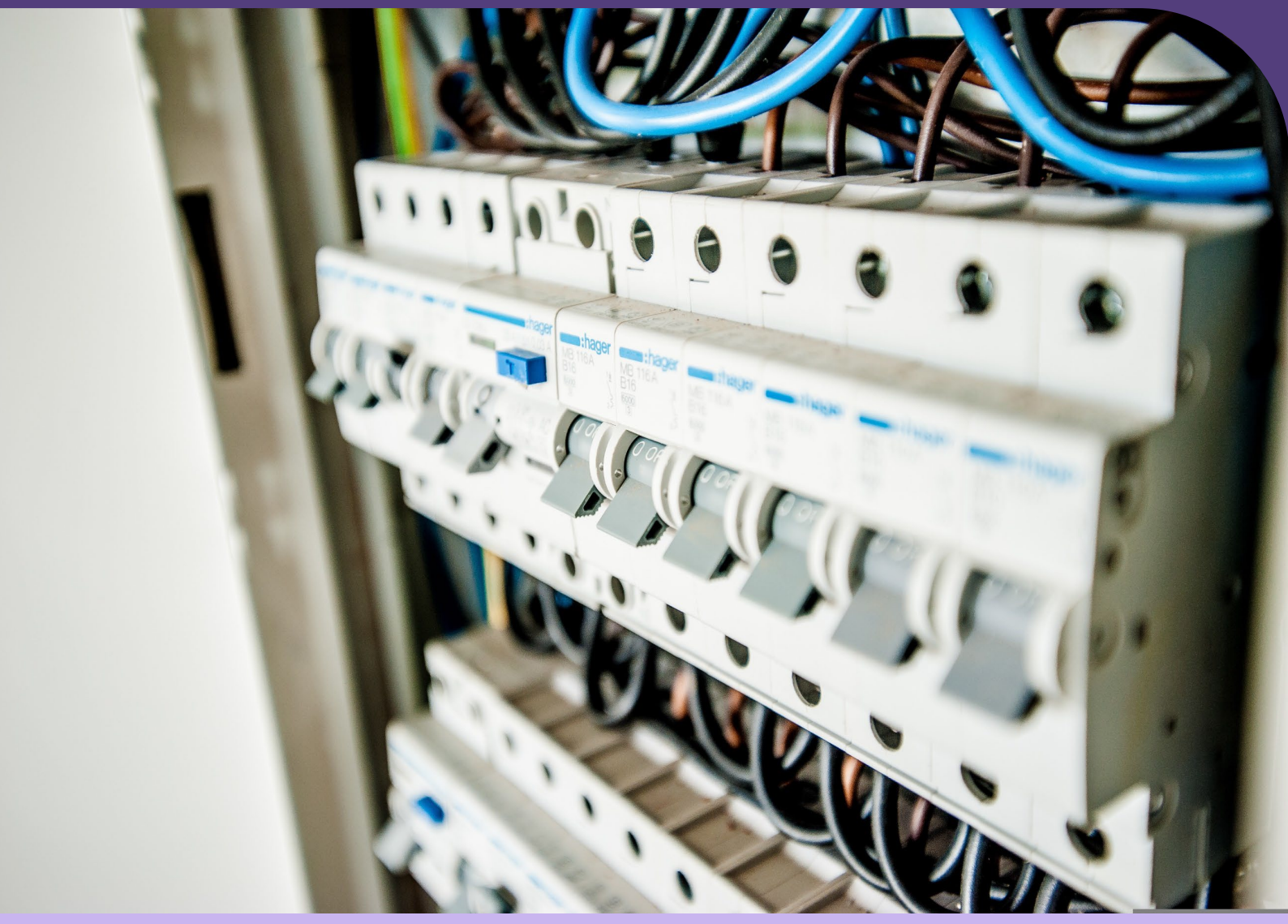
Electrical Procedure (9)



Catholic Safety & Injury Management
South Australia

Contents

1. PURPOSE

To provide guidance in the management of electrical hazards and to define the system and outline the legal requirements that must be implemented.

2. SCOPE

This procedure applies to all workers under the Catholic Church Endowment Society Inc. (CCES).

3. DEFINITIONS

Definitions can be found on the Catholic Safety & Injury Management Website.

3.1. Information

3.1.1. Actions to take during Electrical Incidents

Use caution and have an emergency response plan for all scheduled electrical maintenance or work.

Attempts to rescue may pose as great a hazard for the rescuer because of muscle cramping; a victim is often incapable of moving or releasing the electrical conductor.

3.1.2. Symptoms of Electric Shock

Typical symptoms of an electric shock include:

- a weak, erratic pulse or no pulse at all.
- difficulties in breathing or no breathing at all.
- burns, particularly at the place where the electricity entered and left the body (entrance and exit burns).
- unconsciousness.
- cardiac arrest.

Although someone who has had an electric shock may appear unharmed, they should still receive medical attention. Some injuries and complications may not be obvious initially. All persons who have reported receiving an electric shock must be advised to have an ECG.

3.1.3. What is Electrical Work?

The term “electrical work” applies to the following tasks:

- the connection / disconnection of electrical supply wiring to / from electrical equipment.
- installing, removing, adding, testing, replacing, repairing, altering, or maintaining electrical equipment or an electrical installation.

All electrical work required to be undertaken must be by an appropriately licensed electrician engaged in accordance Contractor Management Procedure (6).

3.1.4. What is not Electrical Work?

The following activities are not considered to be “electrical work”:

- work that involves the connection of electrical equipment to the electricity supply by means of a flexible cord plug and socket outlet.
- work on a non-electrical component of the equipment if the person undertaking the work is not exposed to an electrical risk.
- the replacement of electrical equipment or electrical component of the equipment if the task can be safely performed by a person who does not have expertise in carrying out electrical work, for example, the replacement of domestic fuses and light bulbs.
- assembling, making, modifying, or repairing electrical equipment as part of a manufacturing process.
- building or repairing ducts, conduits, or troughs where electrical wiring is or will be installed if:
  - the ducts, conduits or troughs are not intended to be earthed.
  - the wiring is not energised; and
  - the work is supervised by a licensed or registered electrical worker.
- locating or mounting electrical equipment, or fixing electrical equipment in place, if this task is not performed in relation to the connection of electrical equipment to an electrical supply.
- assisting a licensed electrician to carry out electrical work if:
  - the assistant is directly supervised by the licensed electrician; and
  - the assistance does not involve physical contact with any energised electrical equipment.
- carrying out electrical work, other than work on energised electrical equipment, to meet the eligibility requirements in relation to becoming a licensed electrician.

4. RESPONSIBILITIES

Specific responsibilities for carrying out certain actions required by the CCES, have been allocated to position holders within the organisation. Such responsibilities are consistent with the obligations that the legislation places on officers, managers, supervisors, workers, and others in the workplace.

Responsibility, authority, and accountability processes have been defined in Responsibility, Authority & Accountability Procedure (12), and summarised in:

- Responsibility, Authority & Accountability Matrix – Workers (025G);
- Responsibility, Authority & Accountability Matrix – Managers & Supervisors (023G);
- Responsibility, Authority & Accountability Matrix – Officers (024G); and
- Work Health & Safety and Injury Management Policy.

You are required to familiarise yourself with this procedure to understand the obligations that you may have in relation to its implementation and to carry out your assigned actions and responsibilities.

This Procedure is to be read in conjunction with your Organisational Policies and / or Procedures.

5. PROCEDURE

5.1. Prevention of Electrical Faults

Damage, due to misuse, to electrical leads or the outer casings of electrical appliances contribute to the incidences of electric shock. The following requirements should be undertaken:

- do not pull on the lead as this will result in separation of the insulating sheath of the lead from the plug, exposing the electrical wiring and increasing the likelihood of a worker encountering electricity, always remove leads from the power outlet by the plug.
- do not drag electrical leads across the ground or other abrasive surfaces. Abrasive surfaces, such as concrete pathways, steps, and stairs, may damage the insulating sheath of the lead, exposing the electrical wiring inside.
- do not place extension cords across pedestrian walkways as extension cords pose significant trip hazards.

5.2. Identification of Hazards

Workers required to use electrical appliances / equipment, are required to conduct preoperational visual inspections of these appliances and any equipment associated with the use of these appliances / equipment, including cords, extension cord sets, and power boards.

5.3. Purchasing Electrical Appliances & Equipment

A Pre-Purchase Checklist (046F) or equivalent must be completed for all newly introduced electrical appliances / equipment prior to purchase. Domestic electrical appliances do not require a pre purchase checklist or risk assessment if used for the purpose it was designed for and as per manufacturer's recommendations. Depending on the risk associated with the electrical appliance / equipment a Plant & Equipment Checklist (010F) may be required. For further information refer to Purchasing Procedure (20).

5.4. Faulty Electrical Appliances & Equipment

5.4.1. Identification of Faulty or Damaged Electrical Appliances & Equipment

Electrical appliances and equipment determined to be either faulty or damaged must be identified to prevent use, intentional or inadvertent.

Damaged or faulty electrical appliances or equipment must be disconnected from the electricity supply and identified with a Danger Tag or Out of Service Tag and removed from service immediately.

All information fields in Danger or Out of Service Tags shall be documented. Examples of required information may include the appliance or equipment, a

description of the fault or damage, the name of the person identifying the fault or damage, and the date / time the tag was placed.

Danger or Out of Service Tags can only be removed by the person who affixed the label or an authorised person, at the completion of the necessary works.

Electrical Appliances & Equipment, tagged with a Danger Tag or Out of Service, MUST NOT BE USED.

5.4.2. Isolation of Faulty Electrical Appliances & Equipment

The disconnection of damaged or faulty appliances or equipment from the electricity supply, while effective isolation, does not ensure that the appliance or equipment will not be used until it is repaired or replaced. Faulty or damaged appliances or equipment shall be removed from the workplace, if possible, and returned only after repairs have been completed and the correct operation of the equipment verified.

If necessary, other alternatives for isolation of electrical appliances and equipment may be considered where removal of the equipment is not possible. An option may include to lock out the power cord using a “Plug Lock Out”.

5.4.3. Replacement or Repair of Electrical Appliances & Equipment

The workplace shall arrange to have the damaged or faulty electrical appliance or equipment assessed and, if viable, repaired by a competent person, for example, a licensed electrician or appliance repairer.

Only after the electrical appliances and equipment is repaired and its safe operation verified, is any isolation or lock out device to be removed (isolation or lock out devices may be removed by the competent person to affect the repairs and / or testing) and any warning tags removed.

The workplace is responsible for reinstating the equipment back into the workplace and the retention of any records provided by the repairer.

If the equipment cannot be repaired, it shall be made inoperable prior to being disposed of. A record of disposal must be recorded on the Plant & Equipment Register (050F) and Equipment Disposal / Write off Form (082F) or equivalent.

5.5. Inspection and Testing of Electrical Appliances & Equipment

5.5.1. Routine Inspection of Electrical Appliances & Equipment

The inspection of electrical appliances and equipment involves, but is not limited to, the following:

- the detection of obvious damage, defects or modifications to the electrical appliances and equipment, including accessories, connectors, plugs or extension cord sockets.
- the detection of discolouration that may indicate exposure to excessive heat, chemicals, or moisture.
- the checking that flexible cords are effectively anchored to equipment, plugs, connectors, and extension cord sockets.
- looking for damage to flexible cords (cuts or splits to the insulation, worn areas in the insulation exposing electrical wiring, exposed wiring at the cord and plug connection – refer to 4.2 Identification of Hazards).
- checking that the equipment operating controls are in good working order, that is, secure, aligned and appropriately identified.
- checking the covers and guards are secured and working in the manner intended by the manufacturer or supplier.
- checking that ventilation inlets and exhausts are unobstructed.

5.5.2. Requirements for Inspection & Testing (Test & Tag, RCD)

5.5.2.1. Determining Inspection & Testing needs

The workplace must ensure that the electrical appliances and equipment are regularly inspected and tested by a competent person if the electrical appliances and equipment are:

- supplied with electricity through an electrical socket outlet (“plug in” equipment); and
- used in an environment in which its normal use exposes it to operating conditions that are likely to result in damage to the equipment or a reduction in its expected lifespan. This includes conditions that involve exposing the electrical appliances and equipment to moisture, heat, vibration, mechanical damage, corrosive chemicals, or dust.

It is the responsibility of the workplace to ensure that electrical appliances and equipment that requires inspection and testing is identified and inspected / tested in accordance with AS / NZS 3760 In-service safety inspection and testing of electrical equipment. Table 1 below provides a summary of the type of environment / equipment to be tested and the frequency.

The workplace shall determine inspection and testing requirements for electrical appliances and equipment. This may be achieved using internal or external competent person(s). The engagement of

contractors to provide testing and tagging services shall be done in accordance with Contractor Management Procedure (6).

5.5.2.2. RCD Testing Requirements

Refer to Table 1 below to determine the frequency of testing for the worksite. This testing will be completed by a competent person. The tests are to be recorded using:

- Residual Current Device (RCD) Operating Test Time Register (049F) or equivalent and.
- Residual Current Device (RCD) Push Button Test Register (048F) or equivalent.

Refer to RCD Push Button Testing Guideline (033G) on how to complete a push button test.

5.5.2.3. Records of Inspection & Testing

The tag attached to the electrical cord of electrical appliances and equipment shall serve as a record of the equipment being tested and tagged. The tag must document the equipment, the name of the person completing the inspection and testing, the date of the inspection and testing, and the next due date.

A register of inspection and testing must be maintained. The Inspection and Testing Register (090F) or equivalent can be used.

Table 1: Summary of Type of Environment / Equipment to be Tested & Frequency
Note: Test & tagging is not required for hard wired fixed machinery & equipment

Type of environment & / or equipment	Examples	Interval between inspection and tests				
		Test & Tag Frequency	Residual current devices (RCD's)			
			Push button test – by user		Operating time and push button test	
			Portable	Fixed	Portable	Fixed
Factories, workshops, places of manufacture, assembly, maintenance, or fabrication (Agricultural Studies, Science Laboratories, Commercial Kitchens / Canteens).	Electrical machinery or equipment connected by a flexible cord and plug used in environments where items are potentially exposed to; moisture, heat, vibration, dust, mechanical or chemical damage that could result in a reduction in expected lifespan.	**6 months**	**Daily or before every use, whichever is longer**	**6 months**	**12 months**	**12 months**
Offices & Meeting Room; Common Areas; Music Rooms; Kitchens; Parishes; Libraries; Classrooms;	Electrical machinery and equipment with a flexible cord and plug that is moved during its normal use for the purpose of its operation. (Laptop & phone chargers, portable protectors, radio / speakers, and domestic vacuum cleaners). Extension leads / cords and power boards. Domestic kitchen appliances including kettles, toaster, and sandwich presses.	**12 months**	**3 months**	**6 months**	**12 months**	**12 months**
	Machinery and equipment fitted with a flexible cord and plug that is not moved during use; or is installed above a height of 2.5 metres. (Desktop computers, monitors / screens, photocopiers, printers, power whiteboards, fixed projectors, fridges, microwaves, powered roller doors and wall clocks).	**5 yearly**	**3 months**	**6 months**	**2 years**	**2 years**
	Commercial cleaning machinery and equipment (pressure cleaners, vacuum cleaners, and floor polishers).	**6 months**	**Daily or before every use whichever is the longer**	**NA**	**6 months**	**NA**
Residential type areas of hotels, residential institutions, motels, boarding houses, halls, hostels accommodation houses, and the like		**2 years**	**6 months**	**6 months**	**2 years**	**2 years**
Hire Machinery & Equipment		**3 months**	**NA**	**NA**	**3 months**	**12 months**
Repaired, serviced & second-hand equipment		**After repair or service which could affect, electrical safety, or on reintroduction to service, refer to AS/NZS 5762 In-service safety inspection and testing – Repaired electrical equipment.**				

5.5.2.4. New Electrical Equipment

New electrical appliances / equipment should be visually inspected to ensure that no damage has occurred during transport, delivery, installation, or commissioning. New appliances / equipment are to have a label "Electrical New to Service Sticker (020F)" attached and must be documented on the Electrical New to Service Equipment Register (007F) or equivalent prior to being placed into service.

5.5.3. Testing & Tagging Equipment

5.5.3.1. Calibration

Testing and tagging equipment that is owned and used by the site shall be calibrated at least every twelve (12) months and the calibration certificates kept.

5.5.3.2. Training

Any internal person using the testing and tagging equipment shall be trained in a nationally recognised course and deemed competent in the use of the equipment.

5.5.4. Extension Leads

Where extension leads are used, they must be tested and tagged and be positioned to avoid damage. This must include:

- keeping the extension lead away from water.
- where reasonably practicable, running the extension lead off the ground; and ensuring the extension lead cannot be damaged by being stuck, rubbed against, or pinched / bent.

5.5.5. Double Adaptors (Piggyback Plugs)

Double Adaptors / Piggyback Plugs are prohibited in normal work use. Exception: Piggyback Plugs can be used for incandescent lighting in drama and art areas with a supporting risk assessment completed.

5.5.6. Power boards

Power boards must have overload protection. It is preferable that each outlet on the power board has its own on / off switch. It is prohibited to plug one power board into another power board.

5.5.7. Switchboards

Switchboards must be locked and access to them controlled. They must always remain accessible (minimum of one (1) metre clearance around switchboard).

5.5.8. Circuit Breakers

Resetting of circuit breakers is not recommended and may cause fire. Circuit breakers which have tripped must be inspected by a competent person prior to resetting.

5.5.9. Medical Devices

AS / NZS 3760 In-service safety inspection and testing of electrical equipment specifically excludes medical devices and electrical devices in patient care areas. For more information see AS / NZS 3551 Management programs for medical equipment or AS / NZS 3003 Electrical Installations – Patient areas.

5.5.10. Special Events / Fetes Equipment

A documented risk assessment must be completed on all electrical equipment brought in for special events / fetes.

5.5.11. Mobile Devices

Charging of mobile devices at the workplace is not permitted unless the (240v) charging unit item has been tested & tagged. Consider setting up USB charging stations where multiple items can be charged.

5.6. Certificate of Compliance

All electrical work where hard wiring activity is undertaken (e.g., replacement / installation of power points / light switches / electrical circuit wiring etc.) must be issued with an Electrical Certificate of Compliance (COC). The sites must retain the COC for the life of the building / equipment.

5.7. Records

Documents used to manage electrical and as prescribed by this procedure will be produced in a format that allows tracking for verification and review and be in accordance with requirements detailed in Document Control Procedure (22).

5.8. Review

This procedure will be subject to a planned review by the document owner in accordance with the requirements outlined in Document Control Procedure (22). Other methods for reviewing and evaluating the performance of this procedure will include:

- audit activity.
- investigations.
- performance reports.

6. RELATED SYSTEM DOCUMENTS

6.1. Policies & Procedures

Consultation & Communication (5)

Contractor Management (6)

Document Control Procedure (22)

Hazard Management Procedure (14)

Purchasing Procedure (20)

Responsibility, Authority & Accountability Procedure (12)

WHS & Injury Management Policy

6.2. Forms & Tools

Electrical Process Flow Chart (027T)

Electrical New to Service Equipment Register (007F)

Electrical New to Service Sticker (020F)

Equipment Disposal / Write off Form (082F)

Group Legal Register (010T)

Hazardous Chemical Risk Assessment (009F)

Hazardous Manual Task Risk Assessment (047F)

Inspection & Testing Register (090F)

Plant & Equipment Checklist (010F)

Plant & Equipment Register (050F)

Pre-Purchase Checklist (046F)

Residual Current Device (RCD) Operating Test Time Register (049F)

Residual Current Device (RCD) Push Button Test Register (048F)

Risk Assessment Form (004F)

7. REFERENCES

Legislation and other requirements related to this procedure are defined in Group Legal Register (010T) which can be accessed via the Catholic Safety & Injury Management Website.

7.1. Internal Resources

RCD Push Button Testing Guideline (033G)

Responsibility Authority & Accountability Matrix – Managers & Supervisors (023G)

Responsibility, Authority & Accountability Matrix – Officers (024G)

Responsibility, Authority & Accountability Matrix – Workers (025G)

7.2. External Resources

Nil

8. AUDITABLE OUTPUTS

The following examples of records will be used to verify implementation of this procedure:

- Electrician Licenses
- Approved Electrical Appliances & Equipment Repairer / Testing and Tagging Contractor documentation e.g., licenses, approved contractor list
- Inspection and Testing Tags
- Danger / Out of Service Tags
- Work instructions
- Risk Assessments
- Pre-start Electrical Appliances & Equipment checks
- COC's
- Inspection and Testing Register (or equivalent).
- Calibration Certificate
- Training Records
- Plant & Equipment Register
- Inspection & Testing Register (090F)

9. VERSION CONTROL & CHANGE HISTORY

Version	Approved by	Approved Date	Reason for Development of Review	Next Review Date
V7	Sector Forum	May 2014	Legislation – New WHS Act & Regulations	2017
April 2015 – Document consolidated across CCES sectors				
V1	Executive Manager CSHWSA	24/04/2015	Procedure consolidation	2017
V2	Executive Manager CSHWSA	26/04/2016	Licence Level Audit	2019
V3	Executive Manager CSHWSA	22/02/2021	Scheduled Review; Reformatted.	2023
V4	Executive Manager CSHWSA	02/07/2021	Added details on calibration of testing & tagging machines. Training in use of testing & tagging machines. Competent Person to test RCD.	2024
V5	Executive Manager CSHWSA	19/07/2022	Removed picture of electric shock victim section 3.1.1 Removed section 3.1.2 Electrical Rescue Techniques Added symptoms of electric shock section 3.1.2 Added information on Domestic electrical appliances not requiring a pre-purchase checklist and removed table 1 section 5.3 Referenced table 2 to table 1 section 5.5.2.1 Added requirement to keep records of testing section 5.5.2.3	2025
V5.1	Executive Manager CSHWSA	07/10/2022	Reference Inspection & Testing Register	2025
V5.2	Director CSaIM	24/07/2024	Updated procedure numbers. Reformatted.	2025
V6	Director CSaIM	02/06/2025	Scheduled review	2030

Approved for Publication: D Nation **Date:** 2nd June 2025

Debbie Nation