



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.



WHAT IS LOCKOUT/TAGOUT? QUIZ

- 1. Use lockout/tagout on a energized machine before you perform:**
 - a. Any job with the machine
 - b. Repairs or maintenance on the machine
 - c. New employee training on the machine
- 2. Stored energy may be found in machines with:**
 - a. Computer-aided technology
 - b. Lead-based paint
 - c. Springs
- 3. Locks are placed on a machine's:**
 - a. Energy control devices
 - b. Moving parts
 - c. Guards
- 4. Locks and tags should only be used for lockout/tagout purposes.**
 - a. True
 - b. False
- 5. Tagout tags contain:**
 - a. A picture of a lock
 - b. A warning not to turn on or operate the machine
 - c. A listing of the repairs or servicing planned for the machine
- 6. A facility's lockout locks are all supposed to be standardized.**
 - a. True
 - b. False
- 7. Lockout/tagout locks and tags are supposed to be strong enough that removing them requires:**
 - a. Heavy force or tools like bolt cutters
 - b. A mechanical device
 - c. An affected employee
- 8. Authorized employees are the only ones who can perform lockout/tagout.**
 - a. True
 - b. False
- 9. Affected employees are supposed to know:**
 - a. How to remove lockout/tagout locks
 - b. The purpose and importance of lockout/tagout
 - c. The storage location for lockout locks
- 10. Only authorized and affected employees have to know anything about lockout/tagout.**
 - a. True
 - b. False

When you have completed this quiz, turn it in to your supervisor.

Name: _____

Date: _____



ANSWERS TO WHAT IS LOCKOUT/TAGOUT? QUIZ

1. b. Repairs or maintenance on the machine.
2. c. Springs.
3. a. Energy control devices.
4. a. True.
5. b. A warning not to turn on or operate the machine.
6. a. True.
7. a. Heavy force or tools like bolt cutters.
8. a. True.
9. b. The purpose and importance of lockout/tagout.
10. b. False. Other employees should still understand basic lockout/tagout procedures and that they should never try to restart locked or tagged equipment.