

# **TARLETON STATE UNIVERSITY**

## **LOCKOUT/TAGOUT HAZARDOUS ENERGY PROGRAM**

## LOCKOUT/TAGOUT HAZARDOUS ENERGY PROGRAM - SECTION I

### **GENERAL**

The following information is provided to assist Tarleton State University departments in developing procedures to meet safety requirements for controlling hazardous energy using lockout/tagout techniques.

### **PURPOSE**

This program establishes recommended minimum requirements for the lockout/tagout of energy isolating devices. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before energization or start-up of the machine or equipment or release of stored energy could cause injury. When the energy isolating devices are not lockable, tagout (tagout device) may be used, provided additional training and more rigorous periodic inspections are accomplished. When tagout is used and the energy isolating devices are lockable, full employee protection as well as additional training and more rigorous periodic inspections is necessary. For complex systems, more comprehensive procedures may need to be developed, documented and utilized.

### **SCOPE**

Affected departments of Tarleton are expected to establish a program for the control of hazardous energy. An energy control program shall consist of energy control procedures, employee training and periodic inspections.

### **RESPONSIBILITIES**

\* The Tarleton Safety Office will:

- assist with training as appropriate
- monitor program compliance

\* The department /supervisor will:

- provide appropriate lockout/tagout training for affected employees
- provide necessary equipment for the program
- conduct periodic inspections to assure program compliance

\* The employee will:

- comply with the restrictions and limitations during use of lockout/tagout
- perform the lockout/tagout in accordance with established procedures

## **DEFINITIONS**

1. *Lockable.* An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.
2. *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.
3. *Tagout device.* A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to 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.
4. *Authorized employee.* A person who locks out or tags out machines or equipment in order to perform servicing of maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.
5. *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 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.
6. *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.

## **PROGRAM REQUIREMENTS**

### **Sequence of Lockout**

1. Notify all affected employees 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 authorized employee shall use established procedures to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop, open switch, close valve, etc.).

4. De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy sources(s).
5. Lockout 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, air, gas, steam, or water pressure, etc.) shall 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 isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

### **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 shall be taken.

1. Check the machine or equipment and the immediate area around the machine or equipment 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 and re-energize the machine or equipment.

Note: The removal of some forms of blocking may require re-energization of the machine before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

### **Full Employee Protection (Tagout Procedures)**

1. When a tagout device is used on an energy-isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.
2. In demonstrating that a level of safety is achieved in the tagout program which is equivalent to the level of safety obtained by using a lockout program, all tagout-related provisions together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device shall be demonstrated. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization.

### **Training and Communication**

Training shall be provided to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of energy controls are acquired by employees. The training shall include the following:

1. Each authorized employee shall receive training in 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.
2. Each affected employee shall be instructed in the purpose and use of the energy control procedure.
3. All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out or tagged out.