

LOCKOUT – TAGOUT AFFECTED EMPLOYEES

4th Qtr 2016

Control of Hazardous Energy

2

29 CFR 1910.147

The standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment , or release of stored energy could cause injury to employees.

Provisions Of The Standard

Requires employers to establish procedures for isolating machines or equipment from their source of energy and affixing appropriate locks or tags to energy isolating devices

Employer Responsibilities

4

- ❑ Establish energy control program
- ❑ Establish energy control procedures for machines and equipment
- ❑ Provide employee training
- ❑ Conduct periodic inspections of the energy control program

Application Of The Standard

- An employee is required to remove or bypass a guard or other safety device
- An employee is required to place any part of their body in contact with the point of operation of the operational machine or piece of equipment
- An employee is required to place any part of their body into a danger zone associated with a machine operating cycle

Minor Servicing Tasks

Employees performing minor tool changes and adjustments that are *routine, repetitive, and integral* to the use of the equipment and that occur during normal operations are not covered by the lockout/tagout standard, provided the work is performed using alternative measures that provide effective protection.

Definitions

- **Authorized employee:** A person who locks out or tags out machines or equipment in order to perform servicing or maintenance
- **Affected employee:** A person whose job requires him to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout

Definitions

- **Energy isolating device:** The mechanism that prevents the transmission or release of energy and to which locks or tags are attached
- Includes manually operated circuit breakers, disconnect switches, line valves, blocks, and others

Definitions

- Lockout: The placement of a lockout device on an energy isolating device to ensure that the equipment being controlled cannot be operated until the lockout device is removed
- Tagout: The placement of a tagout device on an energy isolating device to indicate the equipment being controlled may not be operated until the tagout device is removed

LOTO

- Types of energy may include:
 - ▣ Electrical
 - ▣ Radiation
 - ▣ Thermal
 - ▣ Pneumatic
 - ▣ Hydraulic
 - ▣ Chemical
 - ▣ Stored Energy

De-energizing Equipment

- ❑ Shut down the machine or equipment
- ❑ Isolate the machine or equipment from the energy sources
- ❑ Apply the lockout or tagout device(s) to the energy isolating device(s)
- ❑ Safely release all potentially hazardous stored or residual energy
- ❑ Verify the isolation of the machine or equipment prior to the start of servicing work

Re-energizing Equipment

- Ensure that machine or equipment components are operationally intact
- Ensure that all employees are safely positioned or removed from equipment
- Ensure that lockout or tagout devices are removed from each energy isolation device by the employ who applied the device

Tag Requirements

13

- Tags must also include a legend such as:
 - ▣ Do not start
 - ▣ Do not open
 - ▣ Do not close
 - ▣ Do not energize
 - ▣ Do not operate

LOTO Procedures

- Basic lockout
 - An individual places their lock on the energy isolation device
- Group lockout
 - Locks are placed on the energy isolating devices, the keys to those locks are placed in a lock box, and each individual working on a piece of equipment are required to place their lock on the lockbox