



Control of Hazardous Energy

Lockout/Tagout

LOCKOUT/TAGOUT Overview

Why this Topic?

OSHA statistics show that six percent of all deaths in the workplace result from the unexpected activation of a machine or other piece of equipment during maintenance or other servicing. “Lockout/Tagout” as it is commonly known, is the method used to prevent hazardous energy, in various forms, from causing injury or death to employees. Your location **MUST** have a written plan, energy control procedures, and employee training to prevent hazardous energy accidents.

Basic Elements

OSHA regulations require employers to develop procedures for isolating energy sources when servicing or maintaining equipment and machinery.

The two terms that directly relate to the Control of Hazardous Energy are:

Lockout: the placement of a device that blocks the flow of energy from a power source to a piece of equipment.

Tagout: the process of attaching a tag to a disconnect switch or other energy isolating device to warn others not to restore energy to the tagged equipment.

Three Types of Employees

Lockout/Tagout involves three types of employees with different levels of responsibility:

Authorized: employees who perform the servicing, maintenance and set-up of equipment or machinery and apply the locks and tags to this equipment.

Affected: employees who operate or use the equipment or machines which

are locked or tagged out when serviced, maintained or set-up.

Other: employees who are neither affected nor authorized employees like the front desk receptionist or the billing clerk, etc.

Lockout Devices

The lockout devices must be durable and substantial. It should identify the person who applied the lockout and should only be removed by the person that applied it.

BASIC TYPES OF HAZARDOUS ENERGY	
ELECTRIC	Electrical energy at typical voltages such as 12, 230 or 240, 460, or 480.
KINETIC	This is energy that’s due to motion, such as springs, fly wheels, etc.
GRAVITY	This is energy that’s due to the position of an object, such as an elevated load that must be blocked to prevent its falling movement.
HYDRAULIC	This is energy that’s due to the pressure stored in cylinders, such as a shock absorber, etc.
STEAM	This is energy that is supplied by steam, which causes pressure that can activate movement.
PNEUMATIC	This is energy that is due to air under pressure in lines, pipes, tanks, etc.
CHEMICAL	This energy is NOT COMMON, but it’s basically energy that is released from a chemical reaction, such as from incompatible, reactive, or combustion reactions.
THERMAL	This energy is also NOT COMMON, but it’s basically energy that is released from heat producing materials or radiant heat.

SAFETY TRAINING SIGN-IN SHEET

Company Name: _____ Date: _____

Subject: Control of Hazardous Energy

The following employees participated in this training. Sign and print your name.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Only an authorized individual is given authority to lockout an energy source on a piece of machinery. The tagout describes the work that is being done and what has been locked out. The only person that can remove the lock is the person who put it on in the first place.

The Procedure

Lockout procedures require several types of key information that include the following points:

- ▲ The written procedure must include specific steps to lockout, and a clear explanation of where those lockout points are for each machine or device.
- ▲ The type of hazardous energy must be explained and evaluated for each device or machine.
- ▲ Machines may have more than one point of lockout and need to control more than one type of energy.
- ▲ The type of lockout must be specified, and that's usually a lock. The lock can be a key or combination device that is under the control of the person who was issued the lock.
- ▲ If lockout procedures happen over several shifts, the lockout changeover must be clear, and

authority and responsibility must be clearly defined. NO LOCK should have to be cut-off if we are clear about who controls it at all times.

- ▲ The company will advise you of other specific requirements, and you will be trained in lockout procedures if you're authorized to perform lockout. If you're affected by lockout, you'll be trained in lockout awareness.

Take the Time

- ▲ OSHA regulations say that employees should be trained in the requirements of lockout/tagout if they will be affected.
- ▲ Review your company's written program for Hazardous Energy Control.
- ▲ Identify who has the authority to lockout equipment in your location.

QUIZ

1. Only an authorized person can lockout equipment or machinery. T or F
2. Hazardous energy is electrical and chemical only. T or F
3. Affected employees can bypass the lockout when they need to work. T or F
4. The lockout/tagout must identify who put the lock on. T or F
5. A machine may have more than one point of lockout. T or F
6. Three types of employees are: authorized, _____, and other.

1. T, 2. F, 3. F, 4. T, 5. T, 6. affected