

Demonstrate knowledge of electrical safety in the workplace

Level 3

Credits 4

Purpose People credited with this unit standard are able to: demonstrate knowledge of the effects of electrical accidents on humans and property; demonstrate knowledge of safe work practices with electrical equipment in relation to the prevention of electrical accidents; and explain the correct response to electrical accidents and injuries.

Subfield Occupational Health and Safety

Domain Occupational Health and Safety Practice

Status Registered

Status date 25 May 2007

Date version published 25 May 2007

Planned review date 31 December 2012

Entry information Open.

Accreditation Evaluation of documentation by NZQA and industry.

Standard setting body (SSB) New Zealand Industry Training Organisation – Industrial Health and Safety Advisory Group

Accreditation and Moderation Action Plan (AMAP) reference 0171

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 Definitions
Organisational requirements refer to instructions to staff on policy and procedures, which are documented in memo or manual format and are available in the workplace. These requirements may include but are not limited to – site specific requirements, company quality management requirements, approved codes of practice and guidelines, and legislative requirements.

Legislative requirements include but are not limited to compliance with – Health and Safety in Employment (HSE) Act 1992 and Health and Safety in Employment (HSE) Regulations 1995, Electricity Act 1992 and Electricity Regulations 1997, AS/NZS 3000:2000, *Electrical Installations* (known as the Australian/New Zealand Wiring Rules); Resource Management Act 1991, local body regulations, approved codes of practice, and subsequent amendments.

- 2 This unit standard is a base for those wanting to demonstrate knowledge in procedures and/or practices used for safety purposes within the workplace. It is not intended for those who wish to become registered electricians.

Elements and performance criteria

Element 1

Demonstrate knowledge of the effects of electrical accidents on humans and property.

Performance criteria

- 1.1 Consequences of electrical shock or burns on the human body and electrical accidents involving property are explained in terms of the degree or level of electricity received.

Range effects on a human body include but are not limited to – muscular contraction causing victim to grip, effect on heart muscles, electrical burns, physical injury; effects of electrical accidents involving property include but are not limited to – fires and burns.

Element 2

Demonstrate knowledge of safe work practices with electrical equipment in relation to the prevention of electrical accidents.

Performance criteria

- 2.1 Correct procedures for the isolation of electrical equipment are explained according to organisational requirements.

Range procedures may include but are not limited to – assume equipment is energised unless proven otherwise, unplug equipment when not in use, application of site lock out and tag procedures, identifying the hazards of electricity and water.

- 2.2 Safe working practices are specified in terms of power tools, electrical equipment, transformers, and residual current devices.

Range examples of safe working practices may include but are not limited to – the use of grounding devices; isolating transformers; use of safety equipment with extension cables and power tools, eg residual current devices; avoiding overload of extension cords;

avoiding damage to extension cords; inspect tools and appliances before use; identifying, repairing or replacing damaged equipment; awareness of dangers associated with brittle and/or cracked wiring insulation, exposed wires, loose fittings; early warning signals – smell, arcing in switches, hot fittings, eg switches, multi-boards.

Element 3

Explain the correct response to electrical accidents and injuries.

Performance criteria

- 3.1 Responses to assist an electric shock victim are identified in accordance with the degree of shock received and the correct health and safety procedures required.
- Range responses include but are not limited to – if possible switch off the power source, do not touch the victim, stop others from touching the victim, use non-conducting material to separate victim from power source, use Cardio Pulmonary Resuscitation (CPR), call for professional assistance.
- 3.2 Responses to assist electrical burn victim are identified in accordance with the degree of burn received and the correct health and safety procedures required.
- Range responses include but are not limited to – immediate treatment of burn, call for professional assistance.
- 3.3 Response to a fire involving live electrical equipment is explained in terms of immediate actions and health and safety procedures.
- Range responses include but are not limited to – warn others of immediate danger, warn emergency services, use correct extinguishing medium (dry powder, CO₂).

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the New Zealand Industry Training Organisation office@nzito.co.nz if you wish to suggest changes to the content of this unit standard.