

PLANT ISOLATION, SAFETY TAG AND LOCKOUT PROCEDURE



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1 PURPOSE

- 1.1 This procedure outlines:
- CQUniversity's responsibilities and processes for the safe isolation of energy sources whilst undertaking repairs and/or maintenance at CQUniversity worksites, and
 - how CQUniversity will eliminate or minimise the risks associated with energised plant, equipment, machinery, fluid or gas power where these energy sources create a hazard.

2 SCOPE

- 2.1 This procedure applies to CQUniversity employees, students, contractors and their employees, and visitors in CQUniversity operations and activities.

3 PROCEDURE

- 3.1 The University has adopted an isolation system comprising of authorised tags, locks and competency-based training to inform employees of the isolation process, ensuring the safety of workers who install, maintain or repair plant. These are minimum procedures and are not intended to replace existing procedures designed for complex (non-routine) work that may exist in various workspaces.
- 3.2 Safety tags and lockout procedures are required where plant (equipment, machinery and fluid or gas power sources):
- is in a dangerous position
 - is being worked on
 - has not been completely installed, or
 - is out of service for repair or alteration.

Risk management

- 3.3 The four basic steps mandated by the [Work Health and Safety Regulation 2011](#) (Qld) and detailed in the [Model Code of Practice: How to manage work health and safety risks](#) must be followed to manage exposure to risks.
- 3.4
- Step 1 Identify hazards – find out what could cause harm
 - Step 2 Assess risks if necessary – understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening
 - Step 3 Control risks – implement the most effective control measure that is reasonably practicable in the circumstances
 - Step 4 Review control measures - ensure they are working as planned.

Personal isolation

- 3.5 Isolation of plant (equipment, machinery and fluid or gas power sources) in University workplaces is conducted by personal isolation and **not** group isolation systems.
- 3.6 Each person working on plant will be protected by their personal danger tag and a lock. The personal danger tag and lock informs other workers and/or emergency services that a worker is still working on this piece of plant and that there is a potential hazard associated with the plant. While personal danger tags and locks are two separate items, for the purpose of isolating plant on a University workplace, they will be used together. The completed personal danger tag will formally identify the attached lock and avoids potential confusion.
- 3.7 To isolate plant in a workplaces the following steps should be undertaken:
- before commencing any work ensure:
 - the job is planned and discussed with the manager/supervisor/foreman and workers to identify the isolation points and notify others who may be affected
 - workers are familiar with the local operating procedures specific to the work site, and
 - an out-of-service tag is completed and attached to the isolation point of the plant to be installed, repaired or maintained.
 - follow isolation procedures:
 - identify sources of energy coming into the plant or within the plant
 - remember that energy fed into the plant may have more than one potential source and supply line and there may be more than one potential source of energy (e.g. contents or parts of the plant may be able to move), and
 - isolate, dissipate and restrain sources of energy and engage locking devices (isolation switches)
 - complete and attach personal danger tag/s and lock/s at each isolation point:
 - recheck controls. Ensure that sources of energy have been isolated, dissipated and restrained and that all energy sources have been tagged and locked, and
 - check for 'dead' or positive isolation:
 - plant must be checked for 'dead' or positive isolation prior to commencement of work. This may be done by the use of meters or test equipment if necessary
 - to determine that the equipment is 'dead' guards must be in place and the start mechanism of the plant engaged. If the plant engages or moves, positive isolation has not been achieved and the plant controls are faulty. Working on an item of plant where positive isolation can not be achieved could be very dangerous. The item of plant must be turned off at the main isolator, any personal danger tags and locks removed and replaced with out of service tags, and the manager/supervisor must be notified. An incident report must be submitted in accordance with the [Incident and Hazard Reporting and Investigation Procedure](#).

Out of service tags

3.8 The out of service tag is black lettering on a yellow background with a caution symbol and complies with the Australian Standard AS 1319-1994 Safety signs for the occupational environment. Out of service tags identify plant removed from service because a fault makes the plant unsafe to operate.

3.9 Anyone can replace an out of service tag on plant if they consider it to be unsafe or unserviceable. If plant is considered unsafe or serviceable, the appropriate maintenance service provider must be immediately notified.



3.10 The out of service tag must be fully completed, including indicating why the plant has been taken from service. The tag must be attached in a suitable location to prevent the operation of faulty or unsafe plant. For example, a faulty electrical appliance would have a tag placed within 300mm of its plugged end.

3.11 Plant may need to be disconnected from energy sources, keys or other starting devices removed and locked away/and or locking devices installed to ensure that the plant cannot be operated.

3.12 Only the person who originally attached the out of service tag, or a [competent person](#) after fixing or rectifying the defect and making it safe, is permitted to remove an out of service tag.

3.13 Plant is taken out of service because it is unsafe to operate or there is a risk of causing damage to materials, plant or personnel if operated. Workers or others must not attempt to operate out of service plant until the fault/s has been rectified and any out of service tag/s or personal danger tag/s and lock/s removed.

3.14 An out of service tag indicates an item of plant is unsafe to operate. It does not indicate that the plant is safe to work on for maintenance or repair.

Personal danger tags

3.15 The personal danger tag is coloured red and black on a white background and complies with the Australian Standard AS 1319-1994 Safety signs for the occupational environment. It indicates that the plant to which the tag is attached is being worked on by the individual whose name appears on the tag and the plant cannot be operated. The tag must be completed, including indicating why the plant must not be operated.



3.16 Personal danger tags and locks must be attached to switches/valves or other means of operating the plant whenever the operation of the equipment may cause injury to workers or others. The personal danger tag and lock informs others that the plant is being installed or repaired and must not be operated.

3.17 Personal danger tags must be placed in a location that will achieve positive isolation. Emergency stop buttons and similar controls must not be used for isolation.

3.18 The person whose name appears on the personal danger tag is the only person permitted to conduct work under its protection. Work under someone else's personal danger tag or lock is not permitted.

3.19 Personal danger tags and locks must be removed by the worker at completion of a task or if the worker is required to leave the work site for any reason. If the task is not complete the worker must place a completed out of service tag in its place.

3.20 Both tags are single use only and when removed must be ripped in half and discarded appropriately. All information placed on the various tags must be printed in ink, not pencil.

Safety locks

3.21 Safety locks provide an additional level of protection when installing, repairing or maintaining plant.

3.22 Safety locks conjoined to a personal danger tag will be installed to secure the means of isolation. Locks will be affixed through the appropriate isolation point with the keys removed to prevent accidental removal. All keys to the lock will stay with the person responsible for applying the isolation.

- 3.23 In some instances, the plant isolation mechanism may not be physically large enough to restrain the large numbers of required isolation devices. In cases such as this, a multiple lock device (lockout scissors) can be used to restrain the numerous devices for workers until the completion of the task. Example: typical Isolation of an electrical distribution board:



Removing tags/locks

- 3.24 Once the plant is safe to be returned to service, any remarks on the out of service tag, if affixed, must be checked for additional information, the guards have been reinstated, and all workers notified that the plant will return to service.
- 3.25 Only the worker who signed the tag/lock can remove and destroy the tag. Workers must not remove or destroy, or operate plant, with another person's personal danger tag or locking device in place.
- 3.26 Safety locks conjoined to a personal danger tag will be installed to secure the means of isolation. Locks will be affixed.

4 RESPONSIBILITIES

Compliance, monitoring and review

- 4.1 Individuals at University worksites (including any work activities that are conducted off-site) have a duty to take reasonable care for their own health and safety and must not adversely affect the health and safety of other persons. They must comply with relevant instruction and co-operate with any reasonable policy document relating to health and safety at the workplace.
- 4.2 Safety and Wellbeing will assist facilitate compliance, monitoring and review. Please refer to the [Work Health and Safety Roles and Responsibilities Procedure](#).
- 4.3 The Director People and Culture and Safety and Wellbeing Manager are responsible for implementing, monitoring, reviewing and ensuring compliance with this procedure.

Reporting

- 4.4 Non-compliances with this procedure must be reported as an incident and will be investigated in accordance with the [Incident and Hazard Reporting and Investigation Procedure](#).

Records management

- 4.5 Employees must manage records in accordance with the [Records Management Policy and Procedure](#). This includes retaining these records in a recognised University recordkeeping information system.
- 4.6 University records must be retained for the minimum periods specified in the relevant [Retention and Disposal Schedule](#). Before disposing of any records, approval must be sought from the Records and Privacy Team (email records@cqu.edu.au).

5 DEFINITIONS

- 5.1 Terms not defined in this document may be in the University [glossary](#).

Terms and definitions

Competent person: as defined in the [Work Health and Safety Regulation 2011](#) (Qld).

Electrical equipment: any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire:

- used for controlling, generating, supplying, transforming or transmitting electricity at a voltage greater than extra low voltage, or
- operated by electricity at a voltage greater than extra low voltage, or

c) that is, or that forms part of, a cathodic protection system.

However, “electrical equipment” does not include any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire forming part of a vehicle if:

- a) it forms part of a unit of the vehicle that provides propulsion for the vehicle; or
- b) its source of electricity is a unit of the vehicle that provides propulsion for the vehicle.
([Electrical Safety Act 2002](#) section 14)

Electrical safety: for a person or property, means the person or property is electrically safe. ([Electrical Safety Act 2002](#) section 10)

Electrical work: is the manufacturing, constructing, installing, testing, maintaining, repairing, altering, removing, or replacing of electrical equipment.

Examples of electrical work:

- Installing low voltage electrical wiring in a building.
- Installing electrical equipment into an installation coupler or interconnector.
- Replacing a low voltage electrical component of a washing machine.

Electrically safe: means

- a) for a person or property, that the person or property is free from electrical risk, and
- b) for 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 equipment, an electrical installation or the works of an electricity entity are operated or used, that all persons and property are free from electrical risk from the operation or use of the equipment, installation or works, and
- d) for the way electrical work is performed, that all persons are free from electrical risk from the performance of the work, and
- e) 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
- f) 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 Safety Act 2002](#) section 10 (2))

Isolated: disconnected from all possible sources of supply and rendered incapable of being made live without premeditated and deliberate operation. Under the Model Code of Practice: How to manage work health and safety risks, a suitable warning safety or sign which involves locks, rendering mechanisms inoperative or a combination of these, must be attached. Examples of how isolation can be achieved is by opening isolators, racking out circuit breakers, removing fuses or links, inhibiting the operation of a mechanism by locking, or a combination of these measures.

Plant: (as defined in the [Work Health and Safety Act 2011](#)), includes:

- machinery, equipment, appliance, pressure vessel, implement and tool
- any component of any of those things, and
- anything fitted or connected to any of those things.

6 RELATED LEGISLATION AND DOCUMENTS

Australian Standard AS 1319-1994 Safety signs for the occupational environment

[Electrical Safety Act 2002](#) (Qld)

[Incident, Hazard Reporting and Investigation Procedure](#)

[Model Code of Practice: How to manage work health and safety risks](#) (SafeWork Australia)

[Occupational Health and Safety Policy](#)

[Work Health and Safety Act 2011](#) (Qld)

[Work Health and Safety Regulation 2011](#) (Qld)

[Work Health and Safety Roles and Responsibilities Procedure](#)

7 FEEDBACK

7.1 Feedback about this document can be emailed to policy@cqu.edu.au.

8 APPROVAL AND REVIEW DETAILS

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Notes	