

**The University of Texas at Tyler**  
**Program for The Control Of Hazardous Energy**  
**(Lock-out/Tag-out)**



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## Scope

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

## Purpose

The purpose of this program is to establish lock out/tag out procedures. These procedures include affixing appropriate lock out/tag out 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

<b>1. Affected Employee:</b>	An employee whose job requires them to operate or use a machine or piece of equipment on which servicing is being performed under lock out/tag out, or whose job requires them to work in an area in which such servicing or maintenance is being performed.
<b>2. Authorized Employee:</b>	A person who implements a lock out/tag out 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 lock out/tag out system procedure.
<b>3. Primary Authorized Employee:</b>	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 lock out/tag out procedures.
<b>4. Energy Source:</b>	Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
<b>5. Lock Out:</b>	The placement of a lock out 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 lock out device is removed.
<b>6. Tag Out:</b>	The placement of a tag-out 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.

<b>7. Lock Out Device:</b>	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.
<b>8. Servicing and/or Maintenance:</b>	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 Physical Plant Director 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 department providing it is done so in writing and the designated person is qualified and competent. This person will authorize employees to implement the lock out/tag out system procedures.

An employee who has been authorized by the Physical Plant Director or his/her designee, may authorized an employee to implement lock out/tag out 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 release of stored energy could cause injury.

## Rules

1. The Physical Plant Director shall establish and document site- specific procedures for energy isolation.
2. A standard supply of lock out/tag out devices will be maintained in the Physical Plant Electrical Shop, Room 134. Physical Plant employees will check out these devices when lock out/tag out system procedures are required. Care and return of these devices shall be the responsibility of the employee who has checked them out.
3. If an energy-isolating mechanism is capable of being locked out, the authorized employee shall utilize lock out procedures, unless the Physical Plant Director or his/her designee can demonstrate that utilization of a tag out 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 lock out device would have been attached.

4. Lock out devices shall be accompanied by a standard tag, as illustrated below.

5. These devices shall be used for no other purpose than lock out, and shall be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tag out devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tag out 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 29CFR1910.150 are being followed.

## Training

The Physical Plant Director shall ensure Physical Plant complies with the energy control program. Compliance with this program 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.

When tag out systems are used, employees shall also be trained in the following limitations of the tags:

1. Tags are essentially warning devices affixed to energy-isolating mechanisms, and do not provide the physical restraint that is provided by a lock out device.

2. 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.
3. 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.
4. Tags and their means of attachment must be made of materials that will withstand environmental conditions encountered in the workplace.
5. Tags must be securely attached to energy- isolating mechanisms so that they cannot be inadvertently or accidentally detached during use.
6. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.

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 Physical Plant Director 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 lock out/tag out system shall be performed only by authorized employees. Affected faculty and staff shall be notified by the Physical Plant Director or his/her designee, of the application and removal of lock out/tag out 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:

<p><b>1. Preparation for shutdown:</b></p>	<p>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.</p>
<p><b>2. Machine or equipment shutdown:</b></p>	<p>An orderly shutdown must be implemented to avoid any additional or increased hazard(s) to employees as a result of equipment de-energization.</p>
<p><b>3. Machine or equipment isolation:</b></p>	<p>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).</p>
<p><b>4. Lock out/tag out device application:</b></p>	<p>Lock out/tag out devices shall be affixed to each energy-isolating mechanism by authorized employees only. Lock out devices shall be affixed in a manner that will hold the energy in a "safe" or "off" position. Tag out 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.</p> <p>Where tag out devices are used with energy- isolating mechanisms designed with the capability of being locked, the tag shall be fastened at the same point at which the lock would have been attached.</p> <p>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.</p>
<p><b>5. Stored Energy:</b></p>	<p>Following the application of lock out/tag out 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.</p>
<p><b>6. Verification of Isolation:</b></p>	<p>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.</p>

<p><b>7. Release from Lock Out or Tag Out:</b></p>	<p>Before lock out or tag out 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:</p> <ul style="list-style-type: none"> <li>• <b>Inspection:</b> The work area shall be inspected to ensure that non-essential items have been removed and that machine or equipment components are operationally intact.</li> <li>• <b>Employees:</b> The work area shall be checked to ensure that all employees have been safely positioned or evacuated. Before lock out or tag out devices are removed and before machines or equipment are energized, affected employees shall be notified.</li> </ul>
<p><b>8. Lock Out or Tag Out Device Removal:</b></p>	<p>Each lock out or tag out device shall be removed from each energy-isolating mechanism by the employee who applied the device.  <b>Exception:</b> <i>When the authorized employee who applied the lock out/tag out 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.):</i></p> <ul style="list-style-type: none"> <li>• <i>Verification by the immediate supervisor that the employee who applied the device is not at the facility,</i></li> <li>• <i>Making all reasonable efforts to contact the authorized employee to inform them that his/her lock out or tag out device has been removed, and</i></li> <li>• <i>Ensuring that the authorized employee has this knowledge before they resume work at the facility.</i></li> </ul>
<p><b>9. Testing or Positioning of machines, equipment, or components thereof:</b></p>	<p>In situations where lock out or tag out 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:</p> <ul style="list-style-type: none"> <li>• Clear the machine or equipment of tools and materials.</li> <li>• Remove employees from the machine or equipment area.</li> <li>• Remove the lock out or tag out devices.</li> <li>• Energize and proceed with testing or positioning.</li> <li>• De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.</li> </ul>
<p><b>10. On-Site Contractors:</b></p>	<p>Whenever on-site contractors are to be engaged in activities covered by the scope and application of this program, the Physical Plant Director shall inform the outside employer of the</p>

	<p>Physical Plant Director shall inform the outside employer of the lock out/tag out system procedures. The on-site contractor shall ensure that his/her personnel understand and comply with restrictions and prohibitions of UT Tyler's Program for the Control of Hazardous Energy.</p>
<p><b>11. Group Lockout or Tag out:</b></p>	<p>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:</p> <ul style="list-style-type: none"> <li>• The application of a multi-lock accepting device by the primary authorized employee to the energy- isolating device.</li> <li>• The primary authorized employee attaching his/her lock to the multi- accepting device.</li> <li>• 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.</li> <li>• The primary authorized employee removing his/her lock and the multi-lock-accepting device when all service or maintenance has been completed.</li> </ul>
<p><b>12. Shift or Personnel Changes:</b></p>	<p>To insure the orderly transfer of lock out or tag out 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:</p> <ul style="list-style-type: none"> <li>• The on-coming personnel shall notify the off-going personnel that they are ready to begin work on the machine or equipment.</li> <li>• All lockout and/or tag out 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.</li> </ul> <p>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.</p>



