

ENVIRONMENTAL HEALTH & SAFETY  
THE UNIVERSITY OF TEXAS AT TYLER



CONTROL OF HAZARDOUS  
ENERGY PROGRAM  
  
(LOCKOUT/TAGOUT)

2023

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## Lock Out/Tag Out Program

### INTRODUCTION

The OSHA standard for The Control of Hazardous Energy (Lockout/Tagout) 29 CFR 1910.147 outlines the measures for controlling different types of hazardous energy. The LOTO standard establishes the employer's responsibility to protect workers from hazardous energy. Employers are also required to train each worker to ensure that they know, understand, and are able to follow the applicable provisions of the hazardous energy control procedures. The University of Texas at Tyler has developed this program to comply with the OSHA standard and implement procedures to protect its employees.

### SCOPE

This program specifically outlines the purpose, authorization, rules, and techniques to be utilized by on-site contractors to guard against the unexpected energizing, start-up, or release of stored energy that could cause injury. On-site contractors should become familiar with the contents of this program to ensure compliance with its procedures. The Contractor shall ensure his/her employees receive training and documentation for this program.

### PURPOSE

The purpose of this program is to establish lockout/tagout procedures. These procedures include affixing appropriate lockout/tagout devices to energy-isolating mechanisms, and otherwise disabling machines or equipment to prevent unexpected energizing, and start-up or release of stored energy thereby preventing injury to employees.

### DEFINITIONS

**Affected Employee:** An employee whose job requires them to operate or use a machine or piece of equipment on which servicing is being performed under lockout/tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

**Authorized Employee:** A person who implements a lockout/tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or piece of equipment involving a lockout/tagout system procedure.

**Primary Authorized Employee:** The authorized employee who has been vested with responsibility for a set number or group of employees performing service or maintenance on machines or equipment subject to lockout/tagout procedures.

**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 mechanism, in accordance with an established procedure, ensuring that the energy- isolating mechanism and the equipment being controlled cannot be operated until the lockout device is removed.

**Tagout:** The placement of a tagout device on an energy-isolating mechanism, in accordance with an established procedure, which indicates that the equipment, and the mechanism, may not be operated until the tag out device is removed.

**Lockout Device:** A device that utilizes a positive means, such as a lock, to hold an energy-isolating mechanism in the safe position and prevent the energizing of a machine or piece of equipment.

**Servicing and/or Maintenance:** Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or un-jamming of machines or equipment, and making adjustments or tool changes where the employee may be exposed to the unexpected energizing or start-up of the equipment or release of hazardous energy.

## **AUTHORIZATION**

The Contractor will implement the program and ensure that the personnel under his/her supervision are trained in accordance with the procedures established by this program. This responsibility may be delegated to another person or persons within the company providing it is done so in writing and the designated person is qualified and competent. This person will authorize employees to implement the lockout/tagout system procedures.

An employee who has been authorized by the Contractor or his/her designee, may authorized an employee to implement lockout/tagout system procedures on machines or equipment to perform servicing or maintenance; or on a machine that the unexpected energizing or start-up of the machine or equipment or equipment, or release for stored energy could cause injury.

Designated Facilities Management employees will typically coordinate lockout/tagout activities with contractors. This will include submitting a completed Contractor Lockout/Tagout Request form (Appendix A) to Environmental Health and Safety to help ensure appropriate notifications and coordination with other campus departments/personnel are accomplished.

## **LOCKS**

Each employee will be supplied with a blue lock. Each lock will be keyed differently. Only one key is provided with each lock.

Contractor will be supplied with red locks. Each lock will be keyed differently and is only provided with one key. Contractors must fill out the LOTO form for EH&S in order to be supplied with the proper lock. Any contractor not using LOTO procedures will be told to leave the premises.

Yellow locks will be provided for unsafe equipment, or equipment needing repair, but no staff is

available. Yellow locks can be applied by anyone. Yellow locks are all keyed the same, but only authorized staff members will have a key.

## **RULES**

1. The Contractor will establish and document site-specific procedures for energy isolation.
2. A standard supply of lockout/tagout devices will be maintained by Facilities Management and Environmental Health and Safety. Facilities Management employees will check out these devices when lockout/tag out system procedures are required. Care and return of these devices shall be the responsibility of the employee who checked them out.
3. If an energy-isolating mechanism is capable of being locked out, the authorized employee shall utilize lockout procedures, unless the Contractor or his/her designee can demonstrate that utilization of a tagout system will provide full employee protection. When a tag out device is used on an energy-isolating mechanism which is capable of being locked out, the tag out device shall be attached at the same location that the lockout device would have been attached.
4. Lockout devices shall be accompanied by a standard tag, as illustrated below.
5. These devices shall be used for no other purpose than lockout and shall be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one- piece, all-environment- tolerant, nylon cable tie.
6. Environmental Health & Safety or a designated representative shall conduct periodic inspection of the energy control procedures, at least annually, to ensure that the procedures and requirements of 29 CFR 1910.150 are being followed.



## **TRAINING**

The Contractor shall ensure his/her company complies with the energy control program. Compliance will be maintained through training and documentation. The program training includes safe application, usage, and removal of energy controls as described below:

1. Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy present in the workplace, and the methods and means necessary for energy isolation and control.
2. Each affected employee shall be instructed in the purpose and use of the energy control procedures.
3. All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed on the procedures and prohibitions, relating to attempts to restart or re-energize machines or equipment which are locked-out or tagged-out.

4. When tagout systems are used, employees shall also be trained in the following limitations of the tags:
  - a. Tags are essentially warning devices affixed to energy-isolating mechanisms, and do not provide the physical restraint that is provided by a lockout device.
  - b. When a tag is attached to an energy-isolating mechanism, it is not to be removed without authorization of the authorized person responsible for it. The tag should never be bypassed, ignored or otherwise defeated.
  - c. Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area.
  - d. Tags and their means of attachment must be made of materials that will withstand environmental conditions encountered in the workplace.
  - e. Tags must be securely attached to energy- isolating mechanisms so that they cannot be inadvertently or accidentally detached during use.
  - f. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
5. Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or process that presents a new hazard, or when there is a change in energy control procedures. Retraining shall establish employee proficiency and introduce new or revised control methods and procedures as necessary. The Contractor or his/her designee shall certify that employee training has been accomplished, documented and updated on a regular basis. The certification shall contain each employee's name, date of training, and topics covered.

## **PROCEDURES**

*Implementation of the lockout/tagout system shall be performed only by trained, authorized employees.* Affected faculty and staff shall be notified by the Contractor or his/her designee, of the application and removal of lockout/tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

The established procedure for the application of energy control shall cover the following elements and actions and shall be done in the following sequence:

1. Preparation for shutdown:
 

Before an authorized or affected employee turns off a machine or piece of equipment, they shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.
2. Machine or equipment shutdown:
 

An orderly shutdown must be implemented to avoid any additional or increased hazard(s) to employees as a result of equipment de- energization.
3. Machine or equipment isolation:
 

All energy-isolating mechanisms that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).
4. Lockout/tagout device application:

Lockout/tagout devices shall be affixed to each energy-isolating mechanism by authorized employees only. Lockout devices shall be affixed in a manner that will hold the energy in a "safe" or "off" position. Tagout devices shall be affixed in such a manner as will clearly indicate that the operation or movement of energy-isolating mechanisms from the "safe" or "off" position is prohibited.

Where tagout devices are used with energy-isolating mechanism designed with the capability of being locked, the tag shall be fastened at the same point at which the lock would have been attached.

Where a tag cannot be affixed directly to the energy-isolating mechanism, the tag shall be located as close as safely possible to the mechanism, in a position that will be immediately obvious to anyone attempting to operate the machine or equipment.

5. Stored Energy:

Following the application of lockout/tagout devices to energy-isolating mechanisms, all potentially hazardous stored energy shall be rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

6. Verification of Isolation:

Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energizing of the machine or equipment has been accomplished.

7. Release from Lockout or Tagout:

Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed, and actions taken by the authorized employee(s) to ensure the following:

- Inspection: The work area shall be inspected to ensure that non-essential items have been removed and that machine or equipment components are operationally intact.
- Employees: The work area shall be checked to ensure that all employees have been safely positioned or evacuated. Before lockout or tagout devices are removed and before machines or equipment are energized, affected employees shall be notified.

8. Lockout or Tagout Device Removal:

Each lockout or tagout device shall be removed from each energy-isolating mechanism by the employee who applied the device. Exception: When the authorized employee who applied the lockout/tagout device (installer) is not available to remove it, that device may be removed under the direction of the Contractor or his/her designee using the following procedure (Specific training and procedures for such removal shall be arranged by the Contractor.):

- Verification by the immediate supervisor that the employee who applied the device is not at the facility,
- Making all reasonable efforts to contact the authorized employee to inform them that his/her lockout or tagout device has been removed, and
- Ensuring that the authorized employee has this knowledge before they resume work at the facility.

9. Testing or positioning of machines, equipment, or components thereof:

In situations where lockout or tagout devices must be temporarily removed from the energy-isolating mechanism and the machine or equipment energized to test or position the equipment or component thereof, the following sequence of actions shall be followed:

- Clear the machine or equipment of tools and materials.

- Remove employees from the machine or equipment area.
- Remove the lockout or tagout devices.
- Energize and proceed with testing or positioning.

#### 10. Group Lockout or Tagout:

When servicing and/or maintenance is performed by a crew or department, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. This shall be accomplished by:

- The application of a multi-lock accepting device by the primary authorized employee to the energy- isolating device.
- The primary authorized employee attaching his/her lock to the multi- accepting device.
- Each authorized employee shall affix a personal lockout or tagout device to the multi-lock accepting device when they begin work and shall remove those devices when they stop working on the machine or equipment being serviced or maintained.

The primary authorized employee removing his/her lock and the multi-lock-accepting device when all service or maintenance has been completed.

#### 11. Shift or Personnel Changes:

To ensure the orderly transfer of lockout or tagout devices between off-going and on-coming employees and minimize exposure to hazards from unexpected energization, start-up of the machine or equipment, or release of stored energy, these procedures shall be followed:

- The on-coming personnel shall notify the off-going personnel that they are ready to begin work on the machine or equipment.
- All lockout and/or tagout devices attached to the machine or equipment by the off-going personnel shall be removed and immediately replaced with like devices by the on-coming authorized personnel.

The primary authorized employee shall insure that all pertinent coordination between off-going and on-coming personnel has been completed before the on-coming authorized personnel begin work on the machine or equipment and that all necessary energy has been rendered safe.

### **Revisions**

<b>Date</b>	<b>Author/Reviewer</b>	<b>Description/Reason for Change</b>
5/4/2021	T Bay/ P Tate	Reviewed for latest revision/updated year/added revision section
12/6/2021	T Bay/ P Tate	Reviewed for latest revision
2/23/2022	T Bay/ P Tate	Reviewed for latest revision
7/7/2023	T Bay/ K Stapp	Reviewed, updated date, logo, & formatting





# Environmental Health and Safety Contractor Lockout/Tagout Request

Requested Date & Time:

Project Name/Number:

Lockout/Tagout Location:

It is requested that the noted building system have Lockout/Tagout by the owner to allow for our time-in services for the project as enumerated below. The Environmental Health and Safety Department requires a (1) week advance notice given (as a minimum) for research facilities and all lockout/tagout will occur during regular working hours.

I hereby certify the required work has been coordinated and scheduled to be completed within the requested time period and that the Contractor understands lockout/tagout the procedure that is being used.

Yes ( ) No ( ) Has the Contractor been instructed not to remove lockout/tagout devices or start de-energized equipment unless they are the authorized personnel who placed the lockout/tagout?

Yes ( ) No ( ) Did the Contractor verify that the equipment was de-energized?

Yes ( ) No ( ) Did the Contractor follow the lockout/tagout procedure?

Description of work to be performed:

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**Emergency Phone Contact (After Hours):**

Name: \_\_\_\_\_

Phone #: ( \_\_\_\_\_ ) \_\_\_\_\_

Environmental Health and Safety Remarks:

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Contractor Remarks:

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Check with UT Tyler Power Plant/Utilities prior to starting and upon ending work: 903-566-7030

\_\_\_\_\_  
Contractor Signature Date

Coordination Meeting required prior to shut down?  
Yes ( ) No ( )

\_\_\_\_\_  
Facilities Management Signature Date

Coordination Meeting Date/Time:

\_\_\_\_\_  
Environmental Health & Safety Signature Date