

TRINITY INTERNATIONAL UNIVERSITY

TIU POLICY: **Lockout/Tagout Policy**

TIU POLICY #: **P-745**

STATUS: **Approved, April 2012**
 Updated, August 2015

I. PURPOSE:

To establish the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment, in compliance with OSHA regulations.

II. SCOPE:

This policy applies to all situations where machinery or equipment which contains kinetic or potential energy is being serviced or maintained at Trinity International University (University).

III. POLICY:

A. Hardware

Hardware includes locks, tags, and clamps. Every employee authorized to perform lockout procedures will obtain the lock(s) needed to safely lockout and repair University equipment from the parts room prior to working on equipment. Each lock used for lockout will identify the person using it. The University will purchase all lockout hardware and employees are responsible for using it properly. Lockout hardware will be used only for lockout. It will not be used on toolboxes, lockers or for any other reason.

B. Compliance with this Program

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance will not attempt to start, energize, or use that machine or equipment.

C. Equipment Powered by a Cord with an Attached Plug

Potentially hazardous energy in cord and plug connected equipment must be controlled by the employee. Employees can protect themselves by preventing the equipment from becoming re-energized during the servicing operation. Follow either of these two procedures.

1. Unplug the equipment from its electrical socket. Place a lockable cover over the plug. Place your lock on the plug cover.
2. Unplug equipment from its electrical socket. Keep the plug in your possession at all times during equipment servicing or keep the plug within arm's reach and in your line of sight at all times during equipment servicing.

D. Sequence of Lockout

Lockout procedures, other than cord with plug, will follow this sequence:

1. Notify all employees who have access to the equipment being repaired that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2. The employee servicing or maintaining University owned equipment will identify the type and magnitude of the energy that the machine or equipment utilizes, will understand the hazards of the energy, and know the methods to control the energy.
3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
4. De-activate the energy isolating device(s) by disconnect the switch(es), valve(s), breaker(s) etc. so that the machine or equipment is isolated from the energy source(s).
5. Lock out the energy isolating device(s) with assigned individual lock(s).
6. Stored or residual energy (such as that in capacitors, 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 grounding, repositioning, blocking, bleeding down, etc.
7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed. Then verify the equipment is isolated by attempting to start equipment or by using metering devices such as electrical meters.
8. Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.
9. The machine or equipment is now locked out.

E. Testing or Positioning of Machines

In situations where the lockout/tagout device must be temporarily removed and the

machine or equipment is to be energized in order to test or position the machine, the following will apply:

1. Clear the machine/equipment of all tools and materials;
2. Remove employees from the machine/equipment area;
3. Remove the lockout/tagout device;
4. Energize and perform the testing or positioning of the machine/equipment;
5. De-energize machine/equipment and reapply the lockout/tagout device.

F. Restoring Equipment to Service

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps will be taken:

1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact;
2. Check the work area to ensure that all employees have been safely positioned or removed from the area;
3. Verify that the controls are in neutral;
4. Remove the lockout devices;
5. Re-energize the machine or equipment;
6. Notify employees who have access to the machine or equipment that the servicing or maintenance is completed and the machine or equipment is ready for use.

G. Electrical Lockout

Authorized employees who perform electrical maintenance where the electrical circuit has been locked out (no work is to be done on live parts) will follow these procedures:

1. Where existing conditions permit, a tag used without a lock will be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.
2. A qualified person will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are de-energized. The test will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed even through specific parts of the circuit have been de-energized and presumed to be safe.

H. Procedure Involving More than One Person

Every employee servicing a piece of equipment that must be locked out is required to be protected from accidental machine movement or startup with his or her separate lock

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

I. Lock Removal

An employee will never remove another person's lockout without approval from the employee whose lock is being removed or under management supervision. If an employee forgets to remove a lockout/tagout device and goes home, the company management will make every effort to get in touch with the authorized employee. If the employee cannot be contacted, another authorized employee and the supervisor will check out the equipment and make sure there is no danger in removing the lock. A supervisor will remove the device. The absent authorized employee will be notified that his lock was removed before he returns to work.

J. Lockout/tagout Procedures for Outside Contractors

Outside contractors will use the lockout/tagout procedure enforced by their own company. If the outside contractor does not have procedures regarding control of hazardous energy, they may use our procedures. The outside contractor will provide us a copy or description of their procedure so that we can ensure that our employees understand and comply with the restrictions and prohibitions of the outside contractor's lockout procedures.

K. Training

All Maintenance, Grounds, and Custodial employees will be trained in our lockout/tagout procedures. Levels of training will depend upon each employee's involvement with our procedures. All training will be documented and records will be kept by the employee's supervisor.

"Authorized" employees are those who perform machine maintenance and servicing that requires lockout. They are the only individuals who will lockout equipment and will be expected to know our lockout procedures. Training for authorized employees will include the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control. "Affected" employees are those who work in areas where lockout may take place. They will not perform lockout procedures, nor service or repair any locked out equipment. Training for affected employees will include the purpose and

use of the energy control procedure.

L. Equipment Replacement, Repair and Modification

To meet all OSHA requirements and provide equipment capable of being locked out effectively and safely, controls that can accept locks and lockout devices will be installed whenever new equipment is purchased, or old equipment undergoes major repair or modification. This policy applies to production machinery, auxiliary equipment, and any other devices or machines that must be locked out during servicing or repair to prevent accidental machine movement or startup that could injure employee.