

HAZARD ALERT

CPWR
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

LOCKOUT/TAGOUT



What is Lockout/Tagout?

Lockout/Tagout (or LOTO) makes sure that equipment does not start up or move without warning during maintenance and service work.

- ▶ A lockout device is a key or combination lock that prevents equipment from turning on or moving unexpectedly.
- ▶ A tagout device is a tag securely attached to the equipment using, for example, a self-locking nylon cable. The tags say “Do not start” or “Do not operate.” Tags should be used along with a lockout device unless the equipment cannot be locked out.



A machine being locked and tagged out

The person who puts the lock or tag on the equipment is the only one who can take it off.

Why is LOTO important?

When LOTO procedures are not followed, workers that clean, service, repair, install, set up, erect, adjust, inspect, un-jam, test, or dismantle equipment are at risk for serious injuries or death from:

- ▶ **Electrocution,**
- ▶ **Burns,**
- ▶ **Being crushed, or**
- ▶ **Amputation (e.g., loss of a finger).**

For example, a 30-year-old elevator repairman was crushed and died while working in an elevator shaft because the power to the elevator had not been locked out.¹

Following LOTO procedures prevents roughly 120 fatal accidents and 50,000 injuries each year.²

¹Mechanic crushed to death by elevator: <http://nypost.com/2015/01/09/mechanic-crushed-to-death-by-elevator/>

²OSHA Fact Sheet: Lockout/Tagout: https://www.osha.gov/OshDoc/data_General_Facts/factsheet-lockout-tagout.pdf

If you think you are in danger:
Contact your supervisor. Contact your union.
Call OSHA 1-800-321-6742

Find out more about construction hazards.
Get copies of this Hazard Alert card or cards on other topics at
<http://www.cpwr.com/publications/hazard-alert-cards>
or by calling 301-578-8500

Before Work Begins:



Examples of LOTO devices

³OSHA requires employers to implement programs to protect workers, but the detailed OSHA LOTO Standard does not apply to construction. However, it includes important steps that employers in construction should take, including having a written LOTO program: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9804

1 Your employer should...

- ▶ Explain the LOTO procedures. Every employer should have a LOTO program.³
- ▶ Show you how to shut down and restart the equipment.
- ▶ Provide training on how to use LOTO devices.

2 Recognize the hazard...

Energy comes in many forms, and almost all types can be found on a construction worksite. LOTO prevents the unexpected release of energy. Identify all of the energy sources for the equipment you are working on or around.

Energy Types:	Examples:
Chemical	Gasoline-powered heavy equipment, propane, wet and dry cell batteries
Electrical	Electrical circuits, temporary power
Gravitational	Objects supported by cranes and hoists
Hydraulic	Hoses on excavators, backhoes, rough terrain forklifts
Mechanical	Tools with blades and moving parts
Pneumatic	Compressed air-powered rammers, rock drills, jackhammers and nailers

Oregon OSHA Guide to Controlling Hazardous Energy: <http://osha.oregon.gov/OSHA/Pubs/3326.pdf>

3 Follow procedures...

ALWAYS:

- ▶ Disconnect equipment from energy sources.
- ▶ Prevent equipment parts or materials from moving due to gravity.
- ▶ Lock out and/or tag out equipment that needs to be serviced.
- ▶ Test to make sure the energy is off.

- ▶ Tell other employees when you are about to shut down or restart a machine.

NEVER:

- ▶ Perform maintenance or service on equipment or electrical circuits unless they have been locked out and/or tagged out.

Learn more about how to work safely.

Scan this QR code to learn about OSHA's LOTO requirements:



Scan this QR code to access life-saving LOTO procedures:

