



GOALS

This safety session should teach employees to:

- Know the hazards of unexpected equipment energization.
- Understand that lockout/tagout prevents injuries.

Applicable Regulations: 29 CFR 1910.147



1. Powered machines and equipment are dangerous if they start up unexpectedly.

- The electrical, mechanical, hydraulic, or pneumatic energy that powers equipment or the energy stored in springs, steam, or pressurized air or liquids can be dangerous. Working on equipment you believe has been shut off can cause serious injury if there's an unexpected:
 - Restart of power
 - Release of energy stored in springs, steam, or pressurized air or liquid
 - Movement of parts
- Unexpected energization could cut, hit, crush, or even kill a person who's working on the machine to perform tasks like:
 - Repairs or maintenance
 - Cleaning
 - Checking mechanical or operational problems

2. Take action to prevent accidental energization.

Before working on energized equipment, an authorized employee must:

- Shut it down.
- Isolate or deactivate the energy source.
- Lockout and tagout the energy source.
- Release, drain, disconnect any stored energy.

3. Lockout prevents accidental energization.

- A lock is placed on the machine's energy control switch, circuit breaker, etc.
- The lock places the device in an "off" or safe position so it can't be started up accidentally.

4. The Occupational Safety and Health Administration (OSHA) sets standards for locks and tags.

- These locks and tags must be:
 - Used only for lockout/tagout
 - Durable enough for the job's length and conditions (e.g., temperature, humidity)
 - Standardized so all facility lockout/tagout locks and tags are the same color, shape, and size



- Strong enough to be removed only by heavy force or tools like bolt cutters
- Identified with the name of the employee who installs and removes it
- Tags must also be:
 - Legible, even if they get dirty or damp
- Attached by hand with nylon cable ties or other self-locking means that:
 - Can't be reused
 - Need at least 50 pounds of strength to remove

5. You need special training and authorization to perform lockout/tagout.

- Lockout/tagout is performed only by authorized employees who are trained to:
 - Recognize hazardous energy sources and their type and magnitude of energy.
 - Isolate and control energy to prevent accidents.
 - Verify the means of effective energy control.

6. Affected employees work with powered equipment but aren't authorized to apply or remove locks and tags. They must know:

- Why lockout/tagout is important and how it works
- The requirement to lock/tag out equipment before performing repairs or service
- The importance of not trying to remove or work around locks or tags

7. Other employees aren't involved with lockout/tagout, but should still understand:

- Lockout/tagout's basic procedures
- The importance of not trying to restart locked or tagged equipment



DISCUSSION POINTS:

Use your facility's locks and tags to illustrate this session so participants know what to look for—and stay away from.



CONCLUSION:

- Lockout/tagout is a valuable protection against serious injury.
- Be sure authorized employees have performed lockout/tagout before repairing or servicing powered equipment. And never remove or tamper with locks and tags!



TEST YOUR KNOWLEDGE:

Have your employees take the What Is Lockout/Tagout? quiz. By testing their knowledge, you can judge their ability to understand lockout/tagout and whether they need to review this important topic again soon.



Lockout/Tagout Protects Workers During Equipment Maintenance and Service

Turning off power won't always keep a machine from starting up or moving. To be sure power stays off and prevent accidental start-up that could cut, crush, hit, or electrocute workers:

- **Isolate** or deactivate the energy source.
- **Lockout and tagout** the energy source.
- **Release, drain, disconnect** any stored energy.

Locks and Tags must be:

- **Used only for lockout/tagout**
- **Durable** enough to stand up to heat, cold, humidity, or other conditions until the job is done
- **Standardized** by color, shape, and size throughout the facility
- **Strong** enough to be removed only by heavy force or tools like bolt cutters
- **Identified** with the name of the employee who installs and removes the lock or tag



Tags must also be:

- **Legible.** You have to be able to read them even when they get dirty or damp.
- **Securely hand-attached.** Attach them with single-use nylon cable ties or other self-locking attachments that require at least 50 pounds of strength to remove.