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Procedure Name: **Electrical Safety Procedure**

1. Overview

The District Council of Cleve (the organisation) recognises its obligation to manage risks to health and safety associated with electrical hazards at the workplace and to make sure that, so far as is reasonably practicable, persons at work are safe from the risk of death, electrical shock or other injury caused indirectly or directly by electricity or fire caused by an electrical fault.

This procedure aims to:

- a. Ensure that the organisation's Work Health and Safety (WHS) management system conforms with legislative requirements and ReturnToWorkSA's (RTWSA) Work Health and Safety Standards for Self-Insured Employers (PSSI);
- b. Eliminate risks associated with electrical installations, equipment and work by:
 - i. Identifying reasonably foreseeable electrical hazards at the workplace and eliminating risks so far as is reasonably practicable, or where that is not reasonably practicable, minimise risks so far as is reasonably practicable by implementing the Hierarchy of Control;
 - ii. Ensuring that electrical installations and electrical equipment are maintained in safe working order, inspected and tested; and
 - iii. Requiring all electrical work performed on an electrical installation or electrical equipment to be carried out by a competent person.

This procedure applies to all workers who manage, supervise or undertake activities that involve electricity, electrical installation or electrical equipment. It does not cover the performance of electrical work which is required to be undertaken by a licensed or registered electrical worker.

2. Core Components

The core components of the organisation's Electrical Safety Procedure aim to:

- a. Implement a system for the identification of reasonably foreseeable electrical hazards and the assessment and recording of risks once identified (on a prioritised basis);
- b. Eliminate identified electrical risks, where reasonably practicable;
- c. Implement controls identified as part of a risk assessment process based on the highest level of the Hierarchy of Control that is reasonably practicable and ensure that they are maintained and reviewed in accordance with the Hazard Management Procedure;
- d. Require all electrical work to be carried out by a competent person;
- e. Implement a system and program of:
 - i. Appropriate inspection and/or testing; and
 - ii. Testing and tagging of electrical equipment;
- f. Require records to be maintained and available; and
- g. Make sure that identified corrective actions relating to electrical safety are addressed.

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3. Definitions

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| Competent person | <p>(a) For electrical work on energised electrical equipment or energised electrical installations (other than testing referred to in regulations 150 and 165): a person registered to undertake the work under the Plumbers, Gas Fitters and Electricians Act 1995; or</p> <p>[as defined by the Work Health and Safety Regulations 2012 (SA), (WHS Regulations), Regulation 5]</p> <p>(b) For any other case, a person who has necessary practical and theoretical skills, acquired through training, qualification, experience or a combination of these, to correctly undertake the required tasks.</p> <p>[as defined by the AS/NZS 3760: In service safety inspection and testing of electrical equipment, Section 1.4.4].</p> |
| Contractor | A person conducting a business or undertaking (PCBU) that carries out work or performs services under a contract for service; this includes their workers. |
| Electrical equipment | <p>Means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that:</p> <p>(a) Is used for controlling, generating, supplying, transforming or transmitting electricity at a voltage greater than extra-low voltage; or</p> <p>(b) Is operated by electricity at a voltage greater than extra-low voltage; or</p> <p>(c) Is part of an electrical installation located in an area in which the atmosphere presents a risk to health and safety from fire or explosion; or</p> <p>(d) Is, or is part of, an active impressed current cathodic protection system within the meaning of AS 2832.1 (Cathodic protection of metals—Pipes and cables).</p> <p>Electrical equipment does not include any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that is part of a motor vehicle if:</p> <p>(a) The equipment is part of a unit of the vehicle that provides propulsion for the vehicle; or</p> <p>(b) The electricity source for the equipment is a unit of the vehicle that provides propulsion for the vehicle.</p> <p>Motor vehicle means a vehicle that is built to be propelled by a motor that forms part of the vehicle.</p> <p>[as defined by the WHS Regulations, Regulation 144]</p> |
| Electrical installation | <p>Means a group of items of electrical equipment that:</p> <p>(a) Are permanently electrically connected together; and</p> <p>(b) Can be supplied with electricity from the works of an electricity supply authority or from a generating source.</p> |

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| | [as defined by the WHS Regulations, Regulation 145] |
| Electrical work | <p>Means—</p> <p>(a) Connecting electricity supply wiring to electrical equipment or disconnecting electricity supply wiring from electrical equipment; or</p> <p>(b) Installing, removing, adding, testing, replacing, repairing, altering or maintaining electrical equipment or an electrical installation.</p> <p>[as defined by the WHS Regulations, Regulation 146(1) and subject to the exclusions contained in Regulation 146(2)]</p> |
| Energised (live) | <p>Means connected to a source of electrical supply or subject to hazardous induced or capacitive voltages</p> <p>[as defined by the Code Of Practice: Managing Electrical Risks in the Workplace, Appendix A]</p> |
| Health and Safety Committee (HSC) known as the District Council of Cleve Safety Committee | <p>The functions of a Health and Safety Committee are:</p> <p>(a) to facilitate co-operation between Council and workers in instigating, developing and carrying out measures designed to ensure the workers' health and safety at work;</p> <p>(b) to assist in developing standards, rules and procedures relating to health and safety that are to be followed at the workplace; and</p> <p>(c) any other functions prescribed by the regulations or agreed between Council and the committee.</p> <p>[Work Health and Safety Act 2012 Section 77]</p> |
| Hierarchy of control | <p>If it is not reasonably practicable for risks to health and safety to be eliminated, risks must be minimised, so far as is reasonably practicable, by doing one or more of the following:</p> <p>(a) Substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk;</p> <p>(b) Isolating the hazard from any person exposed to it; and</p> <p>(c) Implementing engineering controls.</p> <p>If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.</p> <p>If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable personal protective equipment.</p> <p>[as defined by the WHS Regulations, Regulation 36]</p> |
| Hostile operating environment | <p>An environment where:</p> <p>(a) Electrical equipment is used in an environment in which the normal use of electrical equipment exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span, including conditions that involve exposure to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust;</p> |

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| | <p>(b) Electrical equipment is moved between different locations in circumstances where damage to the equipment or to a flexible electricity supply cord is reasonably likely;</p> <p>(c) Electrical equipment is frequently moved during its normal use; or</p> <p>(d) Electrical equipment forms part of, or is used in connection with, an amusement device.</p> <p>[see the WHS Regulations, Regulation 164]</p> <p>Note: this extends to construction or demolition sites.</p> |
| PCBU | <p>Person Conducting a Business or Undertaking.</p> <p>[as defined in the Work Health and Safety Act 2012 (SA) (WHS Act), Section 5]</p> |
| Personal protective equipment (PPE) | <p>Anything used or worn by a person to minimise risk to the person's health and safety, including air supplied respiratory equipment</p> <p>[as defined by the WHS Regulations, Regulation 5]</p> |
| Plant | <p>Includes-</p> <p>(a) Any machinery, equipment, appliance, container, implement and tool; and</p> <p>(b) Any component of any of those things; and</p> <p>(c) Anything fitted or connected to any of those things.</p> <p>[as defined by the WHS Act, Section 4]</p> |
| Residual current device (RCD) | <p>A device intended to isolate supply to protected circuits, socket outlets or electrical equipment in the event of a current flow to earth that exceeds a predetermined value. The RCD may be fixed or portable.</p> <p>[as defined by Code of Practice: Managing electrical risks in the workplace, Appendix A]</p> |
| <p>Tiger tails</p>  | <p>Plastic pipe type cable covers used to provide a useful visual indication to people working in the vicinity of overhead electric lines or stay wires. Tiger tails do not insulate wires.</p> <p>[Source: Safe Work Australia Definitions for the General Guide for Working in the Vicinity of Overhead and Underground Electric Lines and Supporting Specific Guides]</p> |
| Isolated | <p>Means disconnected from all possible sources of electricity supply and rendered incapable of being made energised without premeditated and deliberate action.</p> <p>[as defined by the Code Of Practice: Managing Electrical Risks in the Workplace, Appendix A]</p> |
| Shall | <p>The use of the word 'shall' indicates that a requirement is mandatory.</p> |

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| Should | The use of the word 'should' indicates that the relevant sentence is not a requirement but is advisory. |
| Voltage | <p>Differences of electric potential, normally existing between conductors and earth as follows:</p> <p>(a) Extra low voltage (ELV) – not exceeding 50V a.c. or 120V ripple free d.c.</p> <p>(b) Low Voltage (LV) – exceeding extra-low voltage, but not exceeding 1000V a.c. or 1500V d.c</p> <p>(c) High Voltage (HV) – voltage that exceeds low voltage</p> <p>[as defined by AS/NZS 3760 and Code of Practice: Managing electrical risks in the workplace, Appendix A]</p> |

4. Procedure

4.1. Register of Electrical Equipment

4.1.1. The Assistant Works Manager will maintain a register of electrical equipment at the workplace.

- a. The register may be a section of the plant register or a separate register of electrical equipment;
- b. The register should include electrical equipment that is supplied with electricity through an electrical socket outlet, indicating whether it is used in a hostile operating environment, matched to:
 - i. A record of formal inspections and tests;
 - ii. A repairs register; and
 - iii. A record of all faulty equipment showing details of services or corrective actions.

4.1.2. The register should be readily available in a central location.

Each worksite should have access to the part of the register relevant to the electrical equipment that is supplied with electricity through an electrical socket outlet for their work area and/or activities.

4.1.3. Department managers will notify the Assistant Works Manager when electrical equipment, which is under their control, is introduced, modified, altered or disposed of, who will update the register to reflect the changes made.

4.2. Identification of Electrical Hazards

4.2.1. Electrical hazards should be identified in accordance with the Hazard Management and Plant Procedures and in consultation with workers, their representatives and other duty holders (if relevant). This includes, but is not limited to, identification of electrical hazards associated with work undertaken:

- a. At the organisation's workplaces; and

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b. By volunteers.

4.2.2. Hazards arising from electrical equipment or installations may arise from:

- a. The design, construction, installation, maintenance and testing of electrical equipment or electrical installations;
- b. Design change or modification;
- c. Inadequate or inactive electrical protection;
- d. Where and how electrical equipment is used (for example, there is a greater risk of damage if used outdoors or in a workshop environment);
- e. Electrical equipment being used in an area in which the atmosphere presents a risk to health and safety from fire or explosion (for example, in confined spaces);
- f. The type of electrical equipment (for example, 'plug in' electrical equipment that is moved around from site to site, including extension leads, is particularly liable to damage);
- g. The age of electrical equipment and electrical installations;
- h. Work carried out on or near electrical equipment or electrical installations, including electric overhead lines or underground electric services; and
- i. Exposure to high electromagnetic fields for workers with some medical conditions (for example, pacemakers).

4.2.3. The hazard identification process must be undertaken before:

- a. The connection and supply of electricity to a new electrical installation at a workplace;
- b. The modification, maintenance or repair of an existing supply of electricity to or at a workplace, or of any existing electrical installations or equipment at a workplace;
- c. Any electrical plant is installed or operated; and
- d. The introduction or modification of a work practice or procedure associated with electrical equipment that may present a risk to health and safety.

Note: The Preventative Actions Checklist in Appendix A will assist in the identification of hazards associated with electrical work.

4.3. Risk Assessment

- 4.3.1. The Works Manager should form a team to undertake the risk assessment. The team should consist of a competent person to lead the risk assessment process, workers who are involved in the activity to be assessed, a HSR (where one exists), the manager or supervisor and other stakeholders or experts, where relevant.
- 4.3.2. The risk assessment should be undertaken in accordance with the Hazard Management and Plant Procedures.
- 4.3.3. For work on energised electrical equipment, a risk assessment must be completed and documented by a competent person and controls put in place before work commences.

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4.4. Risk Control

- 4.4.1. Controls should be implemented to eliminate, so far as is reasonably practicable, identified risks to health and safety.
- 4.4.2. If it is not reasonably practicable to eliminate risks, risk controls will be selected in descending order from the Hierarchy of Control and in accordance with the Hazard Management Procedure.
- 4.4.3. The risk assessment must clearly indicate what control measures are to be used.

NOTE: RTWSA Self-insured workplace health and safety evaluation guidelines for sub-element 3.8.3 of the PSSI state that the rationale for utilising a particular control in preference to others in the Hierarchy of Control should be evident.

4.4.4. Examples of risk control include, but are not limited to:

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| Elimination | The most effective control measure is to remove the hazard or hazardous work practice. By designing-in or designing-out certain features, hazards may be eliminated. | <ul style="list-style-type: none"> • Remove electrical equipment • Design in or out certain features |
| Substitution | Replacing a hazardous process or material with one that is less hazardous will reduce the hazard, and hence the risk. For example, it may be reasonably practicable to use extra low voltage electrical equipment, such as a battery-operated tool, rather than a tool that is plugged into mains electricity. | <ul style="list-style-type: none"> • Replace electric tools with battery operated or pneumatic tools in wet environments • Use non-conductive scaffolding or ladders instead of metal |
| Isolation | Preventing workers from coming into contact with the source of an electrical hazard will reduce the relevant risks. | <ul style="list-style-type: none"> • Isolate, lock out and tag out the source of electrical energy during operations or maintenance functions • Erect a physical barrier around the work area • Restrict access to electrical switchboards and electrical equipment rooms |
| Engineering | Use engineering control measures to minimise the risk, for example: <ul style="list-style-type: none"> • Installing residual current devices (RCD) to reduce the risk of receiving a fatal electric shock or • Using appropriately enclosed electrical equipment appropriate for specific environmental conditions. | <ul style="list-style-type: none"> • Use residual current devices (RCDs) • Use equipment with ingress protection in industrial or damp environments |

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| Administrative | <p>Administrative controls involve the use of safe work practices to control the risk, for example, establishing exclusion zones, use of permits and warning signs.</p> <p>Administrative controls and PPE do nothing to change the hazard itself. They rely on people behaving as expected and require a high level of supervision. Exclusive reliance on administrative controls and PPE must only occur where other measures are not reasonably practicable or as an interim control while the preferred control measure is being implemented.</p> | <ul style="list-style-type: none"> • Tag and test electrical equipment • Identify electrical services before work commences e.g., dial before you dig, cable locator use for walls • Ban the use of electrical equipment in the rain • Use tiger tails • Apply minimum safe approach distances when working near overhead power lines • Use permits and warning signs |
| Personal protective equipment | <p>PPE includes protective eyewear, insulated gloves, hard hats, aprons and breathing protection. Most forms of PPE are not relevant to minimising electrical risks in workplaces, except in relation to energized electrical work.</p> | <ul style="list-style-type: none"> • This includes, for example, choosing insulating gloves, mats and tools, hard hat, aprons and breathing protection |

4.4.5. Implement the controls identified by the risk assessment before work commences.

Any hazards that are unable to be immediately controlled within the risk assessment process should be transferred to the Hazard Profile/Risk/Corrective and Preventative Action (CAPA) Register for further action and management. Work should not commence until all selected controls are in place.

4.4.6. Each person involved in the job should sign their acknowledgement of the risk assessment prior to work commencing.

4.4.7. The Works Manager or in that person's absence the Assistant Works Manager should inform relevant persons about the control measures selected or corrective actions that have been implemented as a result of the hazard identification and risk assessment process for electrical safety. Tool Box meeting minutes and/or sign off on risk assessments/safe work instructions should demonstrate that this has occurred.

4.4.8. The Works Manager, or in their absence the Assistant Works Manager, shall:

- a. Check that any new hazards that may have been introduced by the selected controls methods are identified by:
 - i. Monitoring and evaluating controls for effectiveness;
 - ii. Recommencing the risk assessment process, outlined at section 4.3 above, if:
 - New electrical hazards are identified;
 - The measure does not control the risk it was implemented to control, so far as is reasonably practicable;

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- There is a proposed change at the workplace that is likely to give rise to a new or different risk to health or safety that the measure may not effectively control; or
 - The results of consultation indicate that a review is necessary, or a Health and Safety Representative requests a review;
- b. Communicate the outcomes of the risk assessment process within the department or work group and to the Health and Safety Committee, as required; and
 - c. Retain completed risk assessments; and
 - d. Consult and coordinate activities with other PCBUs who are affected by electrical work and/or undertaking electrical work, so far as is reasonably practicable, if their duty of care overlaps.

4.5. Electrical Installation

- 4.5.1. The Works Manager will confirm that the safety of the organisation's electrical installations is maintained in accordance with legislative requirements and the relevant Australian Standards (refer to Section 9: References).
- 4.5.2. Electrical work performed on any electrical installation at the workplace shall be carried out by a competent person licensed for the work to be undertaken under the Plumbers, Gas Fitters and Electricians Act 1995. The competent person must provide a signed certificate of compliance.
- 4.5.3. Examinations and tests of the electrical installation shall be carried out as required by the Electricity (General) Regulations 2012 and records retained.
- 4.5.4. Access to electrical switchboards, electrical equipment rooms and any other nominated areas shall be locked and-restricted to authorised persons.

4.6. RCD Protection

- 4.6.1. The management team should make sure, so far as is reasonably practicable, that electrical risk associated with the supply of electricity to 'plug in' electrical equipment (i.e. through a socket outlet) is minimised by the use of an appropriate RCD in hostile work environments. Common examples of electrical equipment requiring an RCD include:
 - a. Hand-held electrical equipment, for example, drills, saws, hair dryers, curling wands and electrical knives;
 - b. Electrical equipment that is moved while in operation, including jackhammers, electric lawn mowers, floor polishers and extension cords; and
 - c. Electrical equipment that is moved between jobs in ways that could result in damage to the equipment, for example, electric welders, electric cement mixers, portable bench saws and extension cords.
- 4.6.2. The requirement for an RCD does not apply where:
 - d. The supply of electricity to the electrical equipment

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- i. Does not exceed 50 volts alternating current; or
- ii. Is direct current (DC), or
- iii. Is provided through an isolating transformer that provides at least an equivalent level of protection (i.e. complies with AS/NZS 61558 - Safety of transformers, reactors, power supply units and combinations thereof - general requirements and tests); or
- iv. Is provided from a non-earthed socket outlet supplied by an isolated winding portable generator that provides at least an equivalent level of protection (i.e. complies with AS 2790 - Electricity generating sets—transportable (up to 25 kW)).

4.6.3. The Works Manager is responsible for making sure that:

- a. RCD testing is undertaken by a competent person, and where relevant, in accordance with the intervals outlined in AS/NZS 3760: In-service safety inspection and testing of electrical equipment;
- b. Persons using portable RCDs are instructed in their use and maintenance;
- c. If an RCD is found to be faulty it should be taken out of service and replaced as soon as possible;
- d. The tripping function of portable RCDs is checked before use by operating the 'trip test' button; and
- e. Records of the results of the testing (other than the daily push button test for portable RCDs) and corrective action processes are retained.

4.7. Electrical Equipment

4.7.1. Purchase and use

The purchase and use of electrical equipment will be subject to specific risk assessment, which should include the identification and assessment of electrical hazards, including the environment in which it is to be used.

4.7.2. Inspection and testing

The Works Manager or Assistant Works Manager will make sure a competent person undertakes inspection and testing activities for electrical equipment, as follows:

- a. When new electrical equipment is purchased, the supplier is deemed responsible for the initial electrical safety. Subject to 4.7.2b, new electrical equipment does not require testing, but the department manager responsible for its purchase should make sure it is visually inspected to ensure that no damage has occurred during transport, delivery, installation or commissioning;
- b. If the new electrical equipment is to be used in a hostile operating environment, it shall be inspected and fitted with a tag stating:
 - i. That the equipment is 'new to service';
 - ii. The date of entry into service;

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- iii. The date when the first electrical safety test is due; and
 - iv. That the equipment has not been tested.
- c. Electrical equipment must be regularly inspected, tested and tagged by a competent person after taking into account:
- i. Information provided by the designer or manufacturer of the electrical equipment;
 - ii. Any hazard identification and risk assessment process that is relevant to the use of the electrical equipment in its intended work environment; and
 - iii. Guidance from AS/NZS 3760: In service safety inspection and testing of electrical equipment (refer to Appendix B for indicative testing and inspection intervals for electrical equipment.)
- d. Second-hand electrical equipment requires inspection and testing before its first use.
- 4.7.3. The use of electrical equipment without a current test tag in a hostile operating environment is not permitted.
- a. Prior to use of electrical equipment, the operator must check that the electrical equipment has a current test tag and, when required, record this check on the pre-start checklist.
 - b. If a test tag is not fitted or is out of date, follow the requirements of step 4.7.6 below.
- 4.7.4. Persons managing contracts and/or contractors should confirm that any electrical equipment used by contractors has been tested and tagged prior to work commencing.
- 4.7.5. Workers operating electrical equipment are required to follow the training and instructions in place (e.g., following manufacturer's requirements and/or safe work instructions, undertaking pre-operational checks, use of permits if indicated, etc.).
- 4.7.6. All workers should check the physical condition of electrical equipment they use, including the lead and plug connections, prior to starting work.
- 4.7.7. If an equipment safety switch trips once, workers should check the physical condition of the electrical equipment before re-setting the switch. If the trip repeats, an electrician is required to review the equipment and the following process (as per 4.7.8 and 4.7.9) should be applied.
- 4.7.8. If a hazard is identified prior to or during use such as, but not limited to, frayed or damaged electrical cords, faults in functioning, or no current test tag:
- a. The electrical equipment should be turned off or otherwise isolated and tagged with an Out of Service tag, in accordance with the Isolation, Lock Out, Tag Out Procedure, and removed from service until a competent person determines that it is safe for use; and
 - b. The worker shall make sure, as far as is reasonably practicable, that the department manager or supervisor is advised of electrical equipment that has been withdrawn from service.

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4.7.9. Inspection, testing, maintenance or repair activities shall be undertaken by competent persons in accordance with legislative requirements, manufacturer's instructions, safe work instructions and documented maintenance schedules. Records of inspection, testing, maintenance or repair activities shall be retained.

4.7.10. When identified as a requirement in the risk assessment process, a permit for work shall be issued prior to work commencing.

4.8. Controls for Work in the Proximity of Overhead or Underground Electric Lines

4.8.1. Any person required to carry out work that may involve a reasonably foreseeable danger of accidental direct contact with exposed live conductors or exposed live parts of electrical equipment should meet the training requirements of section 5.4 of this procedure.

4.8.2. When working, using cranes (including earthmoving machinery and elevating work platforms), operating machinery or erecting buildings and structures including scaffolds near overhead powerlines, the documented risk assessment must consider the need for Tiger Tails to be installed on the closest low voltage lines. If Tiger Tails are required, SA Power Networks should be contacted to arrange installation. [Note: Tiger Tails are only visual indicators and do not insulate the powerline. They cannot be used on high voltage lines]. When using Tiger Tails on powerlines, legal clearance distances must be maintained.

4.8.3. To operate cranes and elevating machinery safely near powerlines at the minimum clearance required by the Electricity (General) Regulations 2012 and referenced in guidance material from the Office of The Technical Regulator (OTR), Safe Work Australia and Department for Transport, Energy and Infrastructure (refer to Section 9: References):

- a. The voltage must be identified; and
- b. A spotter (competent person who is suitably qualified (whether by experience, training, or both) with the sole duty of observing and warning against unsafe approach of the crane, its lifting attachment or its load to powerlines) carries out spotting duties at all times; and
- c. A documented risk assessment is carried out before any work commences, in consultation with all relevant parties involved in the work; and
- d. The electricity network operator is notified before commencing work (and where necessary a Request for Network Access is completed); and
- e. Any conditions specified by the electricity network operator or OTR must be complied with.

4.8.4. In addition to the minimum clearance distances set out in the Electricity (General) Regulations 2012 for machinery and structures, there are safe approach limits to be maintained by people working near powerlines (refer to Table 1 of Working Safely Near Overhead Power Lines.)

4.8.5 The minimum safe approach limit is measured from the closest conductor on the powerline to the closest part of the person. This includes any article of clothing worn by the person or conductive object held or carried by the person.



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- 4.8.6. In some circumstances the clearances specified in AS/NZS 4576: Guidelines for Scaffolding may be less than those prescribed in the Electricity (General) Regulations 2012, in which case the prescribed distances of the Regulations must be complied with.
- 4.8.7. All underground power supply lines are to be accurately located before any excavation work commences:
- The person supervising the task should make sure Dial Before You Dig has been contacted on 1100 or online for details of underground cables; and
 - A pipe and cable locator device may be used to identify buried services
 - A Request for Network Access may be required when digging in proximity to underground cables.
- 4.8.8. If a task requires digging deeper than 30 centimetres within three metres of a stobie pole, the supervisor must obtain a written permission from the electricity network operator.
- 4.8.9. The ground level directly under powerlines must not be raised if it reduces the ground clearance to less than that prescribed by the Regulations.

4.9. Electrical Safety at Events

- 4.9.1. It was identified that Councils required specific guidance in relation to electrical safety at events and this was developed in conjunction with the OTR and SafeWork SA. This is available in Appendix C.

4.10. Accidents or Incidents Involving Electricity

- 4.10.1 A first aid officer must not put themselves at risk to deliver first aid when electricity is involved. If the situation is hazardous and cannot be made safe for the delivery of first aid, the first aid officer should contact emergency services to take control of the situation.
- 4.10.2 Any person suspected of receiving an electrical shock should be taken for medical assessment regardless of how well they feel. Any worker involved in an incident involving electricity should report the incident to their manager as soon as reasonably practicable. The department manager should immediately notify Manager Corporate Services, who will ascertain whether statutory reporting to SafeWork SA or the OTR is required.
- 4.10.3 If a notifiable incident occurs, namely:
- The death of a person; or
 - A serious Injury or illness of a person; or
 - A dangerous incident
- a report must be made by the Manager Corporate Services as follows:
- A notifiable incident is reported to SafeWork SA by the fastest possible means (telephone 1800 777 209 - 24 hours a day) immediately after becoming aware that a notifiable incident has occurred.

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- b. Any incident occurring that involves electricity or an electric shock, gas or plumbing is reported to the OTR (telephone: 8226 5518 (Business Hours) or 1800 558 811 (After Hours)):
 - i. In the case of a death resulting from the incident - immediately by telephone
 - ii. In the case of a person requiring medical assistance resulting from the incident - within one working day of the incident
 - iii. In any other case that involves electricity - within ten working days of the incident
 - iv. Gas incidents resulting in damage to property of \$5,000 or more – within ten working days of the incident
 - v. Gas incidents involving a gas infrastructure pipeline (operating above 1050 kPa) resulting in any injury or damage to property, or incidents requiring the attendance of a fire brigade – within one month from the date of the incident.
 - vi. In the case of Water or Sewerage system incidents:
 - vii. For Priority type 1 incidents – Verbal notification immediately and written notification within 24 hours
 - viii. For Type 1 incidents - Verbal notification within 3 hours and written notification within 24 hours
 - ix. For Type 2 incidents - Verbal notification not required and written notification within 10 working days. Further guidance can be found [here](#) (Dept. of State development: Water and Sewerage Infrastructure Incident Notification and Communication Protocol V3 – July 2015).

4.10.4 The Incident Reporting and Investigation Procedure must be complied with, including the requirement that the site where the incident occurred is not disturbed until an inspector arrives at the site or any earlier time that an inspector directs.

4.10.5 Whenever any statutory reports have been made, the Manager Corporate Services should ensure that the LGAWCS has been notified.

4.10.6 Any claim for worker's compensation should be reported in accordance with the Workplace Return to Work Procedure.

4.10.7 The Incident Reporting and Investigation Procedure must also be complied with, including the requirement that the site where the incident occurred is not disturbed until an inspector arrives at the site or any earlier time that an inspector directs.

4.11. Monitoring and Evaluation

4.11.1 Department managers should review and revise any existing risk control measures related to electrical safety, using the same methods as the initial hazard identification process:

- a. When the control measure does not minimise the risk so far as is reasonably practicable;
- b. Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control;

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- c. If a new hazard or risk is identified; or
 - d. If the results of consultation indicate that a review is necessary or a Health and Safety Representative requests a review.
- 4.11.2 Any electrical installation, electrical equipment, materials, equipment or apparatus used in hostile operating environments or when indicated by the manufacturer shall be subject to regular inspection and testing and corrective actions applied, when relevant.
- 4.11.3 The Health and Safety Committee must monitor the Hazard Profile/Risk/Corrective and Preventative Action (CAPA) Register (including any issues of an electrical nature) during its meetings and refer outstanding items requiring direction or enforcement to the management team.
- 4.11.4 The management team must:
- a. Review electrical hazard and incident statistics, audit results, legislative changes and other information relating to the electrical safety process and direct action when required. Minutes should record outcomes of discussion and actions undertaken;
 - b. Include the Electrical Safety Procedure as part of the ongoing management review process and report the findings of internal audits into the Electrical Safety Procedure, as relevant; and
 - c. Set, monitor and review objectives, targets and performance indicators for the electrical safety program(s) as relevant.

5. Training

- 5.1. The training needs analysis (TNA) should identify the electrical safety training needs of workers, having regard to:
- 5.1.1. The nature of the work carried out by the worker;
 - 5.1.2. The nature of any risks associated with the work at the time the information, training or instruction is provided; and
 - 5.1.3. The control measures implemented.
- 5.2. The following types of training should be considered for inclusion on the TNA:
- 5.2.1. Induction training – workers and contractors, where relevant, should have the organisation’s requirements for electrical safety explained to them during the induction process;
 - 5.2.2. Risk assessment – workers undertaking risk assessments should have specific training that includes legislative requirements for electrical safety and/or the risk assessment should involve a competent person (in electrical safety requirements);
 - 5.2.3. Work-specific training - to ensure that workers carrying out particular work are trained on any electrical and other risks specific to the work, and the use of specialist equipment (e.g., locators, testing equipment, etc.) as appropriate;
 - 5.2.4. Use of portable RCDs - workers using portable RCDs should be instructed in their use and maintenance;

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- 5.2.5. Inspection and testing – for persons carrying out any inspection and/or testing of electrical equipment;
 - 5.2.6. Supervisor and management training - to ensure that safety issues are appropriately managed at the workplace;
 - 5.2.7. Emergency procedure training - to ensure workers know what to do in the event of an emergency, for example, procedures to follow if a person receives an electric shock;
 - 5.2.8. First aid training - to ensure appropriate procedures are followed for administering first aid, for example, proper treatment for electric shock;
 - 5.2.9. Electrical rescue and resuscitation training for safety observers; and
 - 5.2.10. Ongoing or refresher training - to ensure that training is repeated as appropriate on a periodic basis.
- 5.3. Any person required to carry out electrical work should be a competent person who must be, if required by the Plumbers, Gas Fitters and Electricians Act 1995, licensed under that Act.
- 5.4. Work involving a danger of accidental direct contact with exposed live conductors
- 5.4.1. In the case of work involving a danger of accidental direct contact with exposed live conductors or exposed live parts of electrical equipment:
 - a. The work must only be carried out by a person who is competent and qualified to carry out the work; and
 - b. Except where the contrary is shown by reference to generally accepted industry practices or the particular circumstances of the case, it will be presumed that safe work practices require the person to carry out the work with a competent assistant suitably trained in the work and –
 - i. In resuscitation; and
 - ii. In releasing persons from live electrical apparatus; and
 - iii. If appropriate, in rescuing persons from poles, structures, elevated work platforms or confined spaces.

[as prescribed by the Electricity (General) Regulations 2012 (63)].
 - 5.4.2 Persons required to carry out, or help in carrying out, electrical work must be suitably trained in rescue and resuscitation in accordance with the requirements of the Technical Regulator [as prescribed by the Electricity (General) Regulations 2012 (68)].

6. Records

The following records shall be maintained:

- 6.1 Electrical equipment register,
- 6.2 Electrical equipment risk assessments and Safe Work Instructions (SWIs),
- 6.3 Purchase of hire documentation, including operation manuals,
- 6.4 Training records, licences and other competency records,

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- 6.5 Electrical equipment inspection, testing and maintenance and corrective action records, and
- 6.6 Electrical equipment registration and certification records.

All records must be managed in line with the current version of General Disposal Schedule 40 for Local Government.

7. Responsibilities

7.1. The Management Team is Accountable for:

- 7.1.1. Checking that the organisation manages electrical hazards in accordance with legislative requirements;
- 7.1.2. Approving reasonably practicable expenditure necessary for electrical safety upon receipt of expenditure requests;
- 7.1.3. Setting objectives, targets and performance indicators for any electrical safety program(s), as relevant;
- 7.1.4. Providing managers and supervisors with training which enables them to:
 - a. Apply the requirements of the electrical safety legislation and this procedure to the areas and activities under their control, and
 - b. Provide adequate training and supervision to the persons under their control;
- 7.1.5. Consulting with other PCBUs, so far as is reasonably practicable, if their duty of care overlaps;
- 7.1.6. Checking, so far as is reasonably practicable, that reasonably foreseeable electrical safety hazards within each department are identified, assessed and controlled when elimination is not practicable;
- 7.1.7. Monitoring the Hazard Profile/Risk/CAPA Register and enforcing close out of items when required;
- 7.1.8. Reviewing the effectiveness of the Electrical Safety Procedure; and
- 7.1.9. Including electrical safety in the management review process.

7.2. Managers and Supervisors are Accountable for:

- 7.2.1. Providing training, information, instruction and supervision to workers and other stakeholders to check that:
 - a. Competency and where relevant, licencing is demonstrated and maintained; and
 - b. They understand and can apply the Electrical Safety Procedure and any relevant SWIs in relation to the tasks they undertake.
- 7.2.2. Notifying the Assistant Works Manager when electrical equipment (which is under their control) is introduced, modified, altered or disposed of;

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- 7.2.3. Checking that reasonably foreseeable electrical hazards within their department or the tasks workers or others are required to undertake are identified, assessed and recorded on the Hazard Profile/Risk/CAPA Registers, in consultation with workers or their representatives;
 - 7.2.4. Implementing controls, in consultation with workers or their representatives or other stakeholders, using the Hierarchy of Control, and evaluating and reviewing them for effectiveness;
 - 7.2.5. Communicating the outcomes of risk assessments within the department or work groups and across the organisation as required;
 - 7.2.6. Checking that any newly-purchased electrical equipment is tagged on entry to service, if required;
 - 7.2.7. Checking that faulty electrical equipment is immediately removed from service and tagged with an Out of Service tag;
 - 7.2.8. Logging electrical safety issues with maintenance as soon as they are identified;
 - 7.2.9. Closing out CAPA Register items within designated time frames;
 - 7.2.10. Retaining records as required (within the organisation's records management system);
 - 7.2.11. Seeking expert advice when a need is identified; and
 - 7.2.12. Providing required reports to the Health and Safety Committee and management team.
- 7.3. The Assistant Works Manager is Accountable for:
- 7.3.1. Maintaining the currency of the electrical equipment register;
 - 7.3.2. Checking that portable electrical equipment issued to staff has a tag indicating current electrical testing compliance when required;
 - 7.3.3. Ensuring a competent person undertakes required testing of electrical equipment on site and that the electrical equipment that passes the test is tagged with a non-metallic, non-reusable tag;
 - 7.3.4. Checking that any electrical equipment identified as faulty during testing is withdrawn from service and tagged with an Out of Service tag until repairs are completed or disposal occurs;
 - 7.3.5. Arranging required inspections, testing and maintenance and retaining records;
 - 7.3.6. Implementing (in conjunction with relevant managers and supervisors) any corrective or preventative actions required for the continual improvement of the electrical safety process; and
 - 7.3.7. Checking that statutory reporting requirements have been met in relation to any electrical incidents at work.
- 7.4. The Manager Corporate Services is Accountable for:
- 7.4.1. Ascertaining whether statutory reporting to SafeWork SA or the OTR is required in the event of an accident or incident involving electricity; and

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7.4.2. Notifying and preparing reports for the relevant bodies (as outlined in Section 4.10) in the event of a notifiable incident.

7.5. Workers are Accountable for:

7.5.1. Attending training when required;

7.5.2. Following any reasonable instruction related to electrical safety;

7.5.3. Only using electrical equipment if it is within their level of competency, job role and the equipment has a current test tag (if required);

7.5.4. Applying an Out of Service tag to electrical equipment that is faulty or does not have a required current test tag, immediately removing it from service and completing a maintenance request;

7.5.5. Using, testing and maintaining a portable RCD as instructed; and

7.5.6. Reporting any hazardous situations or safety problems immediately to their manager.

7.6. The Health and Safety Committee (HSC) is Accountable for:

7.6.1. Facilitating consultation between management and relevant workers in matters relating to electrical safety; and

7.6.2. Monitoring the Hazard Profile/Risk/CAPA Registers, and referring issues that require direction or enforcement to the management team.

7.7. Health and Safety Representatives (HSRs) may:

7.7.1. Facilitate consultation between department managers and workers in relation to WHS issues that affect the workgroup that they represent; and

7.7.2. Request a review of a control measure in the circumstances outlined in the Hazard Management Procedure.

8. Review

8.1. The Electrical Safety Procedure will be reviewed by the management team, in consultation with workers or their representatives, every three (3) years [or alternative interval] or more frequently if legislation or organisational needs change. This will include a review of:

8.1.1. Feedback from managers, workers, HSRs, HSC, contractors or others;

8.1.2. Legislative compliance;

8.1.3. PSSI;

8.1.4. LGAWCS guidance;

8.1.5. Internal or external audit findings;

8.1.6. Incident and hazard reports, claims costs and trends; and

8.1.7. Any other relevant information.

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8.2. The reviews may result in preventative and/or corrective actions being implemented or revision of this document.

9. References

Work Health and Safety Act 2012

Work Health and Safety Regulations 2012

General Disposal Schedule 40 for Local Government

ReturntoWorkSA: Work Health and Safety standards for Self Insured Employers, which includes the Performance Standards for Self Insurers (PSSI)

Electricity Act 1996

Electricity (General) Regulations 2012

Plumbers, Gas Fitters and Electricians Act 1995

Code of Practice: How to Manage Work Health and Safety Risks

Code of Practice: Managing Electrical Risks in the Workplace

Code of Practice: Work Health and Safety Consultation Cooperation and Coordination

Guideline: Worker Representation and Participation Guide

Office of the Technical Regulator: Working Safely Near Overhead Power Lines

SA Power Networks: Working Around Overhead Powerlines

Safe Work Australia: General Guide for Working in the Vicinity of Overhead and Underground Electric Lines

Safe Work Australia: Guide for Low Voltage Overhead Electric Lines Near Structures

Safe Work Australia: Guide for Operating Cranes and Mobile Plant near Overhead Electric Lines

Safe Work Australia: Information Sheet: Tree and Vegetation Management near Overhead Electric Lines

Safe Work Australia: Information Sheet: Scaffolding Work near Overhead Electric Lines

Safe Work Australia: Information Sheet: Definitions Overhead Electric Lines

Safe Work Australia: Overhead Underground Electric Lines General Guide

Safe Work Australia: Information Sheet: Overhead Underground Electric Lines

Safe Work Australia: Guide to Transporting High Loads

Australian Standard AS 2832.1: Cathodic protection of metals – Pipes and cables

AS 2790: Electricity generating sets – Transportable (up to 25kW)

Australian/New Zealand Standard AS/NZS 3000: Electrical installations (known as the Australian/New Zealand Wiring Rules)

Procedure Name: **Electrical Safety Procedure**

AS/NZS 3760: In-Service safety inspection and testing of electrical equipment

AS/NZS 3012: Electrical installations-construction and demolition sites

AS/NZS 4576: Guidelines for scaffolding

AS/NZS 61558: Safety of transformers, reactors, power supply units and combinations thereof - general requirements and tests

10. Related Documents

Hazard Management Procedure

Plant Procedure

Isolation, Lock Out, Tag Out Procedure

Incident Reporting and Investigation Procedure

WHS Workplace Emergency Management Procedure

First Aid Procedure

Hazard Profile/Risk/CAPA Registers

Test and Tag of Electrical Equipment Register

Residual Current Device (RCD) Test Register

Electrical inspection, testing, maintenance and corrective action records

SIGNED:

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Chief Executive Officer

Date: __/__/2020

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Chairperson, Health and Safety
Committee (HSC)

Date: __/__/2020



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11. Review History

| Document History: | Version No: | Issue Date: | Description of Change: |
|-------------------|-------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 1.0 | 26/08/2010 | New Document |
| | 2.0 | 17/12/2013 | Document History section added. Terminology changes to reflect 2012 WHS Act, Regulations and Codes of Practice. Inclusion of appendices. Changes to header and footer. Added requirements for register of electrical equipment. |
| | 3.0 | 8/3/2017 | Definitions: Competent person – added definition from AS/NZS 3760, PPE – replaced with definition from WHS Regs, RCD – replaced with definition from Code of Practice, addition of definition for tiger tails. Addition of 4.3.3 to reflect Reg 158. Amendment to 4.8.2. Addition of 5.2.5. Deletion of Appendix 1, (hyperlink now included in references). Addition of Appendix B – Indicative testing and inspection intervals for electrical equipment. Formatting and language changes. |
| | 4.0 | 16/4/20 | Section 2 - added g. corrective actions being addressed; Section 3 - changed competent person reference to Regulation 5 from Regulation 4 (error in original procedure) and added definition for voltage; 4.1.2 applied grammatical improvements; Added note under 4.4.3 as per hazard management procedure, relating to application of hierarchy of control; 4.4.4 Added another example of an engineering control; 4.4.8 d. added "who are affected by electrical work and/or"; 4.5.2 added "for the work being undertaken" as licences can have restrictions e.g. B class licence; 4.6.2 modified to align to Regulation 164 as Regulation 164a has been removed from the Regulations; 4.6.3 added corrective action; 4.7.7 added another example; 4.8.7 b. Added cable locator information in line with incidents relating to utility strikes; 4.9 Added electrical safety at events guideline and flowchart references; 4.10.3b and 4.10.4 Updated incident reporting requirements to align with the updated |



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| | | | <p>incident reporting and investigation procedure; 4.11.2 added corrective action; 5.2.2 added competent person in risk assessment training requirements; 5.2.3 Added use of specialist equipment to work-specific training; 5.2.5 added "inspection and/or"; 6.5 added corrective action records; 7.2.2 Updated the responsibilities to align with the procedural requirements of 4.1.3; 7.3.6 added 'in conjunction with relevant managers and supervisors'; 9 Updated references in line with current versions; 10 Added electrical inspection, testing, maintenance and corrective action records; Appendix B added information at the top of the table from 2.1 of AS/NZS 3760 and updated Table 7 as per the current version in AS/NZS 3012; Appendix C added.</p> |
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APPENDIX A: PREVENTATIVE ACTIONS CHECKLIST

This checklist will help you to identify hazards associated with electrical work and develop safe work methods. If you answer 'NO' to any question you must take action to put **appropriate risk control measures** in place.

| PART 1: INITIAL ASSESSMENT | Y | N |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| <p>Can the work be undertaken while the electrical equipment is de-energised? <i>If Yes, proceed to Part 2. If No, is it:</i></p> <p>necessary in the interests of health and safety that the electrical work is carried out on the equipment while the equipment is energised?</p> <p>OR</p> <p>necessary that the electrical equipment to be worked on is energised in order for the work to be carried out properly?</p> <p>OR</p> <p>is it necessary for the purposes of electrical testing required under Regulation 155?</p> <p>OR</p> <p>are there no reasonable alternative means of carrying out the work?</p> <p><i>If your answer to any of these is 'yes,' proceed to Part 3 after considering whether part of the installation or equipment may be de-energised while the work is carried out.</i></p> <p><i>If you cannot answer 'yes' to any of these, proceed to Part 2—you must work de-energised.</i></p> | | |
| PART 2: WORK DE-ENERGISED | Y | N |
| <p>Do you have approved test instruments suitable for the task? Have you checked that the test instruments are functioning correctly? Have you isolated the supply, e.g., by switching off? Have you conclusively tested that the equipment is de-energised? <i>You must carry out the electrical work in accordance with any Safe Work Method Statement that must be prepared for the work.</i> <i>Proceed to Part 4.</i></p> | | |
| PART 3: WORK ON OR NEAR ENERGISED EQUIPMENT | Y | N |
| <p>Has a risk assessment been conducted by a competent person which identifies all electrical hazards and non-electrical hazards, both actual and potential?</p> | | |

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| Is the work area clear of obstructions to allow for easy access? | | |
| Is the isolation point clearly marked or labelled, and capable of being operated quickly? | | |
| Has the person with management or control of the workplace been consulted about the proposed electrical work? | | |
| Do you have a Safe Work Method Statement for the task at hand? This should state the control measures required to eliminate or minimise the risks. | | |
| Are you trained, competent and confident in applying the particular procedures or techniques that are required for the task? | | |
| Have you checked to ensure that your tools and accessories are insulated and have been inspected and maintained to ensure they are serviceable? | | |
| Is your test equipment appropriate to the task and functioning correctly? | | |
| Are you wearing the appropriate clothing and associated PPE for the task, e.g., safety helmet and boots, insulating gloves? | | |
| Do you have the appropriate insulating mats and sheeting? | | |
| Is a safety observer present? <i>Note: a safety observer is not required for electrical work if it only involves testing and the risk assessment shows that there is no serious risk associated with the work.</i> | | |
| Are the necessary first aid facilities provided and accessible, and are unauthorised persons prevented from entering the work area? | | |
| REMEMBER: Do the work very carefully. Follow the safe work instructions. Assume all exposed conductors are energised. Be aware of the voltage to earth of all exposed conductors. | | |
| PART 4: AFTER COMPLETING THE WORK | Y | N |
| Have the installations/circuits/equipment been restored to a safe and operable condition? | | |
| Have all tags and locking-off devices been removed? | | |

Source: Code of Practice (COP) - Managing Electrical Risks in the Workplace

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APPENDIX B: INDICATIVE TESTING AND INSPECTION INTERVALS FOR ELECTRICAL EQUIPMENT

Caution: This table must be read in conjunction with AS/NZS 3760 as a whole, and particularly 2.1 (which allows for a tolerance of two weeks or as varied by management based on a risk assessment. The risk assessment option does not apply to equipment offered for hire as the hirer has no control over the end use of the equipment). Note that Regulatory authorities, other standards, workplace safety requirements or manufacturers' instructions may specify shorter or longer intervals appropriate to particular industries or specific types of equipment.

| Type of environment and/or equipment | Interval between inspection and tests | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------|-------------------------------------|-----------|
| | Equipment including Class I equipment, Class II equipment, cord sets, cord extension sets and EPODs | Residual current devices (RCDs) | | | |
| | | Push-button test – by user | | Operating time and push-button test | |
| (a) | (b) | Portable (c) | Fixed (d) | Portable (e) | Fixed (f) |
| Factories, workshops, places of manufacture, assembly, maintenance or fabrication | 6 months | Daily, or before every use, whichever is the longer | 6 months | 12 months | 12 months |
| Environment where the equipment or supply flexible cord is subject to flexing in normal use OR is open to abuse OR is in a hostile environment | 12 months | 3 months | 6 months | 12 months | 12 months |
| Environment where the equipment or supply cord is NOT subject to flexing in normal use and is NOT open to abuse and is NOT in a hostile environment | 5 years | 3 months | 6 months | 2 years | 2 years |

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| Type of environment and/or equipment | Interval between inspection and tests | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------|-------------------------------------|-----------|
| | Equipment including Class I equipment, Class II equipment, cord sets, cord extension sets and EPODs | Residual current devices (RCDs) | | | |
| | | Push-button test – by user | | Operating time and push-button test | |
| (a) | (b) | Portable (c) | Fixed (d) | Portable (e) | Fixed (f) |
| 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 |
| Equipment used for commercial cleaning | 6 months | Daily, or before every use, whichever is the longer | N/A | 6 months | N/A |
| Hire equipment: Inspection Test and tag | Prior to hire | Including push-button test by hirer prior to hire | | N/A | N/A |
| | 3 months | N/A | | 3 months | 12 months |
| Repaired, serviced and second-hand equipment | After repair or service which could affect electrical safety, or an reintroduction to service, refer to AS/NZS 5762 | | | | |



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TABLE 7: Periodic Verification Intervals: AS/NZS 3012 Electrical Installations – construction and demolition sites

| Type of environment (and/or equipment) | Transportable structures, Class 1 (earthed conductive parts) and Class II (double insulated) electrical equipment | | Residual current devices (RCDs) | | | |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------|--------------------|-----------------------------|--------------------|
| | Transportable structures, fixed transportable equipment and construction wiring including switchboards | Portable equipment | Push-button test – by user | | Operating time (RCD Tester) | |
| | | | Portable | Non-Portable Fixed | Portable | Non-Portable Fixed |
| Construction and demolition sites, in accordance with Clause 1.1 | 6 months | 3 months | After connection to a socket or before connection of equipment, and at least once every day in use | 1 month | 3 months | 12 months |



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APPENDIX C: ELECTRICAL SAFETY AT EVENTS GUIDELINE AND FLOWCHART

Overview

Councils have a key role to play in managing electrical safety at events that are held on land/property under Council care and control. This is a legal requirement and an expectation on Council as a community leader. Below is some guidance material to help Councils consider the nature of the event and what action must be taken from an electrical safety perspective.

Note, This guidance is concerned with the electrical safety aspects at events. However, other standards and requirements may apply, for example, requirements for rides and amusement devices at such events are covered under AS3533.2:2009 - Amusement rides & devices – operation and maintenance, and duty holders must satisfy themselves that such requirements (if applicable) have been met.

Definitions

| | |
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| <p>Electrical installation</p> | <p>Means a set of wires and associated fittings, equipment and accessories installed in a place for the conveyance, control, measurement or use of electricity that is, or is to be, or has been, supplied for consumption in the place, including anything declared by regulation to be or form part of an electrical installation, but does not include—</p> <p>(a) electricity infrastructure owned or operated by an electricity entity; or</p> <p>(b) any wires, fittings, equipment or accessories connected to and beyond any electrical outlet at which fixed wiring terminates (other than any such outlet used to connect sections of fixed wiring); or</p> <p>(c) anything declared by regulation not to be or form part of an electrical installation.</p> <p><i>[Electricity Act 1996 (SA) s. 4]</i></p> |
| <p>Event</p> | <p>For the purpose of this guidance, events are those envisaged by AS/NZS 3002:2008 - Electrical installations –shows and carnivals, which includes:</p> <ul style="list-style-type: none"> • Exhibitions • Shows • Carnivals • Scouting jamborees • Army camps and the like. |



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| | From a Local Government perspective, examples of such events include Local Tour Down Under events, food and drink festivals, large community events (e.g. Tunarama, Oysterfest), The Fringe Festival, music festivals, etc. |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Responsibility of owner or operator of infrastructure or installation

Electricity Act 1996 (SA) (Act), Section 60

(1b) A person who owns or operates an electrical installation must take reasonable steps to ensure that—

- The installation complies with, and is operated in accordance with, technical and safety requirements imposed under the regulations; and
- The installation is safe and safely operated.

(2) For the purpose of ensuring under this section that an electrical installation complies with the technical and safety requirements and is safe, a person may, subject to the regulations, rely on a certificate of compliance issued under this Part in relation to the installation.

Identifying an 'event'

A key consideration in defining whether a gathering would be considered an 'event' for the purposes of AS/NZS 3002 is whether:

- There will be concessions (stall/stall holders); and
- Power will need to be redistributed from the facility's permanent electrical installation, rather than consumed directly from it (connecting wiring or multiple extension cords/power boards etc. to carry electricity to a point where appliances can be connected, rather than plugging the appliance directly into the socket/outlet at the end of Council's provided installation).

Examples of gatherings that are not considered an 'event' under AS/NZS 3002 include family events (marriage, birthdays, etc.) or small community events (sport club award events, etc.) at ovals or community centres where a sound system, PA system or any other electrical appliance is plugged directly (or via a single power board or extension cord) into a standard power outlet from a permanent installation.

In such cases, basic electrical safety requirements such as tagging and testing will apply and must be addressed by the appropriate duty holder (owner/operator). However, the appliances will not be considered an installation in the context of Section 60 of the Act or trigger the requirements for a certificate of compliance (CoC).

Key points

The following aspects are the key areas (from an electrical safety perspective) that Councils should consider when allowing events to occur on land/property under Council care and control:

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- Council must (legal obligation) take reasonable steps to ensure the electrical installation that they own or operate is safe and safely operated.

Section 60 of the Act specifies the obligations on owners or operators of electrical Installations (i.e. the wiring, etc. up to the socket/outlet). These obligations can be confirmed as met by the provision of a CoC by a licensed electrician. The CoC needs to be current and any modifications to, or activities that could affect the integrity of, the installation, will require the issuing of a new CoC.

- Where connections are made to a Council installation for the purpose of redistribution of power, the associated equipment is considered an installation and the owner or operator of the equipment has the same legal obligation as Council (above).
- Redistribution excludes direct consumption of power by an appliance e.g. direct connection to the outlet or connection to it via a single power board or extension lead. Anything beyond this is considered redistribution (such as "daisy chaining" - the connecting of multiple extensions or power boards together) and therefore an installation.

If the installation equipment is under the care and control of Council (i.e. Council is the event organiser or coordinator, or it is Council equipment), Council must ensure that the installation is safe and appropriately maintained and inspected (via a CoC). If it is not under Council care and control (introduced by a third party who is using the land/facility under a permit) then Council should communicate the requirement in regard to safe electrical equipment (installation) and the need for a CoC to the third party. General electrical safety requirements will still need to be applied (risk assessment, minimisation of potential for damage, tagging and testing, etc.)

- A CoC is not required where connections are made via an appropriate power outlet (such as a standard socket outlet) to power electrical appliances. However, general electrical safety requirements will need to be applied (risk assessment, minimisation of potential for damage, tagging and testing, etc.)
- Council should ensure that if the equipment being connected is under Council care and control (i.e. Council is the organiser/coordinator of the event or it is Council equipment), that the equipment is safe and appropriately set up, maintained and inspected (tag and test). These requirements may be a part of an existing inspection regime. If it is not under Council care and control (introduced by a third party who is using the land/facility under a permit) then Council should communicate the expectation in regard to the safe use of electrical equipment in Council facilities to the third party.

A flow chart is attached for your information.

Notes on the flow chart:

- *Role titles are examples only. Users need to identify the specific role within their organisation that aligns with the responsibilities outlined in the flowchart.*
- *Types of event:*
 - *Internal - Council has primary control of the event*

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- *External sponsored – Council may have some influence over the event through Sponsorship (or some other benefit being provided) and potentially has risks such as reputational risk due to that relationship and potential to influence*
 - *External – This is intended to address events that Council permits to occur on land that is under Council care and control, but apart from the permit process Council has no control or involvement in the event*



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