

General Isolation Overview

Use of Warning Tags

A warning tag is used to give safety advice and protect equipment, or it may be used to give an indication of the status of the equipment after maintenance repairs.

The reason for applying the tag must be written in the appropriate area on the tag.

If a piece of equipment is made safe for use, or the fault is being investigated, the Warning Tag may be removed by:

- The person who attached the Warning Tag.
- The person who is responsible for the repair or maintenance of the equipment, or
- The supervisor responsible for the equipment.

Verification of Isolation:

After plant has been shut down, locked out, and tagged; all isolated power sources should be tested prior to any person starting work on the plant. This testing should be done through attempting to activate the plant, or by testing with appropriate instruments. This testing should be undertaken by a person who has understanding of the plant and its operation, including any control stations (local and remote) or devices (such as sensors) which may start or operate the plant. Where electricity is to be tested with instruments, a licenced electrical worker shall be required to undertake these tests.

It is not safe to assume that an isolator has locked out an electricity source simply due to it being in an open position. While normally this should open an air gap between contact points, it is possible for contact points to become welded together by the passage of electricity and remain so even when the isolator appears to be open/off.

Work on the plant must not begin until tests have confirmed that it is safe to do so. The operation of any instruments required to test isolations should be checked before use.

Lockout Stations:

All campuses must have at least one Lockout Station where locks and tags are located for use by workers.

The Lockout Station should contain, as a minimum:

- Locks, including Personal Locks, and any other lock necessary as per these procedures.
- Danger Tags.
- Warning Tags.
- Isolation Devices as appropriate, such as valve covers, chains etc.
- Isolation registers; and
- Multi-lock hasps

Every department and school with a requirement for a Lockout Station shall be responsible for ensuring that the Lockout Stations have adequate equipment for the isolations that it undertakes. During periods of high usage, such as maintenance

to allow for the higher levels of use.

Group Lockout:

Where multiple workers need to work on, or gain access to, the same piece of equipment, machinery or electrical system for repairs or maintenance a “group” isolation procedure may be used.

There are two methods available for Massey University workers to use.

Individual Isolation Option

In this option, each worker must attach a Personal Lock to every isolation device using a multi-lock hasp. This allows up to 6 workers to isolate a single isolation device using a Personal Lock. The Hasp passes through the isolation device, and locks are fitted to the hasp.

Lockbox Option

In this option, which is appropriate for larger groups or more complex isolations, a “group” isolation lock (individually keyed) is applied to the isolation and the key put into a “lockbox”. Each worker then reviews the isolation and locks the box with a Personal Lock so the Group Lock key cannot be removed.

Removal of Locks and Tags

Only the person who applied the lock and tag may remove them. Locks and tags are to be removed by the person who applied them in the following circumstances:

- Work has finished, and the machine is to be re-energised.
- Any time where there is a handover between workers, as per this procedure.

Anyone who fails to remove their lock at the end of work, will be expected to return to campus and remove their isolation, at their own expense.

Where locks and tags were to be removed, and the responsible person has left, then the following actions must be taken:

- Attempt to contact the person who applied the lock and request them to return to the job and remove the lock.
- If the person who placed the lock cannot be contacted, or is unable to return and remove it, a group of three people can authorise the removal of the lock if a careful examination of the lock scenario has been undertaken and it is safe to do so.
- This group must include the Facilities Services Manager (or designated person within a school), and at least 2 other people familiar with both the plant/equipment and these procedures. If the lock is for work being undertaken on electrical equipment, then a licenced electrical worker must be involved and must confirm that it is safe to remove the lock.

Any event involving the removal of locks and tags using this procedure must be documented in writing by a member of the group.

Handover

Individuals must remove their own Personal Lock (and Danger Tag) if the isolated plant is to be handed over to other workers. Following handover, and before commencing work on the plant, the relieving person must install their own personal lock and tag if the isolation is to be maintained.

Where a physical handover is not possible due to operational hours or staffing, the person responsible for the isolation must ensure that the relieving person is notified of the isolation status.