

Lockout/Tagout (LOTO) Awareness Training

Practical, step-by-step guidance for safer work



Purpose of This Training

- Employees learn **why** LOTO exists, **when** it applies, and **what their role is** in preventing the unexpected release of hazardous energy. The focus is on awareness, not performing authorized lockout procedures.

Training Objectives

By the end of this training, you will be able to:

- Explain what hazardous energy is and why it must be controlled.
- Describe the purpose of Lockout/Tagout.
- Identify common energy sources in the workplace.
- Understand the difference between *authorized*, *affected*, and *other* employees.
- Recognize basic LOTO devices and tags.
- Know what to do—and what NOT to do—when LOTO is in progress.
- Report unsafe conditions or LOTO violations.

What Is Hazardous Energy?

Hazardous energy is any energy that can cause injury if it is released unexpectedly. This includes:

- **Electrical** — stored charge, live circuits, capacitors
- **Mechanical** — moving parts, springs, flywheels
- **Hydraulic** — pressurized fluid systems
- **Pneumatic** — compressed air
- **Thermal** — extreme heat or cold
- **Chemical** — reactions, stored pressure, flammable vapors
- **Gravitational** — elevated loads, suspended equipment

Even small amounts of stored energy can cause severe injuries if not controlled.

What Is Lockout/Tagout (LOTO)?

LOTO is a safety process used to **isolate energy sources** and **prevent accidental startup** of machines or equipment during servicing or maintenance.

- **Lockout** uses physical locks to secure energy-isolating devices.
- **Tagout** uses warning tags when locks cannot be applied.
- The goal is to ensure equipment stays in a **zero-energy state** until work is complete.

Why LOTO Matters

Unexpected startup or release of stored energy can cause:

- Amputations
- Crushing injuries
- Electrocution
- Burns
- Chemical exposure
- Death

LOTO is one of OSHA's most frequently cited standards because failures are often catastrophic.

Employee Roles in LOTO

Authorized Employees

- Perform the lockout. They apply locks, verify zero energy, and perform the work.

Affected Employees

- Operate or use the equipment being locked out. They must understand LOTO and **never attempt to start or use equipment under lockout.**

Other Employees

- Work in the area. They must recognize locks/tags and avoid interfering with them.
- Most employees fall into the **affected** or **other** category unless trained and designated as authorized.

When LOTO Is Required

LOTO applies when employees are:

- Cleaning, repairing, or maintaining equipment
- Removing or bypassing guards
- Placing any part of their body into a danger zone
- Working on equipment where unexpected startup could occur

LOTO does **not** apply to normal operations unless employees must place themselves in harm's way.

Basic Steps of LOTO

Employees **do not** perform these steps unless authorized, but they must understand the process:

- **Notify affected employees**
- **Shut down the equipment**
- **Isolate all energy sources**
- **Apply locks and tags**
- **Release or block stored energy**
- **Verify zero energy**
- **Perform the work**
- **Remove locks/tags and restore equipment (authorized employees only)**

What Employees Must Do During LOTO

- Respect all locks and tags.
- Never remove someone else's lock or tag.
- Never attempt to start equipment under lockout.
- Stay clear of equipment being serviced.
- Report missing or damaged locks/tags immediately.
- Ask questions if unsure about the status of equipment.

What Employees Must NEVER Do

- Operate equipment with a lock or tag attached.
- Remove, bypass, or tamper with LOTO devices.
- Assume equipment is safe just because it is “off.”
- Perform maintenance unless trained and authorized.

Common LOTO Devices

Employees should recognize:

- Padlocks (color-coded or labeled)
- Lockout hasps
- Valve lockouts
- Circuit breaker lockouts
- Plug lockouts
- Tags with employee name, date, and reason for lockout

Recognition prevents accidental interference.

Real-World Examples

Example 1: Conveyor Belt

- Maintenance worker locks out the conveyor. An operator sees the lock and knows not to restart the system.

Example 2: Electrical Panel

- Electrician applies a lock and tag to a breaker. No one else may energize the circuit.

Example 3: Valve Lockout

- A valve supplying steam is locked out. Employees know the system is under maintenance and must stay clear.

Employee Activity

Use this as a group discussion or quick exercise:

- Identify equipment in your work area that may require LOTO.
- Discuss what could happen if someone removed a lock.
- Review where SDS, procedures, and LOTO devices are stored.
- Walk through the meaning of a tag and what information it provides.

LOTO Awareness Quiz

1. What is the purpose of LOTO?

- A. To warn employees about slippery floors
- B. To prevent unexpected startup or release of energy
- C. To label chemicals
- D. To track maintenance hours

LOTO Awareness Quiz

2. Which employees apply locks and tags?

- A. Authorized employees
- B. Affected employees
- C. Other employees
- D. Anyone who sees a hazard

LOTO Awareness Quiz

3. What should you do if you see a lock or tag on equipment?

A. Remove it if you need to use the machine

B. Ignore it

C. Attempt to start the equipment

D. Leave it alone and stay clear

LOTO Awareness Quiz

4. Which of the following is a type of hazardous energy?

- A. Electrical
- B. Hydraulic
- C. Thermal
- D. All of the above

LOTO Awareness Quiz

5. What should you do if you find a damaged or missing lock/tag?

- A. Fix it yourself
- B. Report it immediately
- C. Remove the equipment from service
- D. Continue working normally