

GEORGIA INSTITUTE OF TECHNOLOGY
ENVIRONMENTAL HEALTH AND SAFETY
LOCK OUT - TAG OUT PROCEDURE

PURPOSE

To ensure that employees and contractors at GEORGIA TECH are protected from accidental or unexpected activation of mechanical & electrical equipment and/or pressurized power sources during inspection, maintenance or construction activities.

SCOPE

The requirements of this procedure apply to all affected GEORGIA TECH employees.

RESPONSIBILITIES

The EHS General Safety unit is responsible for:

- Overall effectiveness of the procedures and practices described in this procedure.

The Facilities Department is responsible for:

- Ensuring that all GEORGIA TECH employees and contractors follow this procedure when performing lockout/tagout.
- Providing the necessary support to enable effective implementation of this procedure and its related activities.

DEFINITIONS

- **LOTO:** Lockout - Tagout
- **Lockout:** The use of appropriate lockout devices to safely prevent equipment from being reactivated while work is in progress.
- **Tagout:** The use of tags to identify equipment that cannot readily be locked out of service and to notify personnel that the equipment has been taken out of service and must not be reactivated while work is in progress.
- **Energized:** Connected to an energy source or containing residual or stored energy.
- **Energy Source:** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- **Authorized employees:** Any properly trained person who has the authority and responsibility to perform the lockout/tagout assignments.

SPECIFIC PROCEDURES LOTO

Lockout/Tagout System Procedure

- Notify affected employees that a lockout/tagout system is going to be utilized and the reason it is necessary. The authorized employee shall know the type and

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magnitude of energy that the machine or equipment utilizes and shall understand the associated hazards.

- If the machine or equipment is operating, shut it down by the normal stopping procedure (press stop button, etc.).
- Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
- Lockout/Tagout the energy isolating devices with assigned individual lock(s) and tag(s).
- After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating control(s) to neutral or off position after the test.
- The equipment is now lockout/tagout.

Restoring Equipment to Normal Operation

- After the servicing is complete and equipment is ready for normal operations, check the area around the equipment to ensure that no one is exposed.
- After all tools have been removed from the equipment, guards have been reinstalled and employees are in the clear, remove all lockout/tagout devices. Operate the energy isolating devices to restore energy to the equipment.

LOTO – Multiple Locks

In the preceding steps, if more than one individual is required to lockout/tagout equipment, each shall place his/her own personal lockout/tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout/tagout device (hasp) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet that allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.

Temporary Removal of Lockout/Tagout Devices

In situations where lockout/tagout devices must be temporarily removed from the energy isolating device and the energized equipment, to test or position the equipment, the following sequence of actions will be followed:

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- Remove non-essential items and ensure that equipment components are operationally intact.
- Notify affected employees that lockout/tagout devices have been removed and ensure that all employees have been safely positioned or removed from the area.
- Have employees who applied the lockout/tagout devices remove the lockout/tagout devices.
- Energize and proceed with testing or positioning.
- De-energize all systems and reapply energy control measures in accordance with the lockout/tagout system procedure described above.

Maintenance of Equipment

Where maintenance, repairing, cleaning, servicing, adjusting, or setting up operations cannot be accomplished with the energy source disconnected, such operations may only be performed under the following conditions:

- The operating station (e.g. external control panel) where the machine may be activated must at all times be under the control of a qualified operator.
- All participants must be in clear view of the operator or in positive communication with each other.
- All participants must be beyond the reach of machine elements that may move rapidly and present a hazard.
- Where machine configuration or size requires that the operator leave the control station to install tools, and where there are machine elements that may move rapidly, if activated, such elements must be separately locked out.
- During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

Removal of LOTO

A system shall be in place that addresses device removal if the authorized employee who applied the lockout/tagout device is unavailable to remove it. The employee's direct supervisor may only remove the authorized employee's lockout/tagout device (s), after necessity has been established. The procedure shall include at least the following procedure:

- The employee's direct supervisor shall investigate the situation and verify that the authorized employee who applied the device is not at the facility.
- All reasonable efforts shall be made to contact the authorized employee to inform him/her that his/her lockout/tagout device will be removed.
- The authorized employee's direct supervisor is certain that removal of the lockout/tagout device will not endanger employees.

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- The authorized employee's direct supervisor will complete the Removal of lockout/tagout form.
- Prior to resuming work at the facility, the authorized employee shall be notified that his/her lockout/tagout device was removed in his/her absence.

LOTO INSPECTIONS

An authorized employee must perform inspections of the energy control procedures annually. The inspections must review lockout/tagout procedures and correct any issues.