



Demonstrate knowledge of electricity industry safety
statutes and codes

US 12300

Training and Assessment Resource

NCES Level 2

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Introduction to Training Assessment Resource

This Training Assessment Resource (TAR) contains the information that you require to complete the written assignment in the assessment pack for this unit standard.

Purpose

People who obtain credit for this unit standard are able to:

- > Describe the various safety statutes and codes of practice that govern what people are able to do within the electricity industry.

1. Introduction



Activity

Think about the manuals or industry handbooks that you use in your workplace, that cover safety. Make a list of them below and briefly describe the purpose of each:

2. New Zealand Legal Process

In New Zealand the judiciary (which interprets and enforces the country's laws) is separate from both the legislature (Parliament, which makes the laws) and the executive (which runs the day-to-day affairs of government). Judges are appointed by the Governor General. Convention denies the government the authority to direct judges and the Constitution Act spells out the limited circumstances in which they can be removed from office.

People often use the words "legislation", "statutes", and "acts" to mean the same thing and in some cases this is correct. Legislation is a general term which refers to any document passed by or with the authority of Parliament. It will therefore include delegated legislation such as bylaws and regulations. "Act" refers to an Act of Parliament and does not include laws that may have been passed by any other body. The word "statute" is practically identical to "act" although at times it is used to describe rules made by non-governmental bodies such as universities and councils.

It is fundamental to our legal system that the law is certain and that people know what they are permitted to do and what they are not permitted to do. This is particularly important in the electrical industry because there are safety issues in working with electricity.

Because of the complexities in the areas to which a particular law is to be applied, and in the interpretation of acts made by the government, regulations are authorised that fill in the administrative and procedural details to make the intentions of an Act clear.



Activity

What is the difference between legislation, statutes and acts?

In the next section (3), acts of Parliament and Regulations that impact on the electricity industry and have been passed by government through "Order in Council", are described.


3. New Zealand Electrical Industry Legislation

The electricity supply industry in New Zealand is controlled through government legislation and this determines what can be done within the industry. You need to be familiar with the documents that determine what is required.

3.1 Electricity Act 1992

The legislation that provides for the regulation of the supply of electricity and the electricity industry in New Zealand including the regulation and control of people who work in the industry.

Reprint
as at 19 August 2005



Electricity Act 1992

	Public Act	1992 No 122
①	Date of assent	17 December 1992
	Commencement	see section 1(2), (3) ②

③ Contents

④	Title	12	Appeal on question of law
	Short Title and commencement	13	Secretary may require immediate compliance
	Part 1	14	Appeal against decision on application for injunction
	Preliminary provisions	15	Assessors
2	Interpretation	16	Notification and investigation of accidents
3	Act to bind the Crown	17	Interference with scene of accident
	Part 2	18	Inquiries into accidents
	General	19	Assistance to Secretary
	<i>Electricity operators</i>	20	Obstructing Secretary
4	Declaration of electricity distributors as electricity operators	21	Privilege against self-incrimination
4A	Declaration of electricity supply businesses as electricity operators		Part 3
	<i>Functions and powers of Secretary</i>		Powers and duties of electricity operators and other owners of electrical works
5	Functions of Secretary	22	Protection of existing works
6	Inspection of works, etc	22A	Owners of land not responsible for maintenance
7	Report to be compiled on inspection	23	Rights of entry in respect of existing works
8	Special powers of Secretary	23A	Land owner must give written notice of intention to maintain or complete existing works
9	Objections to Secretary's requirements		
10	Effect of notice or requirement pending hearing		
11	Procedure on hearing of objection		

⑤ An Act—

- (a) to make better provision for the regulation of the supply of electricity and the electricity industry in New Zealand; and
- (b) to consolidate and amend the law relating to the regulation and control of electrical workers; and
- (c) to provide for matters incidental thereto; and
- (d) to repeal the Electric Linemen Act 1959, the Electricity Act 1968, and the Electrical Registration Act 1979

Electricity Act 1992. 1. This indicates the year the act was passed and that it was the 122nd act of parliament that year. 2. The date the act was given the 'Royal' approval i.e., signed by the Governor General. 3. Contents: An index to the sections of the act, and is used simply for reference. 4. Short Title: The name by which the act is referred. 5. Long Title: May be useful in understanding the purpose of the act.

3.2 Electricity Regulations 1997 and subsequent Amendments

The regulations that govern the standards of installation of plant and equipment used within the electricity industry.

The Electricity Regulations 1997 were made by Order of Council and are pursuant to Section 169 of the Electricity Act 1992. They came into force on the 7th April 1997. A major review of the regulations resulted in a replacement document coming into force on the 1st January 2003. This is now the current regulation document and is called the Electricity Regulations Compilation 2003.



ELECTRICITY REGULATIONS COMPILATION 2003

This publication was produced by the Electrical Workers Registration Board. The official source used were regulations 1997/60, 1999/369 and 2002/413.

ANALYSIS

PART 1	PART 3
PRELIMINARY PROVISIONS	PRESCRIBED ELECTRICAL WORK AND WORKER SAFETY
1. Title and commencement	<i>Prescribed Electrical Work</i>
2. Interpretation	17. Prescribed electrical work
3. Application	<i>Restrictions on Prescribed Electrical Work</i>
PART 2	18. Prescribed electrical work registered electrical service technicians may do
REGISTRATION AND LICENCES	19. Prescribed electrical work registered line mechanics may do
<i>Registration</i>	20. Prescribed electrical work registered electricians and registered electrical inspectors may do
4. Requirements for registration and provisional licences	21. Prescribed electrical work qualified engineers may do
<i>Examinations</i>	22. Prescribed electrical work holders of provisional licences may do
5. Holding of examinations	23. Prescribed electrical work trainees may do
6. Eligibility to sit examinations	24. Work on live high voltage overhead electric lines
7. Applications for examination and re-marking	<i>Competency Requirements and Safety Tuition, Etc</i>
<i>Notices</i>	25. Competency requirements for electrical workers
8. Receipt of notices	26. Safety tuition for electrical workers
<i>Registers</i>	27. Assistance for work on certain live high voltage fittings
9. Registers	
10. Entries in registers	
11. Inspection of registers	
<i>Practising Licences</i>	
12. Practising licences	
13. Conditions for issue of practising licences	

The front page and index is shown on this page.

3.3 New Zealand Electrical Codes of Practice (NZECP)

These provide additional information to clarify the interpretation of the regulations and set standard work practices.

The Electricity Act 1992 sets out duties which are in turn supplemented by regulations, approved codes of practice, standards and guidelines developed by, or in conjunction with the electricity industry.

Like the act, regulations are enforceable and breaches may result in prosecution and fines. Approved codes and standards of practice are guidelines which have been approved by the Minister of Energy under the act. Regulations that have the word “must” in the statement are definitely considered mandatory (for example Reg 37 (3), while those that have the word “may” (for example Reg 38 (3) should not be considered as mandatory. However, their evidence may be considered as “good practice” in a court of law.

Guidelines developed by, or in conjunction with the electricity industry may not have been through a formal approval process, but are nevertheless an important source of guidance to employers and employees on how the requirements of acts and regulations can be met.

A current list (as at July 2007) of acts, regulations and codes of practice and Standards are shown on the next page. As this can change you should check with the government and industry bodies to ensure that you have a current version



Activity

What could happen if you were in breach of a regulation?

If the word ‘must’ was used in a regulation statement, what would this mean?

3.4 Joint Australian/New Zealand Standards (AS/NZ)

Standards are replacing the Electrical Codes of Practice (ECP).

There is a move towards the utilisation of standards rather than regulations and to make them common to both Australia and New Zealand. At the moment this change is in transition and there is a choice as to whether an installation complies with either the standard or the regulation. The difference between standards and regulations are; standards give you the expected outcome while the regulations, with the NZECP are more concise in respect to what is required. Standards are replacing the Electrical Codes of Practice (ECP). Two common standards are:

AS/NZS 3000:2000 Wiring Rules

The standard that is commonly used by Electricians for the installation of electrical wiring

AS/NZS 3760:2003 In-service Safety Inspection and Testing of Electrical Equipment

The standard that is commonly used by electrical service technicians and covers the requirements for portable electrical appliances, plant and equipment.



Activity

Think about your safety responsibilities as an employee.

For each of the following legislation or industry codes provide their definition of the safety responsibilities of the employee.

NZECP Number	NZECP Name	Brief summary of what the code covers
34		
35		
41		
46		

50		
51		

3.5 Safety Manual - Electricity Industry (SMEI) parts 1-3, 2004

Published by the Electricity Engineers Association of NZ (EEA) specifically covering the requirements for safety in the New Zealand electricity generation, transmission and distribution industry.

3.6 Health and Safety in Employment (HSE) Act 1992 and subsequent amendments and regulations

This is very important legislation that impacts on safety in the workplace. It places a lot of responsibility on employers and employees to ensure that workplace accidents are minimised.

The HSE Act 1992 requires employers, with the involvement of their employees to identify and control significant hazards. This is to be done in a systematic way and will involve the use of check lists, hazard identification forms, tail-gate meetings etc., before any work commences or if there is a change in the work plan.

The HSE Act 1992 encourages employers to be very active in the identification of both hazards and potential hazards and involve the employee in this process.



Activity

Think about your safety responsibilities as an employee.

For each of the following legislation or industry codes provide their definition of the safety responsibilities of the employee.

Legislation or industry codes	Definition of safety responsibility of employee
Electricity Act 1992	
Health and Safety in Employment Act 1992	
SMEI	

4. Electrical Workers Registration Board

The Electrical Workers Registration Board, established by statute in 1992, is responsible for the ongoing competency of over 30,000 registered electrical and electronic workers. It also promotes electrical and electronic safety to all New Zealanders.

The Board consists of seven members, resident throughout New Zealand, appointed by the Minister of Energy. Five members are registered under the act and two are suitably qualified members of the public not entitled to be registered.

The principal role of the board is governance. It provides input into the direction and implementation of electricity legislation. The service provider for the board is the Electrical Workers Licensing Group, Ministry of Economic Development.

The board provides for the following:

- > Conducts examinations
- > Monitors training
- > Receives and authorises registration of four classes of electrical and electronic workers
- > Issues provisional licenses to those who meet requirements
- > Ensures registered people maintain an adequate level of competency
- > Exercises disciplinary powers
- > Institutes prosecution when necessary under the electricity act 1992

Public board meetings are held monthly and members of the registrar are available for consultation within the industry and the public. Board meeting agendas and meeting minutes are available from the board on request. Discussion papers and complaint hearing decisions that are not subject to board publication are also available from the board on request. Requests are to be made to: The Registrar, PO Box 10156, Wellington. The electrical and electronic workers fund the board and its administration.

Roles and responsibilities

- > Competency of Licensed Electrical Workers
- > Licensing of Registered Electrical Workers
- > Discipline of Licensed Electrical Workers
- > Promotion of electrical safety
- > Resource management, monitoring and review of outcomes

Services and Activities

- > Register electrical and electronic workers including maintaining the register of such workers
- > Issues Provisional Licenses
- > Issues Tradesperson Certificates
- > Issues Practicing Licenses
- > Issues and monitors Certificates of Compliance
- > Issues and monitors Electrical Safety Certificates
- > Educates both internal and external target audiences
- > Sets examinations in association with training providers
- > Audits electrical work in accordance with risk
- > Manages complaints and disciplinary proceedings

To provide the services required of it, the board enters into commercial transactions with organisations based on transparent and competitive tendering. The board constantly reviews the way in which things are done, plays a key role in informing the public about electrical and electronic safety issues and is responsible for running disciplinary hearings.



Activity

Summarise the role of the EWRB.

5. Electricity Engineers Association (EEA)



Operating for over 75 years, the EEA is committed to providing the New Zealand electricity supply industry with leadership, expertise and information on technical, engineering and safety issues affecting the electricity industry.

The EEA has over 300 Members and 35 Corporate Members, including engineers; industry chief executives; network and generation managers & staff; electricity retailers; contracting managers & staff; equipment suppliers & manufacturers; energy industry analysts & consultants; engineering consultants; HV installation owners & engineering staff; government departments, agencies and officials; technical and business development managers; technical field staff; health & safety managers; technical standards writers; systems planners; and others involved in the generation, transmission, distribution, retail and utilisation sectors of the New Zealand electricity supply industry.

The EEA provides representation to government, media, regulatory and professional bodies on engineering, technical and safety issues by representing members' views on engineering, technical and safety issues to decision makers is a key role of the EEA. The EEA monitors these issues by utilising industry specialists, and keeps the membership informed, offering advice and assistance as required.

The EEA develops, promotes and maintains industry standards, guidelines and best practice documents by working closely with industry, key government agencies, overseas organisations and Standards NZ to source international safety information and safety benchmarks maintaining appropriate engineering and technical standards for industry; and ensuring that industry rules and guidelines reflect international best practice. The EEA is focused on excellence in industry performance and continually reviews, updates and educates industry on engineering, technical and safety processes and improvements.



Activity

Write a list of all of the organisation that have a safety role within the electricity supply industry. You should be able to come up with at least five.

Next Steps

Well done! You have completed the training assessment resource for Unit Standard 12300 – Demonstrate knowledge of electricity industry safety statutes and codes.

When you are ready to complete your assessment tasks, please contact your assessor for instructions.

Model Answers to Activity Questions



Activity (page 4)

Think about the manuals or industry handbooks that you use in your workplace, that cover safety. Make a list of them below and briefly describe the purpose of each:

SMEI (July 2004) parts 1, 2 and 3. Purpose is to cover the minimum safety requirements, general safety guide and rules of working on equipment.

New Zealand Electricity Regulations 1997

AS/NZS 3000:2007



Activity (page 5)

What is the difference between legislation, statutes and acts?

Legislation is a general term which refers to any document passed by or with the authority of parliament. It will therefore include delegated legislation such as bylaws and regulations. "Act" refers to an act of parliament and does not include laws that may have been passed by any other body. The word "statute" is practically identical to "act" although at times it is used to describe rules made by non-governmental bodies such as universities and councils.



Activity (page 8)

What could happen if you were in breach of a regulation?

Regulations are enforceable and breaches may result in prosecution and fines.

If the word 'must' was used in a regulation statement, what would this mean?

Regulations that have the word "must" in the statement are definitely considered mandatory.



Activity (page 10)

Think about your safety responsibilities as an employee.

For each of the following legislation or industry codes provide their definition of the safety responsibilities of the employee.

NZECP Number	NZECP Name	Brief summary of what the code covers
34	Electrical Safety Distances	Sets minimum safe electrical distances for lines and other works.
35	Power Systems Earthing	Provides guidance on acceptable methods for determining the safety of earthing systems associated with works.
41	Single Wire Earth Return Systems	Sets out the requirements of single wire earth return systems.
46	Live Work (for Line Mechanics)	Rules for live work carried out by line mechanics.
50	Repair of Domestic Electrical equipment	Repair and maintenance of domestic electrical appliances by the owner of the appliance.
51	Electrical Work in Domestic Premises	Home owner/occupier electrical wiring work in domestic premises.



Activity (page 12)

Think about your safety responsibilities as an employee.

For each of the following legislation or industry codes provide their definition of the safety responsibilities of the employee.

Legislation or industry codes	Definition of safety responsibility of employee
Electricity Act 1992	Have tuition for safe working practices, testing for safety, first aid and CPR that is current.
Health and Safety in Employment Act 1992	The HSE ACT 1992 requires employers, with the involvement of their employees to identify and control significant hazards.
SMEI	Rule 1.501 Employees to observe safety rules and instructions.



Activity (page 14)

Summarise the role of the EWRB.

The Electrical Workers Registration Board, established by statute in 1992, is responsible for the ongoing competency of over 30,000 registered electrical and electronic workers. It also promotes electrical and electronic safety to all New Zealanders.

The principal role of the board is governance. It provides input into the direction and implementation of electrical legislation.



Activity (page 15)

Write a list of all of the organisation that have a safety role within the electricity supply industry. You should be able to come up with at least five.

OSH, EEA, Electrical Workers Registration Board, Electrical Workers Licensing Group, Employers Asset Owners, Ministry of Commerce, Department of Labour.