Department of Consumer and Business Services

# The Control of Hazardous Energy (Lockout/Tagout)

OAR 437 • Division 2/J

# **General Industry Requirements**

OSHA's standard for **The Control of Hazardous Energy (Lockout and Tagout)**, requires that hazardous energy be controlled during service and maintenance activities. These activities include the installation, setup, adjustment, inspection, modification, and routine maintenance or servicing of equipment. Hazardous energy sources include electrical, mechanical, hydraulic, pneumatic, chemical, gravity, and thermal. Equipment must be isolated from its energy sources and rendered inoperative to prevent injury or death from unanticipated, uncontrolled hazardous energy. (Control-circuit type devices are not energy-isolation devices.)

Cord-and-plug-connected equipment is not covered under the standard if it's unplugged, the plug is under the exclusive control of the operator, and electricity is the only form of hazardous energy.

Employers must develop and enforce an energy control program that consists of energy-control procedures, employee training, and periodic inspections. Requirements include:

• Use individual lockout devices for **equipment that can be locked out**; that uses a positive means such as a lock, either key or combination type, to hold an energy-isolating device in a safe position and prevent the energizing of a machine or equipment.  If an energy isolating device is not capable of being locked out, provide tagout devices instead of lockout devices only if the employer can demonstrate that the use of a tagout program provides full employee protection equivalent to a lockout program. Use additional safety measures as part of the demonstration to reduce the likelihood of inadvertent energization.

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- Provide additional safety measures such as the removing of an electrical circuit.
- Provide durable and standardized lockout and tagout devices and hardware. Devices must identify who applied them and may not be used for other purposes.
- Establish written procedures that permit only the authorized employee who applied a lockout or tagout device to remove it. Procedures must include provisions for device removal when the employee is not available.
- Inspect energy-control procedures at least annually, and certify this in writing.

# Lockout and tagout devices

Lockout devices hold energy-isolation devices in an off position. They provide protection by preventing equipment from energizing because they are restraints that no one but the user can remove without a key or combination, unless the lockout device is destroyed through means such as a bolt cutter.



Salem Central Office 350 Winter St. NE Salem, OR 97301-3882 Phone: 503-378-3272 Toll-free: 800-922-2689 Fax: 503-947-7461 Tagout devices are prominent warning devices securely fastened to energy-isolation devices to warn employees not to re-energize equipment being serviced. Tagout devices are easier to remove, and provide employees with less protection than lockout devices.

Lockout devices and tagout devices must only be used for controlling energy — not for other purposes. They must be durable, standardized, substantial, and singularly identifiable.

## Training

The employer must provide training to ensure that the purpose and function of the energy control program are understood by employees. Also, they must learn the skills required for the safe application, usage, and removal of the energy controls.

Training requirements depend on whether employees service equipment or just work near it while it is being serviced. **Authorized employees** service equipment; **affected employees** work in areas where the equipment is serviced.

Authorized employees must receive training in the recognition of applicable hazardous energy sources; the type and magnitude of the energy available in the workplace; and the methods and means necessary for energy isolation and control.

Affected employees must be instructed in the purpose and use of the energy control procedure.

All other employees whose work operations are or may be in an area where energy-control procedures may be used, must be instructed about the procedure and the prohibition relating to attempts to restart or re-energize machines or equipment locked out or tagged out.



# Energy-control procedures

Employers must document procedures for the control of hazardous energy sources for use by authorized employees who lockout or tagout equipment to perform service and maintenance. The lockout procedures for equipment with one or more hazardous energy sources must specifically include:

- The intended use of the procedure.
- Steps for shutting down, isolating, blocking, and securing equipment.
- Steps for the placement, removal, and transfer of lockout devices.
- Equipment-testing requirements to verify the effectiveness of the energy-control measures.

Employers do not need to document the required energycontrol procedure when all of the following conditions exist and no accidents involving the unexpected activation or re-energization of equipment have occurred:

- A single source of energy can be readily identified and isolated; locking out the energy source completely de-energizes and deactivates equipment.
- The lockout device is under the exclusive control of the authorized employee.



The Technical Section of Oregon OSHA produced this fact sheet to highlight health and safety programs and rules. The information is intended to explain the rules and provide best practices to employers.

 No potential for stored or residual energy or re-accumulation of stored energy exists that could harm employees after shutdown.

When re-energization is required as part of a service activity, temporary removal of lockout or tagout devices is allowed. This temporary exemption applies in limited situations and only for the time required to perform the task.

#### **Requirements for controlling hazardous energy:**

- Notify all affected workers
- Identify energy sources and energy-isolating devices
- De-energize equipment
- Secure energy-isolating devices in a safe position
- Dissipate or restrain potential energy that cannot be isolated
- Verify equipment isolation by starting or testing

When multiple people are involved in service or maintenance, group lockout is permitted. It is also permissible to transfer lockout or tagout devices during shift changes when written procedures are followed.

#### Requirements for returning equipment to service:

- Inform co-workers that lockout or tagout devices will soon be removed
- Remove tools and replace all equipment components
- Ensure all workers are clear of the equipment
- Verify power controls are off or in a neutral position

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 Remove the lockout or tagout device and re-energize equipment

# Periodic inspection

At least annually, employers must inspect and certify all energy-control procedures. Authorized employees other than those using the procedures being inspected must perform the inspections. The inspection certification must identify the equipment, inspection date, person performing the inspection, and all employees included in the inspection. Inspections must verify all of the following:

- Lockout and tagout procedures are adequate.
- Authorized and affected employees know their procedure responsibilities.
- Procedures are being followed.

### Resources

- Division 2/J, General Environmental Controls
- Division 2/S, Electrical
- Oregon OSHA's Guide to Controlling
  Hazardous Energy
- Federal OSHA's Control of Hazardous Energy



# Workers

Your employer cannot retaliate against you for reporting a workplace health or safety concern or violation. For more information about your rights, visit the Oregon OSHA website.





Visit Oregon OSHA