



EAST TENNESSEE STATE UNIVERSITY

Facilities Management

Policy Number: 700.6
Title: Lockout/Tag Out Policy
Implementation Date: 2004
Last Audited: June 2nd, 2016
Last Revised: March 25th, 2015

Introduction

This policy contains the necessary elements of a hazardous energy control program, which includes documented Lockout/Tagout procedures, employee training and periodic inspections as required by the Occupational Safety and Health Administration (OSHA) **Control of Hazardous Energy Sources (Lockout/Tagout) Standard**, 29 CFR 1910.147.

Anyone having questions concerning this plan may contact the Environmental Health and Safety Office, 439-6028.

Definitions

Authorized employee: An employee who locks or tags machines or equipment in order to perform servicing or maintenance.

Affected employee: An employee who is required to use machines or equipment on which servicing is performed under the Lockout/Tagout standard or who performs other job responsibilities in an area where such servicing is performed.

Energized: Machines and equipment are energized when they are connected to an energy source or they contain residual or stored energy.

Energy-isolating device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole

can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout: The placement of a lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device: Any device that uses positive means, such as a lock, blank flanges and bolted slip blinds, to hold an energy-isolating device in a safe position, thereby preventing the energizing of machinery or equipment.

Servicing and/or maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing machines or equipment, including lubrication, cleaning or unjamming of machines or equipment, and making adjustments or tool changes, where employees could be exposed to the unexpected energizing or startup of the equipment or release of hazardous energy.

Tagout: The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device: Any prominent warning device, such as a tag and a means of attachment that can be securely fastened to an energy-isolating device to indicate that the machine or equipment to which it is attached may not be operated until the tagout device is removed.

Procedures

GENERAL LOCKOUT / TAGOUT PROCEDURES for DE-ENERGIZING EQUIPMENT

The following procedures apply in situations where **only one** energy source exists for machinery or equipment.

To properly de-energize and eliminate all sources of potential hazardous energy during servicing and maintenance operations and to prevent an employee from omitting an important step in the energy control procedure,

authorized employees must adhere to the following Shutdown and Restart procedures:

A. SHUTDOWN PROCEDURES—ESTABLISHING LOCKOUT/TAGOUT

1. Prepare for Shutdown - Locate and Identify

Survey the work area to locate and identify all energy isolating devices to be certain which switch(s) and valve(s) apply to the machine or equipment to be locked out. (*If more than one energy source is involved, the Machine-Specific Lockout/Tagout Procedure must be followed*).

2. Notify

Notify all affected employees that a lockout/tagout is about to take place, the reason for the lockout/tagout, and the specific machinery or equipment affected.

3. Shut Down

If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).

4. Isolate

Operate the disconnect switch, circuit breaker, valve or other energy isolating device to isolate (disconnect) the machine or equipment from its energy source.

5. Lockout and Tagout

Apply individually assigned lockout and tagout devices to the energy isolating device.

6. Relieve/Restrain Stored Energy

Stored energy such as that in rotating flywheels, hydraulic systems, springs, etc. must be dissipated or restrained by grounding, locking, bleeding down, etc.

7. Clear the Area and Test

Clear the area around the machine or equipment. Make sure that all personnel are safely positioned or removed from the area. Then test all the operating controls by putting them in the "on" position to ensure that the energy source has been successfully disconnected.

CAUTION: Return the operating control(s) to the neutral or off position before proceeding with servicing or maintenance work.

LOCKOUT/TAGOUT IS NOW COMPLETE - the authorized employee may proceed with servicing or maintenance work.

B. RESTART PROCEDURES—REMOVAL OF LOCKS AND TAGS

1. *Check Machine/Equipment*

Check the machine/equipment and surrounding area to ensure that nonessential objects have been removed, guards have been reinstalled and that the machine/equipment is operationally intact.

1. *Verify*

Verify controls on the machine/equipment are in the "neutral" or "off" position and that all the employees are safely positioned or removed from the area.

2. *Remove Locks and Tags*

Remove lockout and tagout devices and reenergize.

3. *Notify Affected Employees*

Before restarting machinery/equipment, notify affected employees that the servicing or maintenance is complete and that locks and tags have been removed.

SPECIAL CIRCUMSTANCES

A. LOCKOUT/TAGOUT PROCEDURE INVOLVING MORE THAN ONE PERSON (GROUP LOCKOUT/TAGOUT)

If more than one authorized employee is required to Lockout or Tagout equipment, each person shall place their own personal Lockout device or Tagout device on the energy isolating device(s). When an energy-isolating device cannot accept multiple locks, a multiple lockout hasp will be used. As each person no longer needs to maintain their lockout protection, that person will remove his/her lock from the hasp. Employees must NEVER depend upon someone else's lockout device, and must ALWAYS use their individually assigned lockout device.

B. TAGOUT ONLY PROCEDURE

Tagout without a lock is allowed ONLY when machinery or equipment is incapable of being locked out. Tagout may be implemented ONLY with the prior knowledge and approval of the appropriate supervisor, using the following procedures.

1. The authorized employee will advise the supervisor that lockout is not possible.

2. The authorized employee and supervisor will determine if other equally effective controls can be implemented, such as the removal of a valve stem, isolating a circuit element, or by blocking a controlling switch.
3. Supervisors must provide training to the authorized and affected employees involved in the tagout operation at the time tagout is to be conducted.
4. The authorized employee will follow the applicable Lockout/Tagout Procedures outlined in this policy, omitting lockout.
5. The authorized employee will securely attach his/her tagout device to the energy isolating device where a lockout device would have been attached.

C. SHIFT CHANGES

When equipment and machinery must be serviced by more than one shift, a procedure must be established for the orderly transfer of responsibility from one shift to another. In developing this procedure, the following must be taken into account:

1. Each authorized employee must ensure that equipment he/she is working on is locked and tagged out with his/her individually assigned lockout and tagout device. Employees must NEVER depend on someone else's lockout device for protection.
2. Authorized employees must remove their individually assigned lockout and tagout devices once service or maintenance work is completed.
3. Lockout/tagout devices must NEVER be left on beyond an authorized employee's work shift without supervisor approval.

D. EQUIPMENT-SPECIFIC LOCKOUT / TAGOUT PROCEDURES

If servicing or maintenance work requires controlling more than one energy source on a machine, written Lockout/Tagout Procedures must be developed for each specific machine. If the methods to control energy sources are identical for a group of machines, then one set of procedures may be developed for the group. Environment Health & Safety is available to assist in developing machine-specific procedures.

E. REMOVING LOCKOUT AND TAGOUT DEVICES

The key to each lockout device must be in the sole possession of the employee to which it was assigned. Only the **authorized employee** who applied the lockout or tagout device may remove it, except as noted below.

EXCEPTION: When the **authorized employee** who applied a lockout or tagout device is not available to remove it, the device may be removed **ONLY under the direction of TWO supervisors** provided that:

1. Absolute verification has been made that the employee is not on university grounds or otherwise available.
2. Every reasonable effort has been made to contact the employee to notify him/her that his/her lockout/tagout device has been removed.
3. The employee is informed before returning to work that his/her lockout/tagout device has been removed.

PERIODIC INSPECTIONS

Documented periodic inspections must be made at least **annually** by supervisors to verify that Lockout/Tagout procedures are understood by employees and are being followed properly. A form in **Appendix A** is provided for this purpose, a copy of which should be sent to Environmental Health & Safety. Use one form for each machine or equipment that has a written Lockout/Tagout Procedure. Keep the original, completed form on file, and send a copy to Environmental Health & Safety. The Environmental Health and Safety Department is available to assist in conducting periodic inspections.

CONTRACTORS

ETSU Facilities Management 's Lockout/Tagout policy shall be made available for review to all contractors that are involved in work activities subject to OSHA's Lockout/Tagout regulations (29 CFR 1910.147). The Office of Environmental Health & Safety will inform the contractor that Lockout/Tagout procedures shall be implemented through compliance with the contractor's Lockout/Tagout program meeting the requirements of 29 CFR 1910.147.

All Facilities management employees that perform work in cooperation with contractors must be informed of the restrictions and prohibitions associated with an outside Contractor's Lockout/Tagout procedures. In no situations is a contractor allowed to remove university lockout and tagout devices without the expressed permission of Facilities Management. The procedures outlined in the **REMOVING LOCKOUT AND TAGOUT DEVICES** section of this policy shall apply.

TRAINING

Training will be provided by Environmental Health & Safety in conjunction with appropriate supervisors and lead workers. The following training is required:

1. **Authorized employees** will receive initial training in how to recognize hazardous energy sources, the type and magnitude of the energy available in the workplace, and the required Lockout/Tagout procedures to be followed to ensure energy isolation and control.
2. **Affected employees** will be instructed in the purpose, use and restrictions of Lockout/Tagout and how to recognize that Lockout/Tagout is being implemented.
3. **Authorized employees** will receive retraining whenever:
 - a) their job assignments change;
 - b) a change in machines, equipment or processes creates a new hazard;
 - c) Lockout/Tagout procedures change; or
 - d) observations or inspections reveal that an employee is not following or does not fully understand the Lockout/Tagout procedures.
4. Training will be documented and records maintained by Environmental Health & Safety.

Responsibilities

All Facilities Management employees are responsible for adhering to this policy. All Facilities Management directors and supervisors will ensure that their subordinates adhere to this policy. Facilities Management employees who fail to comply with this policy may be subject to disciplinary action for noncompliance with University policies.

Contact Persons

Associate Vice President
Director of Facilities Management Operations
Director of Environmental Health & Safety
Health & Safety Specialist

Forms

Lockout/Tagout Form – Appendix A

Approved by: _____
William Brady Rasnick, Jr., Associate Vice President, Facilities
Management

Date approved: _____

Audited: February, 2015
June 2, 2016

Revised: March, 2015

Appendix A	Physical Plant Shop:	Date:
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Machine/Equipment Inspected:

Employees included in the inspection:

1.	2.	3.
4.	5.	6.
7.	8.	9.

Review the Lockout/Tagout Procedures and employee responsibilities with the authorized employees and complete the following:

1. Do the employees understand the Lockout/Tagout Procedures and their responsibilities under the Physical Plant's Lockout/Tagout Policy?

YES NO If no, indicate corrective action taken:

2. Do the employees follow the Lockout/Tagout Procedures?

YES NO If no, indicate corrective action taken:

3. Are the established Lockout/Tagout Procedures effective to provide full protection?

YES NO If no, indicate corrective action taken:

4. Other Problems noted and corrective actions taken:

Person(s) Conducting Inspection:

Name:	Signature:
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