Lockout/tagout Authorized employees

Types of employees

Employers authorize certain employees to bypass guards and enter the machinery's point of operation to perform tasks.

1a

Types of employees

Authorized employee:

A person who locks out or tags out machines to perform servicing or maintenance on the machines.

1b

Types of employees

Affected employee:

- An employee responsible for operating the equipment
- An employee who works in the area

1c

Types of employees

Authorized employees must:

- Understand role in controlling energy
- Ensure that affected employees are informed

1d

Types of employees

Authorized employees must:

- Understand energy control program
- Be able to recognize:
  - Hazardous energy sources
  - Type and magnitude of energy available
  - Methods and mean to isolate and control energy

1e

Lockout definition

Process of preventing the flow of energy

- Consists of installing a lock, block, or chain
- Requires an authorized employee to apply/remove lock

2a

Tagout definition

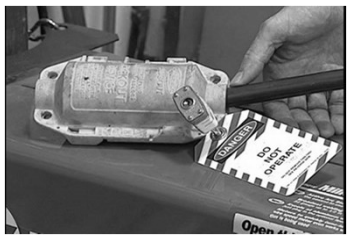
Process of placing tag on power source

- Tag acts as a warning
- Tag must clearly state "Do not operate"
- Tag used when machine won't accept lock
- Tag must be applied/removed by an authorized employee

2b

Hazardous energy sources

- Electrical
- Mechanical
- Pneumatic
- Hydraulic



3a

Hazardous energy sources

- Chemical
- Thermal
- Water under pressure
- Gravity
- Potential energy

3b

Energy control program

- Energy control procedures
- Employee training
- Periodic inspections

4a

Energy control program

Energy control procedure includes:

- Intended use of the procedure
- Specific steps to control hazardous energy
- Specific requirements for verification

4b

Energy control program

- Each type of machine needs its own LOTO procedure
- Lockout must be used unless device cannot be locked out
- Tagout must be used when unable to lockout

4c

Work activities

- Constructing
- Installing
- Setting up
- Adjusting
- Inspecting
- Modifying
- Repairing
- Cleaning equipment

5a

Prepare for shutdown

Procedures for controlling energy:

- Prepare for shutdown
- Shutdown
- Isolate equipment from energy
- Apply lockout or tagout device
- Release of stored energy
- Verify isolation

6a

Prepare for shutdown

Step one:

- Know the type and magnitude of energy
- Know the hazards of energy
- Know the methods or means to control it

6b

Shutdown

Step two:

- Turn off equipment using normal controls
- Use orderly shutdown

7a

Isolate equipment

Step three:

- Isolate equipment from energy sources
- Secure lock to energy isolating device

8a

Apply devices

Step four:

- Notify affected employees
- Attach lockout/tagout devices

9a

Apply devices

- Only authorized employee can attach or remove lockout and tagout devices
- Devices must be durable
- Devices must identify person who applied them

9b

Release stored energy

Step five:

- Relieve stored energy
- Verify machine isolation from energy

10a

Release stored energy

Steps to release stored energy:

- Relieve pressure in compressed air line
- Insert a block

10b

Verify isolation

Step six:

- Verify machine is deenergized
- Verify machine is isolated

11a

Lockout devices

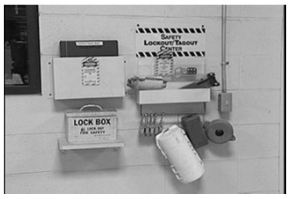
- Authorized employee must have own device
- Device must be used to control energy only

12a

Lockout devices

Devices could be:

- Locks
- Tags
- Chains
- Wedges
- Key blocks
- Adapter pins
- Self-locking fasteners



12b

Lockout devices

Devices must have the following qualities:

- Be durable
- Be standardized in color, shape, or size
- Be substantial enough to prevent removal

12c

Tags

Tags must have the following qualities:

- Be durable
- Be standardized in print and format
- Be substantial enough to prevent removal
- Be one-piece, environmental tolerant
- Include warning statements

13a

Group lockouts

- Each authorized employee must affix a personal lockout or tagout device
- Each authorized employee must remove the device when works stops

14a

Shift changes

- Lockout/tagout protection must be continuous
- Lockout/tagout protection must have an orderly transfer between employees

15a

Device removal

- Lockout or tagout device must be removed by the authorized employee who applied it
- Device may be removed under direction of employer if authorized employee unavailable

16a

Device removal

Steps employers must take before removing a lock or tag:

- Verify that authorized employee who applied lock is not at the facility
- Take all reasonable efforts to contact the authorized employee

16b

Restoring energy

- Inspect work area
- Ensure employees are safe
- Notify affected employees

17a