

Lockout/Tagout

- **Training:**
- 29 CFR-1910.148
- Lockout Tagout Standard
- States employer must provide training on lockout tagout.



Lockout/Tagout System

- Helps safeguard employees from the unexpected startup of machinery, equipment or release of hazardous energy while performing service or maintenance activities.

Who can perform Lockout or Tagout?

- Authorized employees who are performing the servicing or maintenance.
- An authorized employee is a person with documented task training who locks out and tags out equipment in order to perform servicing on that equipment.

Definitions-

- **Affected Employee:**
- Job requires them to operate, or use equipment on which servicing, or maintenance is being performed under Lockout Tagout.
- Job requires them to be in an area in which servicing is being performed.

Energized-

- Connected to an energy source or containing residual or stored energy.
- **Energy Source**-Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Energy Isolating device-

- A mechanical device that physically prevents the transmission or release of energy:
- A manually operated circuit breaker
- A disconnect switch
- A line valve
- A block

Not Energy Isolating devices-

- Push buttons
- Selector switches
- other control circuit type devices

Job Procedure-

- A written procedure identifying the job to be performed and the steps necessary to perform it.
- **Lead Authorized Person**-Person in charge of the work being performed by a group of personnel.

Lockout-

- The placement of a lockout device on an energy isolating device, in accordance with an established procedure.
- **Lockout device-** A device that utilizes a positive physical means to hold an energy isolating device in the safe position.
- Included are blind flanges and bolted slip blinds.

Tag-

- A prominent warning device and a means of attachment which can be securely fastened to an energy isolating device.
- **A tag shall always require a lockout device.**

Tryout-

- The physical operation of all **control devices** after the lockout/tagout has been performed.
- **Ensures:**
- Energy sources have been isolated
- Stored energy released
- Electrical circuits- includes checking each phase to ground & phase to phase.

Authorized Lockout/Tagout Devices

- **Lockout devices:**
- Company issued non series padlock is used for **personnel** lockout and not for any other purpose.

Lockout devices-

- Specialized breaker and plug lockouts, capable of being locked by a padlock and red in color are authorized. The devices shall be used for no other purpose.

Lockout devices-

- **Chains** are authorized for:
- Securing valve handwheels
- Other special purposes
- Chain shall be fastened so the energy control device can not be operated
- A lock shall be used to secure the chain

Lockout devices-

- **Specialized** ball valve/gate are authorized.
- Device shall be capable of being locked by a padlock and **red** in color.
- Devices shall be used for no other purpose.

Lockout devices-

- Blind flanges and bolted slip blinds are authorized for use.
- Provisions shall be included for attachment of a lock and tag to the blind.

Lockout devices-

- Metal gang lockouts, & lock boxes are authorized for use.
- Be capable of being locked by a padlock and **red** in color.
- Used for no other purpose.

Tagout devices-

- **Are not authorized for use on their own. They must be used in conjunction with a lockout device.**

Tagout Devices-

- **Danger Tag**-red black and white in color.
- Approximately 6”x3 1/2”
- States **DANGER-Do Not Operate.**
- Space for-Name or Employee number, Dept....., date, reason for tagout.

Individual Lockout

- **The authorized employee :**
- Informs appropriate group
- obtains appropriate job procedure
- shuts down following procedure
- gang lockout device & danger tag attached as isolation device positioned
- each employee attaches own lockout device

Individual Lockout (cont.)

- When all energy isolation device(s) have been positioned & locked/tagged, all control device(s) shall be tested in each mode of operation.
- Electrical circuits are to be tested by a person trained in the use of electrical test equipment.
- The control device(s) shall then be placed in the off position.

Multi-Person Lockouts

- Each authorized employee working on equipment shall lock it out.
- Authorized employee applying lockout to final position shall obtain a second multiple lockout and attach it to the final position, placing his tag & lock in the first position of the second device.
- Lockout removal is the same as for individual lockouts.

Gang Lockouts

- Lead authorized employee shall perform the lockout .
- All keys used for the gang lockout shall be placed in a lock box.
- Lead authorized employee shall attach his lockout device to the lock box.
- Each authorized employee shall verify the lockout, attach own lock/tag to lock box.

Gang Lockouts-cont.

- As each authorized employee completes work, he shall remove his lockout device from the lock box.
- Lead authorized employee will take custody of all keys in the lock box, inform operations work is complete & remove lockout devices.

Major Shutdowns

- **Additional requirements:** authorized person shall position all energy control devices, install lockout/tagout devices, place all keys in lock box, apply a lockout device to the lock box.
- Authorized rep. from each crew working on equip. shall attach lockout device to lockbox.

Major Shutdowns-cont.

- When work is completed, authorized person shall perform inspection of affected equipment.
- When satisfied, unlock the lock box, remove all keys, remove all lockout devices.

Lock/Tag Removal By Other Person

- Must be verified, employee is not on premises, unable to contact employee or unable to return to facility- **Then:**
- A complete inspection must be performed by shift supervisory personnel