

Electrical Testing and Safety Observers

Work health and safety requirements



Government
of South Australia

SafeWork SA

South Australia's work health and safety laws, effective 1 January 2013, introduced a new approach to a number of key areas, including high risk construction work, working on energised electrical equipment, safety observers and testing.

To understand how these changes affect your business, you should read the relevant sections of the *Work Health and Safety Regulations 2012* (SA) [the WHS Regulations] that relate to working on energised electrical equipment. This fact sheet provides guidance on those requirements.

High risk construction work

WHS Regulation 291 defines high risk construction work, which includes construction work that is carried out on or near energised (live) electrical installations or services.

Regulations 299-303 discuss the requirement for a Safe Work Method Statement (SWMS) for any work identified as high risk construction work.

Given that working on or near energised (live) installations, services or equipment is defined as high risk construction work, an SWMS is required.

Working on energised electrical equipment

Regulation 154 prohibits work on energised electrical equipment in all cases, unless (as permitted under Regulation 157):

- it is necessary in the interests of health and safety e.g. life saving equipment, or
- it is necessary for the work to be carried out properly, or
- it is necessary for the purposes of testing, or
- there is no reasonable alternative means of carrying out the work.

Regulation 158(1) requires a documented risk assessment with control measures in place prior to any work on energised equipment.

Regulation 161 describes how any work on energised electrical equipment is to be carried out, and requires:

- a competent person who has tools, testing equipment and personal protective equipment (PPE) that are appropriate, tested and maintained, and
- an SWMS prepared for the work, and
- a competent and qualified safety observer present (if this has been determined as necessary by your risk assessment).

Electrical testing

Testing can include fault finding and troubleshooting, which can be conducted without a safety observer where the risks are negligible. However, a risk assessment must always be undertaken prior to testing to formally determine the level of risk.

The risk assessment can be outlined in an SWMS or other document. The risk assessment should consider:

- the complexity of the test
- the likelihood of the electrician coming into contact with live parts
- exposed equipment issues
- fault levels and electrical fault protection systems.

Note for consideration: the provision of an electrical fault protection system must not be relied upon to replace a risk assessment or an SWMS.

Where serious risks are identified and assessed for testing work, a safety observer must be considered within the control measures of the SWMS or risk assessment document.

For typical and repetitive testing activities, an SWMS covering the repeated test or fault finding work can be used as a template, and modified for different locations, site specific hazards and associated risks.

Safety observer

Regulation 161 requires the safety observer to be competent:

- to implement control measures in an emergency, and
- to rescue and resuscitate the worker who is carrying out the work.

It is a requirement that rescue and resuscitation assessment is undertaken annually in accordance with Subregulation 161(4) and Regulation 68 of the *Electricity (General) Regulations 2012*. This requires persons who carry out, or help in carrying out, electrical work to be suitably trained in rescue and resuscitation in accordance with the requirements of the Technical Regulator.

Under Subregulation 161(5), a safety observer is not required if:

- the work consists only of testing; and
- the person conducting the business or undertaking has conducted a risk assessment that shows there is no serious risk associated with the proposed testing work.

Residential construction – BCA Class 1 dwellings

There should not be any work on live installations in residential construction of Class 1 dwellings under the Building Code of Australia (BCA).

All electrical power should be isolated before workers enter high risk areas such as roof and underfloor spaces.

Further information

A copy of the WHS Regulations can be downloaded from the SafeWork SA website at safework.sa.gov.au.

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