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# Inservice Inspection, Testing and Tagging of Electrical Equipment Guideline

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## 1. Guiding Principles

This guideline is part of the hazard management element of the WA Country Health Service (WACHS) safety management system (SMS) and seeks to ensure, as far as practicable, the safety of persons using electrical equipment within WACHS.

WACHS has a duty of care obligation under the *Occupational Safety and Health Act 1984* to provide and maintain workplaces, equipment and systems of work that are safe and as far as is practicable, free of risk.

## 2. Scope

This document provides guidance for the safety inspection and testing of electrical equipment; low voltage single phase and polyphase, which is to be entered into service for the first time, or which is already in service, has been serviced, or is available for hire or resale.

Electrical equipment refers to any electrical equipment or appliance brought onto a WACHS site, or used as part of any WACHS sanctioned activity by staff, volunteers or contractors, visitors, hire companies or any other person or agency.

This guideline has been developed in accordance with AS 3760-2010, *In-service safety inspection and testing of electrical equipment*.

### 2.1 Exceptions

This guideline does not apply to:

- items of equipment supplied, serviced or maintained by the Bio-Medical Engineering division of WACHS
- electrical equipment, including light fittings, at a height of 2.5 metres or more above the ground, floor, or platform where there is not a reasonable chance of a person touching the equipment and, at the same time, coming into contact with earth or any conducting medium
- functional checks
- any item of equipment that needs to be dismantled to perform the inspection and tests
- fixed or stationary equipment connected to wiring that forms parts of the electrical installation and falls within the scope of AS 3000:2007. *Electrical Installations Standard* (known as The Wiring Rules).

### 3. Definitions

<p><b>Electrical Equipment / Appliance</b></p>	<p>An electrical appliance is an electricity consuming device or apparatus (including the cable) that is connected to or capable of being connected to the electrical installation.</p> <p>Electrical appliances can be classified into one of the following categories:</p> <ul style="list-style-type: none"> <li>a) Residual current device (RCD): A switching device intended to isolate the circuit when the current imbalance attains the rated operating leakage current value of the device.</li> <li>b) Hand-held / portable: Equipment that is not a part of a fixed electrical installation but can be connected to an electricity supply by a flexible cord or other connecting device for example computers, printers, kettles, toasters, fans, floor polisher, vacuum cleaner, power tools, extension leads, non-fixed portable outlet device (EPOD) or power board, desk lamps, and the like.</li> <li>c) Moveable: An appliance that, whilst it can be moved readily from one place to another by unplugging from a general purpose outlet (GPO), is not moved during operation. Examples include items such as personal computers, printers, fax machines, microwave ovens and fridges.</li> <li>d) Fixed or stationary: An appliance which in normal use is fastened to a support or otherwise fixed in a specific position or is of such size or function as to be difficult or unlikely to be moved from one place to another. Examples include washers, dryers, commercial kitchen equipment, freezers, mortuary cabinets, ovens, air conditioners and the like.</li> <li>e) Unique: An appliance that does not fit into other categories, for example: electric treatment tables, immersion heater elements, UV light sources.</li> </ul>
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<p><b>Competent Person</b></p>	<p>A competent person is a person approved to undertake explicit electrical work. A competent person for the purposes of this guideline is to be:</p> <ul style="list-style-type: none"> <li>a) An electrician, or an electrician under training, both of whom are to be licensed and approved to work on the electrical installation and electrical appliances;</li> <li>b) An electronics technician approved to work on electrical appliances connected to or capable of being connected to the electrical installation;</li> <li>c) A tradesperson holding a restricted electrical licence (air-conditioning mechanic, plumber, mechanical fitter, electrical fitter) approved to work on restricted electrical appliances and their connection to the electrical installation according to the specific conditions of their licence.</li> <li>d) A person, having been appropriately trained and authorised to conduct testing by plugging equipment into a commercially available plug in testing device. Competent persons need not hold any electrical licence but are required to have been issued a Statement of Attainment / Certificate of Competency from a Registered Training Organisation, and are to produce the proof of training on request by WACHS Management.</li> <li>e) General Note. The competent person's name must appear on the equipment tag, along with the test or retest date as specified in AS/NZS 3012:2003. If the competent person is a licenced electrician, their electrical licence number must also be included on the equipment tag.</li> </ul>
<p><b>Low Voltage</b></p>	<p>A voltage exceeding 50V AC or 120V ripple free DC, but not exceeding 1000V AC or 1500V DC.</p>

#### 4. Guideline

Within WACHS, testing is to be carried out by a competent person:

- a) prior to the initial introduction to service. Where the equipment is new the supplier is deemed to be responsible for the initial electrical safety of the equipment following receipt of appropriate documentation from the supplier
- b) before return to service or after repair or servicing which could have affected electrical safety
- c) At intervals not exceeding those in Table 4 of AS 3760-2010, reproduced as [Attachment A](#).

d) Residual current device:

- portable type – before use or push button test by user every three months maximum, operating time test every two years
- fixed type – push button test by user every six months maximum or before use, operating time test every two years.

e) Hand-held / portable equipment:

Test annually, except where work area determines a more frequent test period is necessary for the conditions, e.g. field work (home visits etc.), wet area use or harsh conditions. All workshop hand tools are to be double insulated.

f) Moveable:

Test on delivery and, subject to the environment in which the appliance is used, further testing only if appliance is repaired or shifted to another location.

g) Fixed / stationary:

Test on delivery with further testing required if the appliance is repaired or modified.

h) Unique:

The regional electrician or maintenance officer is to set the testing regime with test frequency determined by risk.

### Priority for Testing

The following priorities apply to the planned testing of electrical equipment:

- Clinical areas and wards, sterilizing areas and equipment used in wet areas such as laundries and kitchens, accommodation
- Workshops, outstations and equipment used for home visits
- Office equipment.

The frequency of testing should relate to the risk of damage to the electrical equipment due to use, the environment, the portability and the fault history of an appliance.

## 5. Roles and Responsibilities

### 5.1 Managers and Supervisors

Managers and supervisors are responsible for:

- ensuring that electrical appliances in their workplace are regularly tested and tagged by a competent person according to the Schedule at Attachment A to this guideline
- ensuring that only a competent person performs any electrical work on electrical equipment under their control
- ensuring that users of electrical equipment / appliances are made aware of their responsibility to report hazards
- approving the use of privately-owned electrical appliances within the work area and ensuring such appliances have been tested and tagged in accordance with this guideline prior to use. In general, the use of privately owned appliances is discouraged.

### 5.2 Competent Persons

It is the responsibility of competent persons to:

- perform inspection, testing and tagging of electrical equipment

- withdraw failed or faulty equipment from service
- maintain records of testing and provide these to the maintenance officer or manager assets
- inform management of electrical hazards found in the workplace
- undertake such work in such a manner that others are exposed to the least possible degree of danger.
- immediately report instances of electrical shock to their manager or supervisor, and completed a WACHS [Safety Risk Report Form](#) as soon as possible. Note that Electrical Shock is classed as a Major Incident Category within the WACHS [Hazard-Incident Management Procedure](#).

### 5.3 Maintenance Officer or Manager Assets

The manager assets / maintenance officer is responsible for:

- ensuring that sufficient resources are provided to perform testing and tagging;
- administering the inspection, testing and tagging program across the region, including maintaining records of inspection and testing as follows:
  - A register of all electrical equipment
  - A record of formal inspection and tests
  - A repair register
  - A record of all faulty equipment.
- purchasing of appropriate testing equipment, including durable tags
- confirming the competency of a person undertaking electrical testing and tagging.

### 5.4 Users of Electrical Equipment / Appliances

Users of electrical equipment or appliances:

- are not to interfere with the marker tag on electrical appliances or with the tagging procedure used as a safety control by the approved person
- are to ensure that electrical appliances are set up correctly and used safely
- monitor the condition of electrical equipment or appliances under their control and immediately report any hazard to the line manager after de-commissioning and tagging out any item of electrical equipment believed to be defective or hazardous
- are not permitted to repair, modify or interfere in any way with electrical appliances
- are not to use electrical equipment when the due date for inspection has passed. Electrical equipment with expired fit for service tags should be decommissioned and reported to line management as a hazard
- are not to use electrical portable outlet devices (EPODs) unless they have overload protection. Double adaptors are not approved for use and should be removed and replaced with EPODs with overload protection devices fitted.
- are to immediately report instances of electrical shock to their manager or supervisor, and completed a WACHS Safety Risk Report Form
- as soon as possible. Note that Electrical Shock is classed as a Major Incident Category within the WACHS [Hazard-Incident Management Procedure](#).

## 6. Compliance

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Employment Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

## 7. Evaluation

Periodic audits of electrical inspections, testing and tagging completion are to show a 100% compliance rate with the intervals reproduced as [Attachment A](#).

## 8. Standards

[EQulPNational Standards](#) - 15.16.2

## 9. Legislation

*Electricity (Licensing) Regulations 1991*

*Occupational Safety and Health Act 1984*

*Occupational Safety and Health Regulations 1996*

## 10. References

Standards Australia, *AS3000-2007, Electrical Installation Standard*, Homebush, NSW.

Standards Australia, *AS3012-2010, Electrical installations – Construction and demolition sites*. Homebush, NSW.

Standards Australia, *AS3017-2007, Electrical installations – Testing and Inspection guidelines*. Homebush, NSW.

Standards Australia, *AS3760-2010, In-service safety inspection and testing of electrical equipment*. Homebush, NSW.

## 11. Related Forms

WACHS [Safety Risk Report Form](#)

## 12. Related Policy Documents

WACHS [Hazard-Incident Management Procedure](#)

**This document can be made available in alternative formats  
on request for a person with a disability**

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**Attachment A: Schedule of Testing**

Environment	Risk	Portable Equipment	Portable RCD	Fixed RCD	Cables, EPODs
			<b>User – push button test</b>		
1. Construction Site	High	3 months	At connection or Daily (whichever is longer)	1 month	3 months
			<b>RCD operating time test</b>		
			3 months	12 months	
			<b>User – push button test</b>		
2. Workshops.	High	6 months	At connection or Daily (whichever is longer)	6 months	6 months
			<b>RCD operating time test</b>		
			12 months	12 months	
			<b>User – push button test</b>		
3. Laboratory, Health Care equipment, Kitchen and Tea rooms. Wet areas	High	12 months	At connection or 3 months (whichever is longer)	6 months	12 months
			<b>RCD operating time test</b>		
			12 months	12 months	
			<b>User – push button test</b>		
4. Office, where cords subject to flexing, open to abuse or hostile environment	Medium	12 months	3 months	6 months	12 months
			<b>RCD operating time test</b>		
			12 months	12 months	
			<b>User – push button test</b>		
5. Offices where cords not flexed in use, safe from abuse and non-hostile environment	Low	5 years	3 months	6 months	5 years
			<b>RCD operating time test</b>		
			24 months	24 months	
6. Repaired / serviced / second hand equipment	Medium	After repair, service which could affect electrical safety or on reintroduction to service, inspect and test			
7. Commercial cleaning equipment	Medium	6 months	3 months	NA	12 months
8. Residential equipment	Medium	2 years	6 months	2 years	2 years