

# LOCKOUT-TAGOUT

29 CFR 1910.147 details the requirements needed to control hazardous energy while servicing or performing maintenance on machinery or other equipment.

## Types of Hazardous Energy:

Electrical	Mechanical	Gravitational	Thermal
Hydraulic	Pneumatic	Chemical	

## When are Lockout-Tagout Procedures Required:

- Servicing/performing maintenance on energized equipment
- Any form of work on equipment when safety guards or measures are bypassed
- Any form of work which requires the individual to place any part of their body in the point of operation or designated danger zone

## When Are Lockout-Tagout Procedures *Not* Required:

- Minor tool changes or adjustments (i.e. blade and bit changes, table saw adjustments)
- Cord and plug controlled devices (i.e. portable power tools)
- Routine, repetitive changes or adjustments that are integral to the use of the equipment; provided the work is performed using alternative measures that provide effective protection

## Lockout-Tagout Definitions:

- **Affected Employee:** An employee whose job requires them to operate or use a piece of equipment that is affected by the Lockout-Tagout or is working in the area where the maintenance/service is being performed
- **Authorized Employee:** A trained employee who locks out or tags out equipment to perform maintenance/service.
- **Supervisor:** The manager/supervisor of the Authorized Employee
- **Lockout:** The placement of a lockout device on an energy isolating device that ensures the equipment controlled by that energy isolating device cannot be operated until the lock is removed.
- **Tagout:** The placement of a tag on an energy isolating device notifying individuals of the work being performed. University policy never allows just a tag to be affixed to the energy isolating device, a lock and tag must be used anytime equipment needs to be de-energized and serviced

## Stored or Residual Energy:

- **Examples of stored or residual energy:** Capacitors, springs, elevated components, rotating flywheels, hydraulic systems, and air, gas, steam water pressure etc.
- **Methods of Dissipating or Restraining:** Grounding, repositioning, bleeding, blocking etc.

## When Can University Employees work on Energized Equipment:

**Never**—Employees are required to de-energize equipment in accordance with the Lockout-Tagout: Control of Hazardous Energy Standard



Employees are never allowed to work on “live” equipment



Locate the correct energy isolating device



Ensure you have the proper tools to properly perform a lockout-tagout