

Section E Support Services

EDBA -R Lockout/Tagout Program Procedures

I. PURPOSE

The purpose of the Lockout/Tagout Procedure is to protect employees from personal injury, to prevent an environmental release, and to prevent damage to equipment due to the unexpected energization or start-up of the equipment, or the release of stored energy while maintenance, service or modification of equipment is being performed. Potential sources of energy are:

- Electrical hazards
- Mechanical hazards
- Chemical hazards
- Stored energy hazards
- Hydraulic hazards
- Pneumatic hazards
- Thermal hazards

II. RESPONSIBILITIES

Employees and Contractors: All employees and contractors must abide by the Lockout/Tagout (LOTO) procedures. If questions or concerns arise, they must ask their supervisor for clarification.

Safety Committee: Coordinates annual training of all employees in LOTO, ensures the general LOTO procedure is current, and ensures the LOTO database is current.

Maintenance Director: This person ensures LOTO checklists are developed for new equipment and current LOTO checklists are revised to reflect the addition of or revision to equipment.

Director/Instructor: This person ensures that all of the employees and students in their area of accountability are adequately trained in LOTO procedures.

III. LOCKBOXES

Multiple and Single Energy Source Lockouts shall always utilize a lockbox.

Anyone working on equipment must have his or her employee or contractor lock and tag on the lockbox.

At least one Maintenance lock and tag must always secure lockboxes.

Exception for the use of a lockbox for single energy sources are:

- Single corded appliances included but not limited to: saw, drill press, recycler, welder, mills, grinders (anything that can be unplugged).

However:

- These single energy sources must be locked out and the work must be documented on the corresponding checklist when applicable.
- Each person working on the above equipment must secure the energy source with his or her employee lock and tag.

IV. LOCKOUT PROCEDURE STEPS:

The person locking the equipment shall check the equipment to be serviced to ensure all energy sources and proper steps for shutting down: isolating, locking, tagging and trying the equipment have been identified.

The person(s) needing the lockout must review and be in agreement that the lockout will be safe. Either can insist that further steps be taken to improve a lockout.

1. Shut down equipment.
2. Isolate equipment from all energy sources.
3. Apply identifiable field locks and, if necessary, identifiable field tags to the isolated equipment to lock in place. Note that field locks are required where ever the design permits to aid in reducing errors during the commissioning phase. Identifiable definition: initial, date, and lockbox number on tags (reference Identifiable LOTO OSHA 1910.147 (c)(5)(ii)(D)).
4. Use a lock tree when there is more than one lock. Do not put a lock on a lock already on a device.
5. Release potentially hazardous stored or residual energy from the equipment.
6. Complete the top portion of the checklist.
7. Place all field keys to the locked out equipment in a designated lockbox.
8. Apply personal lock and tag on the designated lockbox.
9. Try the equipment, in the presence of the Maintenance Director, ensuring that no personnel are exposed during the trying of the equipment.
10. Return operating controls to "neutral" or "off" position after the try.

Maintenance Director Steps:

1. The person(s) needing the lockout shall notify maintenance that certain equipment will need to be locked out and serviced.
2. If blanks are needed, insert blanks when required. All blanks need to be locked and tagged.
3. Must verify that all the steps of the lockout have been appropriately completed.
4. Must initial the bottom portion of the lockout, and then indicate date, time, and brief description of work to be done. Initialing the form indicates acceptance of the lockout.
5. Must attach personal lock and tag to the applicable lockbox or device.
6. Service, repair, or modify the equipment. Indicate, on the checklist, the status of the task. When the task is complete, indicate with details on the lockout sheet.

LOTO Procedures Involving More Than One Employee

If more than one Employee is assigned to a task requiring a lock and tag out, each must also place his or her own lock and tag on the energy isolating device(s).

Changing States After a Lockout is In Place

This could be as simple as a change to opening a drain valve to assure a line is clear prior to line breaking; or to as complex as removing a valve that has been locked.

The primary control for assuring changes are properly managed is administrative. The people doing the work and testing the system need to understand their responsibilities, be trained on these responsibilities, and take appropriate steps in assuring any changes that take place after the lockout are completed, reviewed, logged and locked as appropriate. Interaction is a must as these activities cannot conclude without this.

- Maintenance is responsible for the lockout. For example, if a particular valve needs to be opened or closed, get a qualified person to modify the current lockout to reflect the change. Make note of any change.

V. REACTIVATION

Maintenance Director Steps:

1. Complete the service, maintenance, or modification of the equipment.
2. Prior to removing locks and tags from the lockbox, inspect the area for housekeeping (cleanliness) and ensure that machine or equipment components are operationally intact. Some items that should be checked are:
 - Installation of all guards
 - Proper covers on all exposed electrical wiring
 - Connection and/or closure of all piping systems
3. Remove tools. Check the work area to ensure that all employees have been safely positioned away from the equipment.
4. Inform Maintenance or Instructor that the work has been completed. Indicate that the work status is complete. Remove employee lock and tag from the lockbox.

Operator Steps:

1. Make contact with the Maintenance Director to ensure all work is done.
2. Remove all field locks and tags from the equipment and make a final work area check for personnel.
3. Check valve alignment, open end piping and drains prior to system start up.
4. Inform all affected personnel that locks and tags have been removed and the equipment is to be restarted.
5. Make equipment ready to start upon removal of locks.
6. If the equipment or system cannot be started or tried immediately, leave the power locked out along with any other appropriate devices that will make the system safe. Fill out a separate lockout sheet (blank or equipment specific) with the detailed

information and state in the comment section, "system not verified or tested" or any other clarifying comments. Leave the sheet and keys in the lockout box and treat as a continuing lockout box and treat as a continuing lockout until the system can be verified.

VI. LONG-TERM LOCKOUT

Long-term projects are those projects that last greater than two (2) days, during normal operation and shutdown.

Procedure:

1. Indicate on the checklist that this is either a long-term or shutdown project.
2. After the equipment has been locked and tagged, the lockboxes will be transferred and secured by the employee responsible for the lockout (Maintenance Director) at all times.
3. Maintenance personnel working on the equipment must place their employee lock and tag on the lockbox.
4. When the work has been completed, the Maintenance Director will ensure that the work area has been inspected for housekeeping (cleanliness) and will ensure that the machine or equipment components are operationally intact.

VII. EMERGENCY LOCK REMOVAL

Field Locks

If a field lock needs to be removed, the person responsible for the lock or locks is the person who was last assigned to the lockout.

Employee/Instructor/Maintenance Locks

1. If an employee leaves work without removing his/her employee lock and it is necessary to remove the lock, the employee's supervisor must verify that the employee is not at the facility.
2. A reasonable effort must be made to contact the employee.
3. If the employee cannot be located, then the Safety Lock Removal Request Form must be completed before any action can be taken to remove that lock.
4. If the employee is contacted but cannot return to work to remove his/her employee lock, he/she must be informed that their lockout devices are being removed.

Removal of the Lock

1. Only the Maintenance Director or designee may authorize a lock removal. If either cannot be contacted, the appropriate chain of command will be followed until someone is contacted.
2. The employee's supervisor must ensure that the employee is presented with the removed employee lock and tag upon his/her return to work and is informed of the reasons for the emergency removal.

3. The Safety Lock Removal Request Form must be fully completed, signed, and returned to the Maintenance Director or designee for LOTO record keeping purposes.

VIII. INDIVIDUAL EQUIPMENT CHECKLISTS

Location

Individual equipment LOTO checklists and blank checklists shall be maintained in the Maintenance Director's office.

Purpose of Checklists

Individual equipment checklists are designed for cases such as complete dismantling.

No Checklist Exists

If no pre-made checklist exists, the operator and Maintenance Director will jointly decide the steps for adequate lockout and document on a blank checklist.

Checklist Completion

Operators must complete all applicable fields on the top portion of the checklist. Any step not applicable to the lockout shall be crossed out and N/A written.

Maintenance Director must complete all applicable fields on the bottom portion of the checklist and by doing so verify their acceptance of the lockout procedure.

Checklist Usage

The checklist must be used in coordination with a lockbox. Checklists shall be maintained in the lockboxes until the lockout on that equipment has been completed and all locks and tags are removed.

The completed checklist shall be forwarded to the Safety Liaison who shall maintain completed checklists for a minimum of one year.

IX. TRAINING AND ANNUAL INSPECTION

Lockout/Tagout Specific Training

The Maintenance Director will coordinate training on an annual basis. Names of trained personnel, training dates and tests will be maintained in the main office.

LOTO Awareness Training

The Maintenance Director will coordinate this training for all other employees. This training will consist of basic knowledge of Lockout/Tagout and prohibition of attempts to restart locked out equipment.

Retraining

The Maintenance Director will give retraining whenever there is a change in job assignment, when it has been identified that an employee needs retraining, or when there is a change in a checklist for equipment, machines or processes.

Periodic Inspection

A periodic inspection (at least annually) shall include a review, between the Maintenance Director and each employee, of the employee's responsibilities under the energy control procedure being inspected.

The LOTO Procedure shall be reviewed at least annually to ensure that the procedure and the requirements of 29 CFR 1910.147 are being followed.

X. APPROVALS

Director: _____

Date: _____

Maintenance Director: _____

Date: _____

LEGAL REFERENCES:

29 CFR 1910.147 The Control of Hazardous Energy (Lockout/Tagout) OSHA

Cross Reference: EDDBA - Lockout/Tagout Policy

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