


Ohio Bureau of Workers' Compensation

## Lockout/Tagout

### 29 CFR 1910.147



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1

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## What is LOCKOUT?

- The process of blocking the flow of energy from a source to a piece of equipment and keeping it blocked to prevent injury.

2

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## Standard Implementation

Implemented in January 1990 -  
In response to:

122	Fatalities
28,400	Lost Workday Injuries
32,000	Non-Lost Workday Injuries

Caused Annually By Improper Shutdown of Machinery

3

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## So, what's the big deal?

- Huge fatality potential
- Top 10 OSHA citations
  - #6 in 2020 and 2021
    - Procedures
    - Training
    - Inspection
    - Written program
    - Steps of LOTO

\$13K per violation



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4

### Changing light fixture leads to death, \$175K fine

**A** maintenance worker at a New Jersey hospital was killed while changing an overhead light ballast, leading to an OSHA investigation and a \$174,593 penalty.

In June 2016, the Jersey City Medical Center notified OSHA of a worker hospitalization.

The worker was shocked and fell about six feet from a ladder as he changed an overhead ballast in a light fixture. The man, who struck his head, died from his injuries a month later.

**Lack of basic LOTO safeguards**

OSHA cited the hospital with a willful violation because the facility required workers to change light ballasts without proper lockout/tagout (LOTO) practices.

The hospital was also cited with serious violations for failure to:

- ensure de-energized circuits were locked out
- maintain an electrical LOTO program
- ensure only qualified employees worked on live circuits
- provide personal protective equipment, and
- ensure employees did not work on live parts.

"This worker's tragic death was preventable," said Kris Hoffman, OSHA area director. "Jersey City Medical Center did not have basic lockout/tagout safeguards in place to prevent exposure to electrical hazards, and failed to train its maintenance workers on these safeguards."

Go to [safetycompliancealert.com](#) for more on lockout/tagout

5

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## Does it apply to you?




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## Do you have?

- Power?
- Lights?
- Gravity?

7

## When to LOTO?

### Servicing and/or maintenance

- ◆ Remove or bypass a guard or other safety device
- ◆ Required to place any part of his or her body into the point of operation or an associated danger zone exists during a machine operating cycle.

8

## Does not Cover

- Construction, Agriculture, Maritime
- Power Generation, Transmission, Distribution
- LIVE ELECTRICAL WORK
- Oil & Gas Well Drilling and Servicing

9

## Identify Different Personnel

- Authorized
- Affected
- Other



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10

## AUTHORIZED

- A person who locks and tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.

11

## AFFECTED / OTHER

- A person who normally operates machines or equipment which will be locked and tagged out during service or maintenance.
- Affected employees are not responsible to perform the Lockout.

12

## Program – What do I have to do?

1. Written program
2. Specific equipment procedures
3. Training
4. Annual audit

13

## 1. Written Program



- o [Written safety program templates | Bureau of Workers' Compensation \(ohio.gov\)](#)

14

## Lockout Devices

- o Standardize All Locks and Tags
- o Identify The User
- o Must Be Durable
- o Used Only For Lockout



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15

## Protective Materials & Hardware



Photo from BWC employee

16



Photo from istock.com

17

## TAGOUT?

- o Tagout device attached at the same location as the lockout device
- o Employer shall demonstrate that the tagout program will **provide a level of safety equivalent to that obtained by using a lockout** program.

18

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## Shift & Personnel Changes.

- How to transfer locks at the end of shifts.
- How to transfer locks when personnel leave.




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19

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## Develop Procedures for Contractors and LOTO



- Who
- What
- When
- Where
- How

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## Miscellaneous Items in Your Program.

- Procedures for removal of a lock when that person is not present
- Notifying affected employees when locks are to be applied or removed.

21

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## Group Lockout/Tagout

- Every person exposed to the hazard must lockout either on the equipment or on a lockout box



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22

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## 2. Energy Control Procedures For Each Piece Of Equipment

- Scope
- Purpose
- Authorization
- Rules
- Techniques for the control of hazardous energy
- Release from LOTO
- Discipline actions


23

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HAZARDOUS ENERGY SOURCE- ID & LOCATION OF LOCKOUT CONTROL DEVICES FOR EACH

**Electric (480 Volts)**

1. Place the electrical disconnect in the off position.(sa)



2. In the hole on the disconnect, place a lockout lock and tag (sb)



**Try-Out** 1) Pull up on lock to ensure secure, 2) Push start button and ensure machine do not activate

Photo from BWC employee

24

## Sources Of Energy

- Electrical
- Hydraulic
- Pneumatic
- Thermal
- Acid
- Asphyxiate
- Corrosive
- Water
- Chemical
- Mechanical
- Cord & Plug Equip.
- Flammable
- Gravity
- Reactive
- Steam
- Toxic

25

## Steps for LOTO

- **Preparation for Shutdown**
- **Shutdown (turn off) Machine or Equipment**
- **Machine or Equipment Isolation**
- **Apply Lockout Device**
- **Remove Stored Energy**
- **Verify no Energy.**

26

## Release From Lockout

- Work area inspected for tools, parts, equipment components
- Work area checked to ensure employees are in a safe location
- Notify affected employees of removal of LO/TO

27

## 3. Training Affected & Other Employees



- Purpose Of The Energy Control Program
- Types & How to Identify Lockout Devices
- Why They Should Not Tamper With Any Devices Used In Lockout Procedures

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28

## Training Of Authorized Employees

- Types of Energy.
- Magnitude Of Energy Sources
- Locations & How to Lockout Energy Sources
- Types of Devices to Be Used

29

## Retraining

- A change in their job assignments
- A change in machines, equipment or processes that present a new hazard
- A change in the energy control procedures
- Periodic inspection reveals that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

30

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## Training & Communication

Employer shall certify that training has been accomplished and is being kept up to date



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31

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Occupational Safety & Health Administration We Can Help

Home Workers Regulations Enforcement Data & Statistics Training Publications Newsroom Small Business

Anti-Retaliation

## Lockout/Tagout

LOTO HOME

Lockout-Tagout Interactive Training Program

The Directorate of Technical Support and Emergency Management presents the 29 CFR 1910.147, Lockout/Tagout Interactive Training Program. We developed the program jointly with the Directorates of Enforcement Programs, Safety Standards and Guidance, the Office of Training and Education, and the Office of the Solicitor. Compliance officers in Philadelphia, New York, and Atlanta assisted us as well.

Whether you are a recent hire or an experienced employee, this program will expand your knowledge of the Lockout/Tagout (LOTO) standard.

The program has three major components. You can go through these components at your own pace and in any sequence:

**Tutorial:** Explains the standard in a question/answer format.

**Hot topics:** Contains five abstracts with a detailed discussion of major issues. Relevant highlighted sections of the all-inclusive documents are linked here.

**Interactive case studies:** Seven simulated LOTO inspections are presented. You will be making decisions on the application of the LOTO standard, based on information presented on the screen.

Content Reviewed 03/13/2008  
Photo from OSHA.com

32

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## 4. Periodic Inspection (annual)

- o Performed by an authorized employee other than the one(s) utilizing the energy control procedure being inspected.
- o Shall be conducted to correct any deviations or inadequacies identified
- o Shall review Program, Procedures and People

33

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## So if we know this – why are people not locking out?

- o They don't have enough training
- o They don't understand how important it is
- o In a hurry
- o Don't want to bother others
- o No accountability
- o It will only take a second

34

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## Resources

- o OSHA website and e-tool
- o Ohio BWC
  - Updated Written program on website
  - <https://info.bwc.ohio.gov/wps/portal/gov/bwc/for-employers/safety-and-training/safety-video-library/Written-Safety-Program-Templates>
  - Safety Consultants
  - Classes

35

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## Questions




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36