trainees

Earthing requirements as listed in AS/NZS 3000:2007

The purpose, usage and operational testing of residual current devices

Prospective short circuit currents

Testing requirements in accordance with AS/NZS 3000:2007 and AS/NZS 3760:2010.

(d) Electrical Appliance Service Person

The following subject material is applicable to competence programmes for electrical appliance service person practicing license class:

Subject material

Supervision of trainees

Earthing requirements as listed in AS/NZS 3000:2007

The purpose, usage and operational testing of residual current devices

Prospective short circuit currents

Testing requirements in accordance with AS/NZS 3760:2010.

(e) Line Mechanics and Cable Jointers

The following subject material is applicable to competence programmes for line mechanics and cable jointers

Subject material

Supervision of trainees

Earthing requirements as listed in AS/NZS 3000:2007

Prospective short circuit currents

Testing requirements in accordance with AS/NZS 3000:2007 and AS/NZS 3760:2010 and the Electricity (Safety) Regulations 2010.

First Aid and Cardio-Pulmonary Resuscitation Instruction

This is a mandatory section of the competence programme and is a prerequisite for obtaining a practicing license.

Approved instruction in first aid and cardio-pulmonary resuscitation that is offered as part of this course must be linked to all other sections that make up the competence programme delivered by the Board's approved competence programme provider, and

must:

- be completed with the other subject material of the competence programme, or
- If attended separately, complete the first aid and cardio-pulmonary resuscitation section of the course prior to completing the rest of the competence programme, and

- be reported to the Board by the competence programmer provider after satisfactorily completing all sections of the course.

Course presenters

The Board requires persons wishing to offer competence programmes to be accredited by the Board on an annual basis. This will require potential competence programme presenters, and approved competence programme providers to present their credentials for Board approval.

The Board will publish the names of accredited presenters in its publicity material and on its website.

Tuition course appropriateness for license classes

A provider of a competence programme course must ensure the subject material is aligned to the 5 groups that make up the 10 license classes and presented accordingly.

- (a) Electrical Inspector
- (b) Electrician, Electrical Engineer and Electrical Installer
- (c) Electrical Service Technician, Electrical Appliance Service Person (endorsed), and Associated Trades Person
- (d) Electrical Appliance Service Person
- (e) Line Mechanics and Cable Jointers

It is considered that the competence programme content subject material is relevant to all registered electrical workers and the degree of tuition required between the classes of practicing licenses as prescribed in this document should occur.

Professional development programmes

Board approved professional development programmes are acceptable for competence programme purposes provided the Board's above mentioned frequency of training aspects; subject material, cardio-pulmonary resuscitation, basic first aid and evidence of the practical testing assessment requirements are included in any professional development programme.

Auditing of Board approved tuition courses and presenters accredited by the Board.

The Board has an effective auditing programme in place to ensure that the Board's statutory function to ensure competency is satisfied, as well as satisfying the Board's role in ensuring public safety.

Levels of knowledge assessments

Competence programmes and professional development programmes must include an assessment and practical testing to ensure attendee's have satisfactorily completed the competency programme components.

Specific competence programme content

Testing for safety

All competence programme attendees are required to have a thorough knowledge of testing as listed in section 8 of AS/NZS 3000:2007 (incorporating amendment no's 1 & A) and section 2 of AS/NZS 3760:2010 including:

1. The checks and tests to be performed to ensure electrical installations are safe are identified and methods of measurement described, and
2. Where appropriate, the minimum and maximum values applicable to the testing. This includes:
 - Visual tests/inspections, and
 - Continuity of the earthing system, and
 - Insulation resistance, and
 - Polarity, and
 - Correct circuit connections, and
 - Operation of RCDs, and
 - Fault-loop impedance, and

- Frequency of inspection and testing of electrical appliances and equipment in accordance with the relevant sections of AS/NZS 5761: 2011, AS/NZS 5762:2011 & AS NZS 4701:2000.

The requirements relating to the supervision of trainees both from a supervisor and trainee perspective

All competence programme attendees are required to have thorough knowledge of the requirements of the Board's new supervision procedures for trainees (29 October 2010). Refer Section 77 of the Electricity Act 1992 reprint that incorporates the Electricity Amendment Act 2006.

Limited Certificates for Trainees

Trainees are required to obtain a Limited certificate from the Electrical Workers Registration Board. This is an authorization to work as a Trainee in the Industry. Trainees who fail to apply for the above Limited Certificate will not have their work experience recognized by the Board for the purposes of registration.

Earthing requirements

All competence programme attendees are required to have a thorough knowledge of the earthing requirements as listed in section 5 of AS/NZS 3000:2007 incorporating amendment no's 1 & A including:

1. The earthing of electrical installations and fittings for functional and protective earthing purposes, and
2. The role of MEN switchboards within the earthing system including the importance of earthing the neutral in the MEN system, and
3. The earth fault loop in the New Zealand MEN system, and
4. Measuring earth fault currents in installations.

The installation, operation and operational testing of residual current devices

All competence programme attendees are required to have a good knowledge of:

1. The properties and Classifications of different types of RCDs including RCCB, RCBO, SRCD and PRCD, and

2. Residual current ratings, tripping times for personal protection, and
3. Procedures for testing and verifying the operation of new and in service RCDs to achieve the outcomes of applicable regulations and standards.

Prospective short circuit current levels

- (a) for electrical inspectors
- (b) for electricians, electrical engineers and electrical installers
- (c) for electrical service technicians, electrical appliance service persons (endorsed) and Associated Trades persons
- (d) electrical appliance service persons
- (e) for line mechanics and cable jointers

Competence programme attendees are required to have knowledge at the above levels and should be aware that there is considerable danger inherent in the wrong selection of equipment or improper installation of equipment due to high prospective short circuit current levels. The high levels of energy dissipated during faults involving high currents can extensively damage plant and can lead to injury for any person working nearby.

Competence programme attendees should be able to perform calculations to determine prospective short circuit fault levels.

Training providers need to be able to provide competence programme attendees with information on the dangers associated with prospective short circuit currents.

All competence programme attendees are required to have a thorough knowledge of testing for personal safety.

Testing, certification and inspection

Competence programme attendees are required to have a good working knowledge of:

1. The requirements of the Electricity (Safety) Regulations 2010, the Electricity (Safety) Amendment Regulations 2011 (Dated 10 -11-11), AS/NZS 3000:2007 incorporating amendment no's 1 & A, AS/NZS 3760:2010, AS/NZS 5761:2011, AS/NZS 5762:2011 and AS/NZS

4701:2000.

2. Testing and inspection – General

- (a) The definition of the terms “testing” and “inspection”, and
- (b) The types of installation work which can only be inspected by a person authorized to inspect mains work, and
- (c) The installations that are subject to periodic inspections by a person authorized to inspect mains work, and

3 Testing of electrical installations

- (a) The specific tests that are required by AS/NZS 3000:2007 and state the types of test instruments required to perform those tests, and
- (b) The methods of carrying out the tests referred to in Regulation 73 (Verifying safety before connecting installations), stating the minimum and maximum values (where appropriate) that are acceptable, and
- (c) The requirements of regulation 70 which states the installation work requiring inspection by a person authorized to inspect mains work prior to connection to the power supply, and
- (d) The testing of installation wiring work as detailed under regulation 65 plus the compliance documentation that is required to be completed prior to inspection.
- (e) Who is responsible for performing the prescribed tests associated with the completion of the compliance documentation involving?
 1. self certification – work which does not require independent inspection
 2. work requiring inspection – by a person authorized to inspect mains work
 3. work that has been done in accordance with the regulations 57, 58, 59, 65, 66 and 67 and understand that a Certificate of Compliance must be:
 - completed within three days of the work being completed or no later than the end of the day after the day on which the contract for the work terminates

[regulation 67(4)]; and

- one copy of the certificate must be given to the person for whom the work was carried out within 20 working days of the work being completed [regulation 68(1)]; and
- one copy must be retained for three years regulation 68 (1), (2) and (3).

(f) Understand that certifying prescribed electrical work means that the work is electrically safe and has been tested in accordance with the regulatory requirements and is safe to connect to a electricity supply.

Declaration of Conformity (DOC)

Different types (Refer to Regulation 4)

- 1) Where installer is designer DOC incorporated into the one form on (Board's Certificate of Compliance Form).
- 2) Regulations 57, 58, 59, 60 & 71 (4).

Accidents that have been reported within the previous twelve months

All competence programme attendees are required to have a general knowledge of the technical content of problem areas and issues published in the EWRB Electron.

ELECTRON newsletter

All competence programme attendees are required to have a good knowledge of the disciplinary cases and other issues highlighted in ELECTRON newsletter.



N J J Sickels
Registrar