

Electrical Safety Procedure

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Description	This document outlines the Griffith University procedure for ensuring electrical safety compliance within the workplace.

Related documents

Campus Life Electrical Safety Manual

[Construction Work Policy](#)

[Electrical Safety Policy](#)

[Electrical Safety Procedure Test and Tag](#)

Electrical Test Equipment Calibration Register Template

[Health and Safety Policy](#)

[GSafe](#)

Manufacturer's instructions for different types of calibrated equipment

[Reporting and Recording Procedures for incidents, injuries, dangerous incidents, hazards and near misses](#)

[Risk Management Framework](#)

[Risk Management Policy](#)

[Risk Assessment Template](#)

[Safe Work Method Statement Template](#)

External documents

[Australian Standard/New Zealand Standard 4513 -1995 - Medical Electrical Equipment - fundamental aspects of safety standards](#)

[Australian Standard/New Zealand Standard 3200.1.0:1998 Medical electrical equipment - general requirements for safety - Parent Standard](#)

[Australian Standard / New Zealand Standard 3760-2010 In-service safety inspection and testing of electrical equipment](#)

[Codes of Practice for Electrical Work](#)

[Electrical Safety Act 2002](#)

[Electrical Safety Regulation 2013](#)

[Work Health & Safety Act 2011](#)

[Work Health & Safety Regulation 2011](#)

[\[Purpose\]](#) [\[Definitions\]](#) [\[Scope\]](#) [\[Application\]](#) [\[Delegated Authorities\]](#)

1. PURPOSE

The University has an obligation to ensure people's health and safety while at work, an important component of which is electrical safety. This procedure complies with the *Electrical Safety Act 2002*, which is designed to protect people and property from the risks associated with electricity. The legislation requires that the University, as a person conducting a business or undertaking (PCBU) has a primary duty of care to ensure:

- that all business is undertaken in a way that is electrically safe;
- that all electrical equipment used is electrically safe;
- the electrical safety of all people and property likely to be affected when performing electrical work, and
- people performing electrical work will be trained and competent.

The University will also comply with subordinate legislation including the Electrical Safety Regulation 2013 and associated Electrical Codes of Practice e.g. Managing Electrical Risk in the Workplace. These Codes of Practice set out specific requirements about working with electricity and electrical equipment.

2. DEFINITIONS

- Competent Person** – (a) a person who has the necessary practical and theoretical skills, acquired through training, qualification, experience or combination of these, to correctly undertake the required tasks, and for testing and tagging, has completed the required national competencies to be deemed competent in accordance with AS/NZS 3760 and AS/NZS 3012, and
- (b) competence has been verified in the Element or by Campus Life, and
 - (c) details of (a) and (b) above is recorded on Campus Life or Element database, and
 - (d) if the test and tag is for medical equipment, completed a course of instruction to AS/NZS 3551.

Dangerous Electrical Event – As per the *Electrical Safety Act 2002*

- (a) the coming into existence of circumstances in which a person is not electrically safe, if—
 - (i) the circumstances involve high voltage electrical equipment; and
 - (ii) despite the coming into existence of the circumstances, the person does not receive a shock or injury;
- (b) the coming into existence of both of the following circumstances—
 - (i) if a person had been at a particular place at a particular time, the person would not have been electrically safe;
 - (ii) the person would not have been electrically safe because of circumstances involving high voltage electrical equipment;
- (c) an event that involves electrical equipment and in which significant property damage is caused directly by electricity or originates from electricity;
- (d) the performance of electrical work by a person not authorised under an electrical work licence to perform the work;
- (e) the performance of electrical work by a person if, as a result of the performance of the work, a person or property is not electrically safe;
 - Examples for paragraph (e)—*
 - the connection of electrical equipment to a source of supply involving incorrect polarity or other incorrect connection
 - the performance of electrical work as a result of which an exposed wire is left in circumstances in which it can be energised by the operation of a switch or circuit breaker or the insertion of a fuse
- (f) the discovery by a licensed electrical worker of electrical equipment that has not been marked as required under this Act.

Electrical Engineer - As per the *Electrical Safety Act 2002*

- (a) a person who is a registered professional engineer under the *Professional Engineers Act 2002* and who is registered in the area or preserved area of electrical engineering under that Act; or
- (b) a person who held a degree in electrical engineering granted by—
 - (i) an approved school of engineering under the repealed *Professional Engineers Act 1988*; or
 - (ii) an approved faculty of engineering under the repealed *Professional Engineers Act 1988*; before the repeal of that Act and who continues to hold the degree; or
- (c) a person who held, immediately before the commencement of the *Professional Engineers and Other Legislation Amendment Act 2008*, and continues to hold, a qualification in electrical engineering granted by a tertiary education institution that entitled the person to be admitted to the Institution of Engineers Australia, as a graduate member, and transitioning to a RPEQ

Electrical Equipment - As per the *Electrical Safety Act 2002*

means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that—

- (a) is used for controlling, generating, supplying, transforming or transmitting electricity at a voltage greater than extra low voltage; or
- (b) is operated by electricity at a voltage greater than extra-low voltage.

Electrical

Infrastructure -

Includes an electrical installation, electrical equipment, electrical line or associated equipment for an electrical line.

Electrically Safe – As per the *Electrical Safety Act 2002*

- (a) for a person or property, that the person or property is free from electrical risk, and
- (b) or electrical equipment or an electrical installation, that all persons and property are free from electrical risk from the equipment or installation, and
- (c) for the way electrical work is performed, that all persons are free from electrical risk from the performance of the work, and
- (d) for the way a business or undertaking is conducted, that all persons are free from electrical risk from the conduct of the business or undertaking, and
- (e) for the way electrical equipment or an electrical installation is installed or repaired, that all persons are free from electrical risk from the installing or repairing of the equipment or installation.

Electrical Risk – As per the *Electrical Safety Act 2002*

- (a) in relation to a person, the risk to the person of death, shock or injury caused directly by electricity or originating from electricity; or
- (b) in relation to property, the risk to the property of—
 - (i) damage caused by a cathodic protection system; or
 - (ii) loss or damage caused directly by electricity.

Health and Safety Risk Register -

A register of health and safety risks developed by each element or a delegated manager which aligns to the Griffith University risk management procedure.

Electrical Work –

As per the *Electrical Safety Act 2002* is connecting electricity supply wiring to electrical equipment or disconnecting electricity supply wiring from electrical equipment or manufacturing, constructing, installing, removing, adding, testing, replacing, repairing, altering or maintaining electrical equipment or an electrical installation.

Hire Equipment –

Equipment that is being lent or hired to Griffith University students to assist them in their studies. The electrical equipment passes out of the control of the University.

Specified Electrical Equipment –

As per the *Electrical Safety Regulation 2013* is:

- (i) a cord extension set (extension lead) with a current rating of not more than 20 amps, or
- (ii) an electrical portable outlet device (epod or power board) with a current rating of not more than 20 amps, or
- (iii) electrical equipment, other than a portable safety switch that
 - a. has a current rating of not more than 20 amps, and
 - b. is connected by a flexible cord or cable and plug, and
 - c. is moved during its normal use for the purpose of its use.

Serious Electrical Incident –

As per the *Electrical Safety Act 2002* is an incident involving electrical equipment if, in the incident—

- (a) a person is killed by electricity, or
- (b) a person receives a shock or injury from electricity, and is treated for the shock or injury by or under the supervision of a doctor, or
- (c) a person receives a shock or injury from electricity at high voltage, whether or not the person is treated for the shock or injury by or under the supervision of a doctor.

Extra Low Voltage (ELV)

As per the *Electrical Safety Act 2002* means voltage of 50V or less AC RMS, or 20V or less ripple-free DC

Low Voltage (LV)

As per the *Electrical Safety Act 2002* means voltage greater than extra low voltage, but not more than 1000V AC RMS or 1500V ripple-free DC.

High Voltage (HV)

As per the *Electrical Safety Act 2002* means voltage greater than low voltage

Meaning of person conducting a business or undertaking (PCBU)

- (1) A person conducts a business or undertaking —
 - (a) whether the person conducts the business or undertaking alone or with others, and
 - (b) whether or not the business or undertaking is conducted for profit or gain.
- (2) A business or undertaking conducted by a person includes a business or undertaking conducted by a partnership or an unincorporated association.
- (3) If a business or undertaking is conducted by a partnership (other than an incorporated partnership), a reference in the WHS Act to a person conducting the business or undertaking is to be read as a reference to each partner in the partnership.
- (4) A person does not conduct a business or undertaking to the extent that the person is engaged solely as a worker in, or as an officer of, that business or undertaking.
- (5) An elected member of a local government does not in that capacity conduct a business or undertaking.
- (6) A regulation may state the circumstances in which a person may be taken not to be a person who conducts a business or undertaking for the purposes of this Act or any provision of this Act.
- (7) A volunteer association does not conduct a business or undertaking for the purposes of this Act.
- (8) In this section, volunteer association means a group of volunteers working together for 1 or more community purposes where none of the volunteers, whether alone or jointly with any other volunteers, employs any person to carry out work for the volunteer association.

3. SCOPE

This procedure applies to all employees, contractors or subcontractor, employees of a contractor or subcontractor, employees of labour hire companies assigned to work in the University or

undertaking, outworkers, apprentices or trainees, work experience students and volunteers who may come into contact with electricity and electrical equipment.

4. APPLICATION

4.1 General Obligations

Griffith University buildings and electrical infrastructure are under the management control of Campus Life and this element is responsible for the appropriate testing and maintenance of the electrical infrastructure and for making historical records available as required.

Subsequently, Campus Life requires that no electrical equipment is used by Griffith University employees or students that could cause electrical damage or reduce the reliability of electrical supply.

Where an electrical safety risk has been identified, this will be documented on the element operational Health and Safety risk register by applying the Griffith University risk assessment process. Then the following minimum requirements will occur;

- A risk assessment will be conducted (using the Griffith Risk Assessment Template)
- Where required a safe work method statement (using Griffith Safe Work Method template) will be developed in consultation with the employees or students involved in the specific work activity which has been risk assessed.
- All employees or students will be provided with information training and instruction which is suitable and adequate having regards to:
 - the nature of the work carried out by the worker, and
 - the nature of the risks associated with the work at the time the information, training or instruction is provided, and
 - the control measures implemented.
- Senior Managers must ensure, so far as is reasonably practicable, that the information, training and instruction is provided in a way that is readily understandable by any person to whom it is provided, and
- Either the worker's direct supervisor, or other supervisory personnel or health and safety support/technical officer personnel has formally reviewed and agreed to the control measures pertaining to the work activity.

4.2 Specific situations and responsibilities pertaining to Griffith University Elements

Deputy Vice Chancellors, Pro Vice Chancellors, Deans, and Heads of Elements are responsible for general and electrical safety in their own areas and the workplaces of their general and academic staff. This includes ensuring all electrical equipment is electrically safe and the ongoing testing and tagging of relevant plant/equipment and provision and testing of portable safety switches where required is conducted in accordance with "Electrical Safety Procedure Test and Tag" including but not limited to:

- Meeting room equipment that belongs to Schools or elements is their responsibility.
- Any electrical equipment procured or gifted and then is owned by the School and used for teaching or research work, including use in teaching and research laboratories, clinics and workshops is the School's responsibility and must comply with relevant Australian Standards.
- Equipment owned by Division of Information Services or Campus Life in teaching and research laboratories is the responsibility of these elements in terms of testing and tagging.
- If staff or students bring domestic or other appliances into the workplace, the relevant manager must ensure it is tested and tagged before use at the workplace, and, if the equipment does not carry a RCM (Registered Compliance Mark) that the equipment is not used.

- When electrical equipment is used in research/projects/artworks etc the relevant academic supervisor must ensure it is tested and tagged before use, and, if the equipment has been purchased from an overseas vendor, that the equipment is not used unless it meets the approval of the Electrical Engineer, Griffith University Science workshop and complies to current risk assessment protocols.
- For off campus activities, the relevant organising element is responsible for identifying any potential electrical safety hazards pertaining to such activities including testing and tagging of electrical equipment and provision and testing of portable safety switches, as required. If the electrical equipment being used for off campus activities has been designed and constructed by Griffith University Science Workshop, then written approval must be obtained from the Head of School, before such equipment is permitted to leave the campus.
- External parties renting University space are responsible for testing and tagging of non-University electrical equipment brought onto and used within the leased work area, and provision of safety switches as required.
- All staff are responsible for reporting of electrical hazards or damaged electrical equipment to the Maintenance Hotline Ext 8888 on all campuses.
- In accordance with the Electrical Safety Act 2002 Section 18d and in the pursuit of technological advancements, if the Griffith University Science Workshop design and construct electrical equipment within the workshop, the Electrical Engineer, (Griffith Sciences), will ensure that written specifications and procedures are in place that specify:
 - The work is done safely and competently, and
 - The equipment is tested to ensure compliance with relevant standards.
- The Electrical Engineer, Griffith University Science Workshop will approve all design and construction specifications for electrical equipment designed and constructed by that area. Records of approvals, manuals and testing will be maintained for the life of the equipment or seven years, whichever is the greater. A Certificate of Compliance will be attached to the electrical equipment stating the test date and the relevant standards tested to prior to leaving the workshop.
- Multi-outlet power boards – Griffith University's Electrical Safety Policy and Procedures (ESPP) is an integrated management approach to maximising the safety of the electricity supply to all electrical equipment located within its buildings.

With due consideration to the age of some of the buildings, the long term objective of the ESPP is to provide the appropriate numbers of fixed general power outlets within buildings, thus obviating the requirement for multi-outlet power boards. This approach will incur considerable capital cost. In the interim, the University intends to minimise the potential electrical risk by implementing the following approach:

Office and Teaching Spaces

The use of multi-outlet power boards will be permitted within University offices and teaching spaces subject to compliance with the following procedure:

- The multi-outlet power board is purchased by the University
- The multi-outlet power board has an in-built load limiting switch with a maximum rating of 10A
- All the power points on the multi-outlet power board are individually switched
- The multi-outlet power board has been tested and tagged in accordance with the Queensland Electrical Safety Regulations within the last twelve (12) months

Laboratories and Workshops

The use of multi-outlet power boards in laboratories and workshops may continue where the Element can demonstrate:

- It has performed a risk assessment and implemented suitable controls to ensure property and persons are electrically safe.
- It has taken steps to ascertain the number of fixed general power outlets required and to establish an implementation plan to achieve the policy intent outlined in the ESPP.

Any multi-outlet power boards utilised must achieve the compliance requirements described in Office and Teaching Spaces (refer above).

All general power outlets (GPOs) installed in Griffith University facilities are marked with a circuit identification number on the front plate of the power outlet. If a power outlet is not marked or the circuit number indicator has been removed or damaged, seek assistance from Campus Life Facilities Management.

In most locations GPOs are 10A single phase switched socket outlets. Where electrical equipment requires 15A supply, this equipment will have a male plug with a larger earth pin. This equipment can only be plugged into a 15A socket outlet designed for that purpose (larger earth pin). Only one piece of 15A electrical equipment may be plugged into a 15A socket outlet.

Electrical equipment requiring three phase power must be supplied with a power outlet sized to suit the load and plug configuration e.g. 5 pin socket outlet.

In all cases consideration of the required power supply for electrical equipment should be in accordance with the electrical equipment manufacturer's requirements.

Where several items of electrical equipment are to be connected to GPOs on the same circuit (denoted by the identification number on the GPO), the risk assessment must consider the electrical equipment that may be required to operate concurrently and controls implemented to minimise the risk of the ampere limit for the circuit being exceeded.

The connection of more than one sensitive or critical item of equipment to power outlets supplied from the same circuit must be considered in the risk assessment process. A trip of a circuit supplying power to several items of sensitive or critical equipment could exacerbate losses to the business.

The assessment of power outlet requirements should consider:

- Sensitive analytical, measuring or monitoring equipment may need to be served from a separate power circuit to the space in which they are installed.
- Sensitive equipment which requires good power quality may need to be supplied with a power quality device such as a Voltage Stabiliser and Surge Protection.
- Critical equipment may need additional power quality devices such as Uninterrupted Power Supply (UPS) or emergency generator power supply.

Any such specific requirements must be discussed and agreed with Campus Life.

Definition of Laboratories and Workshops

Room Type	Definition
<u>Office - Laboratory (105)</u>	A room which is primarily an office but which has services and work space suitable for conducting experiments and which provides accommodation for one or more faculty or research staff.
<u>Laboratory - Wet (302)</u>	A wet laboratory used for experimental practices (usually contains a fume cupboard).
<u>Laboratory - Dry (303)</u>	A dry laboratory used for experimental practices.
<u>Laboratory Prep (401)</u>	A room which is ancillary to a laboratory facility. This category includes preparation rooms, balance rooms, sterile rooms, stores for chemicals, glass etc. and all other rooms connected with the use of, or preparation for the use of, both undergraduate

Room Type	Definition
<u>Instrument Room (402)</u>	A room controlled by an academic unit which houses major equipment which can be used independently of a laboratory to conduct experiments e.g. electronic microscopes, NMR, mass spectrometers, computers.
<u>Workshop (406)</u>	All workshops and other areas used for the production or repair of equipment or machinery are included. Areas directly connected with a main workshop such as painting or welding booths and stores and workshop superintendents offices contained within a workshop

Reference: <https://www154.griffith.edu.au/SpaceAid/Reference>

Construction and Maintenance

The use of multi-power boards will be permitted for construction and maintenance works subject to compliance with the following procedure:

- Power from the multi-power board is only used within the designated construction zone
- All the power points on the multi-power board are individually switched
- The multi-power board has been tested and tagged in accordance with the Queensland Electrical Safety Regulations, and
- The multi-power board and/or the power lead servicing the multi-power board must be fitted with a portable Safety Switch compliant and tested in accordance with AS/NZS 3760.

Note: Double adaptors, piggyback plugs and portable bar or fan heaters are not permitted to be used within any University buildings, including Residential Colleges.

4.2.1 Medical equipment

A higher standard of testing applies for medical equipment under Australian/New Zealand Standard 3551:2012 Technical management programs for medical devices. This includes the following tests:

- Visual inspection of external mains supply components
- Protective Earthing resistance Test
- Insulation Resistance Test
- Touch current Test
- Earth Leakage Current Test
- Patient Leakage Current Test
- Mains Contact Current Test

Accordingly, a person who test and tags this particular equipment must show competence in AS/NZS 3551. Refer to definition of Competent Person.

4.2.2 Standing equipment drawing continuous current

- When refrigerators, freezers incubators and ovens (etc) are connected to the supply, they must:
 - Be in good condition (ensure plug and cord are also in good condition), and
 - If not purpose built and installed, be placed 150mm clearance from any surface (including other standing equipment), and
 - Have not more than two piece of standing equipment on one circuit, and

- Be plugged directly into a power point socket (not a multi power board) with a cord that is not coiled.

4.2.3 Microwave Ovens

- When microwaves are connected to the supply, they must:
 - Be in good condition (ensure plug and cord are also in good condition), and
 - Be plugged directly into a power point socket (not a multi power board) with a cord that is not coiled.

4.2.4 Personal Electrical Equipment

If personal electrical equipment is brought to a University workplace, it must be tested and tagged prior to it being brought onto University premises or being used for University purposes.

- Where there is a legitimate case for the use of portable heaters, (note no bar heaters) they must be approved by both Head of Element and by the Campus Chief Warden (Maintenance Supervisor) or their deputy, prior to use. Where there is in-house heating, ventilation, air-conditioning supplied, permission for use of portable heaters will not be granted.
- When heaters are permitted they must:
 - Be in good condition with no damage to guards and no oil leaks
 - Be electrically tested and tagged
 - Be placed 1m clear of any surface other than the floor
 - Have a safety switch that switches off if the heater is knocked over
 - Be turned off when user is not in the room
 - Be plugged directly into a power point socket (not a multi power board) with a cord that is not coiled
 - Never have any material placed over or near them, e.g. towels, clothing, papers etc

4.2.5 Lending/Hire of Equipment

University electrical equipment which is loaned/hired to staff or students, this will be regarded as Hire Equipment and must be inspected, and where required tested and tagged by a competent person:

- before each hiring, and or
- a minimum of every 6 months.

Records of test results must be kept for a minimum of five years.

- Refer to “The Electrical Safety Test and Tag Procedure” for further details.

4.3 Electrical Work

4.3.1 General Safety Requirements **Low Voltage (LV) Electrical Work**

- The work area must be set up so electrical cords, cables and equipment are protected from damage (including damage by liquids).
- Employees and students must be educated to inspect for and immediately report any physical damage to electrical cords and appliances.
- The use of safety switches may be required in certain situations. Where a piece of equipment has been designed, modified or constructed for educational purposes in accordance with Section 55 (3) (g) of the Electrical Safety Act 2002, and requires a single phase supply of 230 volts (+10% or -5%), or a three phase equipment which does not operate at high voltage, the relevant teaching staff must:

- perform a written risk assessment to ensure students, staff or the public, are free from electrical risk and are electrically safe, and
 - The risk assessment will include but not limited to:
 - A Visual Inspection of the equipment,
 - Continuity testing to any exposed metal that requires to be earthed (in accordance with AS/NZS 3000),
 - Insulation Test to ensure all live conductors are insulated from exposed metal,
 - A method to ensure safe approach distances for staff, students and the public.
 - An isolation point or points that is clearly marked or labelled, easily accessible, and that can be operated quickly in case of an emergency.
 - Prohibit performing any work on the electrical equipment while the equipment is energised.
 - The area where the electrical equipment is set up is clear of obstructions to allow for easy access and exit.
 - Control measures could include the particular equipment is tested in accordance with AS/NZS 3760
- prepare a Safe Work Method Statement (SWMS) detailing how the equipment will be proved de-energised prior to a person encroaching on the safe approach distance, and
- ensure the piece of equipment where required is connected to either a type 1 or type 2 safety switch, and
- records of written risk assessments and SWMS to ensure students, staff or the public, are free from electrical risk and are electrically safe, must be kept for 28 days after the work to which it relates is completed; or in the event of a serious electrical incident or dangerous electrical event occurring in connection with the work to which the assessment and SWMS relates, the person must keep the assessment for at least 2 years after the incident occurs.

4.3.2 General Safety Requirements **High Voltage (HV) Electrical Work**

- Comply with all the relevant requirements pertaining to that listed in 4.3.1
- If the equipment is high voltage, it is isolated, tested for dead and earthed by a competent person, prior to accessing the equipment.

4.3.3 Safety switches (or Residual Current Devices)

Although certain parts of the University are protected by safety switches (or Residual Current Devices), the University requires testing and tagging of specified electrical equipment in all cases. In some cases portable safety switches may also be required. This is due to the difficulty of identifying exactly which parts of buildings are protected, and of preventing or tracking the movement of specified electrical equipment from a protected to a non-protected area. Refer to the “Electrical Safety Test and Tag Procedure”.

4.3.4 Different types of work - Key Requirements

The electrical legislation identifies six types of work with which the University may be involved.

- Most electrical work in the University will fall into Service Work or Office Work.
- Construction Work is predominately performed in Campus Life, and responsibilities for the work are identified in the Griffith Construction Work

Policy. Information Services responsibilities are also outlined in the Griffith Construction Work Policy.

- Manufacturing Work may be performed in workshops performing maintenance or certain learning and teaching activities e.g. fabrication.
- Amusement Work may be conducted during Open Days or other public events.
- Rural Industry Work may be conducted in some research activities.

The key requirements for ensuring electrical safety include inspection and testing of electrical equipment by a competent person at the required interval. At the completion of any tests, any specified electrical equipment must have a durable tag attached at the time of inspection and testing showing the date by which the equipment is to be re-inspected and re-tested.

Refer to “The Electrical Safety Test and Tag Procedure” for further details.

4.4 Electrical work on energised electrical equipment

- 4.4.1 Electrical work on energised electrical equipment is prohibited unless there is a specific and unavoidable reason that energised electrical work needs to be undertaken. Before electrical work on electrical equipment is carried out, a competent person must ascertain whether the electrical equipment is energised and a risk assessment conducted and validated by a supervisor.
- 4.4.1.1 Licensed electrical workers, licensed teaching staff and (students under the supervision of teaching staff), will test for de-energised as per the Queensland Code of Practice 2013: Managing Electrical Risks in the Workplace
- 4.4.1.2 Licensed electrical workers, licensed teaching staff and students under the supervision of teaching staff when working with high voltage, in addition to 4.3.2 above, the electrical equipment must be tested and earthed, and
- 4.4.1.3 A competent assistant / safety observer who is trained in CPR and switchboard rescue is in attendance at the time of the commencement of work and until the electrical work has been completed. A safety observer is not required if the work consists only of testing, and the risk assessment shows that there is no serious risk associated with the proposed work.
- 4.4.2 Unavoidable and necessary energised electrical work must only be completed by a licensed electrical worker after a risk assessment has been conducted and validated by a supervisor and where:
- 4.4.2.1 it is necessary in the interests of health and safety that the electrical work is carried out on the equipment while the equipment is energised, or
- 4.4.2.2 it is necessary that the electrical equipment to be worked on is energised in order for the work to be carried out properly, or
- 4.4.2.3 it is necessary for the purposes of testing required under section 15 (Electrical Safety Regulation 2013), or
- 4.4.2.4 there is no reasonable alternative means of carrying out the work and,
- 4.4.2.5 a competent assistant / safety observer who is trained in CPR and switchboard rescue is in attendance at the time of the commencement of work and until the electrical work has been completed. A safety observer is not required if the work consists only of testing, and the risk assessment shows that there is no serious risk associated with the proposed work.

Refer to Campus Life Engineering Services for advice.

4.5 Electrical work – Training and competency

- 4.5.1 For employees of Griffith University to undertake electrical work at Griffith University, the person must:
- 4.5.1.1 Hold a current electrical licence under the Electrical Safety Act 2002, and

- 4.5.1.2 Be employed by Griffith University specifically to undertake the role as an electrician, or
- 4.5.1.3 Be employed by Griffith University as an Electrical Engineer, or
- 4.5.1.4 Be employed by Griffith University specifically to undertake the role as a Teaching/Research staff member or Technical Officer assisting the Teaching/Research Staff,¹ and
- 4.5.1.5 Be listed on the Electrical worker register controlled by Campus Life
- 4.5.2 For the purposes of this Electrical Safety Procedure, even though a person may hold a current electrical licence as per the Electrical Safety Act 2002 – they are not permitted to undertake any electrical work unless they comply with 4.5.1.2 or 4.5.1.4 above.
- 4.5.3 For businesses contracting for the performance of electrical work, the business must:
 - 4.5.3.1 Hold an electrical contractor's licence, and
 - 4.5.3.2 Be registered by Campus Life to undertake the electrical work.
- 4.5.4 For students to perform electrical work LV / HV:
 - 4.5.4.1 It must be part of their Academic Course, and
 - 4.5.4.2 Be under the supervision of Teaching Staff who have been deemed to be electrically competent by Griffith University
- 4.5.5 Where identified in the risk assessment / safe work method statement be trained in CPR and switchboard rescue requirements.

4.6 Calibrated Equipment

- 4.6.1 All equipment used for the testing of electrical circuits including voltage, polarity, insulation and earth resistance and other prescribed electrical testing requirements will be calibrated to meet manufacturers and Australian Standards calibration requirements. This equipment will be listed on an Electrical Test Equipment Calibration Register in each Element.
- 4.6.2 The Electrical Test Equipment Calibration Register will be kept for a minimum of five years for historical and internal auditing purposes.

4.7 Incident Notification and Reporting

Any minor shocks or "tingles" from electrical equipment or electrical infrastructure (wiring, switches or plugs) or any minor damage caused by electricity (smouldering, fire etc.) must be reported immediately to the Campus Life Maintenance Hotline Ext 8888 on all campuses and entered into GSafe.

All serious electrical incidents and dangerous electrical events must be reported in accordance with the Griffith University *Reporting and Recording Procedure for incidents, injuries, dangerous incidents, hazards and near misses* which outlines responsibilities with respect to reporting requirements.

4.8 Campus Life Requirements to review the level of Electrical Safety Compliance

Campus Life will develop an internal audit review schedule, which will sample the level of compliance to this procedure. The representative sample will consider risk exposure and any historical electrical events that exposed staff or students to electrical risks. In consultation with the Elements, the audit sample will be designed to provide evidence to the Vice President (Corporate Services) and other element stakeholders, of electrical safety compliance across all Griffith University workplaces.

¹ **NOTE: Teaching/Research and Technical staff, are not to undertake electrical work on electrical infrastructure.**

5. DELEGATED AUTHORITIES

Heads of Elements, Directors and Research Centre Directors, are responsible for general and electrical safety in their own areas and the workplaces of their general and academic staff. Academic Heads of School, Teaching staff, and all Managers including Campus Life Facilities Managers, are responsible for the identification, assessment and control of electrical risk exposure, to fulfil the requirements contained within this procedure.