

Facility Lockout/Tagout Policy

Purpose

This policy establishes safe and consistent procedures for isolating and disabling equipment at Dallas Makerspace when it is unsafe, malfunctioning, or otherwise requires restricted use. Lockout/Tagout (LOTO) ensures that energy sources are properly isolated before maintenance, repair, or evaluation, and that equipment is not used until cleared.

Scope

This policy applies to all members, committees, Board Members, and Officers who interact with powered equipment at DMS. It covers electrical, mechanical, pneumatic, and other forms of hazardous energy. This policy will go into effect the day that it is approved by the Logistics Committee.

Definitions

- **Red Hatting** – A committee-level action marking a piece of equipment as unsafe or not available for use. This does not physically isolate power but serves as a visible marker to members indicating that the equipment is unavailable to use until repaired or the issues are addressed.
 - **Lockout** – Physically securing the energy source (e.g., electrical plug, breaker, valve) using a lock so the equipment cannot be operated.
 - **Tagout** – Applying a visible tag (or equivalent notice) indicating that the equipment is locked out or unavailable for use.
 - **Testout** – Testing the equipment to ensure that the energy source is isolated.
 - **Logistics Team** – The group responsible for facilities management and lock inventory.
 - **Committee** – The equipment-owning or responsible group within the makerspace.
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Policy Statements

1. Committee Authority

- Committees may **red hat equipment** at their discretion to immediately signal that it should not be used.
 - Committees may also **request a lock from Logistics** to fully isolate the energy source if required (Locks are in the North Warehouse Electrical Room, Keys are in the Infrastructure Office)
 - In an emergency, if access to the Infrastructure Office is unavailable, **a zip tie may be used to secure the energy source closed** as a temporary measure until a proper lock can be applied.
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2. Removing Committee Locks

- If a committee requested and placed a lock, that committee may remove it **once the issue has been resolved**.
 - Alternatively, Logistics may remove the lock upon verification with the committee that the issue is addressed.
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3. Locks Applied by Logistics

- If Logistics applies a lockout/tagout directly (without committee request), the lock may **only** be removed by:
 - The **person who placed the lock**, or
 - The **Chief Operating Officer (COO)** of the makerspace.
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4. Member Responsibilities

- Members must not attempt to bypass, remove, or tamper with any red hat, tag, zip tie, or lock applied to equipment.
 - Members who discover unsafe conditions should immediately notify the responsible committee or the Logistics team.
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5. Documentation

- All lockout/tagout actions (whether by committee or Logistics) must be logged in the makerspace's facilities tracking system (or logbook), including:
 - Equipment name and location
 - Reason for lockout/tagout
 - Date/time applied
 - Person/committee responsible
 - Clearance details when removed

6. Lockout / Tagout / Testout Procedure (LOTOTO)

When equipment is locked out due to unsafe conditions, malfunction, maintenance, or evaluation, the following procedure **must** be followed to ensure hazardous energy is properly isolated and verified.

6.1 Preparation

Before applying a lockout:

- Identify **all energy sources** associated with the equipment (electrical, mechanical, pneumatic, hydraulic, stored energy, etc.).
 - Notify any members and the committee chair that the equipment is being removed from service by placing a red hat on the device and posting a message on Talk that the equipment is down.
 - Determine whether red hatting alone is sufficient or if full lockout is required.
 - If there is **any risk of unexpected energization**, a lockout **must** be used.
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6.2 Equipment Shutdown

- Power down the equipment using normal operating controls (e.g., power switch, stop button).
 - Allow all moving parts to come to a complete stop.
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6.3 Energy Isolation (Lockout)

- Physically isolate the equipment from its energy source(s), including but not limited to:
 - Unplugging electrical cords
 - Opening breakers or disconnects
 - Closing valves
- Apply an approved lock to the energy-isolating device.
- Attach a tag indicating:
 - Equipment is locked out
 - Reason for lockout
 - Date/time applied
 - Responsible person or committee

*Zip ties may only be used as a **temporary emergency measure** and must be replaced with a proper lock as soon as practicable.*

6.4 Dissipation of Stored Energy

- Release or secure any stored or residual energy, such as:
 - Bleeding pneumatic or hydraulic pressure
 - Discharging capacitors
 - Blocking or securing mechanical components
 - Verify that the equipment is in a **zero-energy state**.
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6.5 Testout (Verification)

Before any maintenance, repair, or return to service:

- Attempt to start or operate the equipment using normal controls.
- Confirm that:
 - The equipment does **not** energize
 - No motion or activation occurs
- Return controls to the "off" or neutral position after testing.

***This step is mandatory.** Lockout is not considered complete until testout has been performed.*

6.6 Work or Evaluation

- Perform maintenance, repair, or evaluation only after successful testout.
 - Locks and tags must remain in place for the entire duration of work.
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6.7 Return to Service

Before removing a lockout/tagout:

- Ensure all tools, parts, and materials are removed.
 - Verify that guards, covers, and safety devices are properly reinstalled.
 - Confirm the area is clear of personnel.
 - Notify affected members that the equipment is being returned to service.
 - Remove the lock and tag according to the authority rules in Sections 2 and 3.
 - Restore energy and test normal operation.
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6.8 Documentation

- All LOTOTO actions must be documented per Section 5, including confirmation that testout was performed.
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Enforcement

Failure to comply with this policy may result in disciplinary action, up to and including an immediate suspension of makerspace privileges, up to permanent expulsion. Lockout/tagout is a core safety measure, and all members are expected to respect and uphold it.