Company Name:
Written Program ID: 24
Date:

Control of Hazardous Energy (Lockout/Tagout) Program

Purpose

The purpose of this program is to protect all (CLIENT NAME, CITY, STATE) employees from being injured by unexpected start up (or release of stored energy) of equipment during servicing and repair. This program has been developed to comply with OSHA 29 CFR 1910.147 - The Control of Hazardous Energy Sources (lockout/tagout).

Scope

This program applies to all employees who work in, or may enter an area where servicing and maintenance of equipment takes place. Specifically:

- Affected Employees: whose job requires them to operate equipment that may be locked out for service or repair, or employees who work in an area where service and repair takes place.
- Authorized Employees: whose job requires them to perform service or repair to equipment.
- Other Employees: whose work is in, or who may enter, an area of the facility where lockout is, or could take place at some point in time.

This program applies whenever a guard or other safety device must be removed to perform service or repair to energized equipment, thereby exposing an employee to injury in the event of unexpected start up.

This program does not apply to:

1. Work on plug in equipment, where pulling the plug eliminates all sources of energy, and the employee doing the repair has total control of the plug.
2. Minor adjustments to equipment during production as long as they are: integral to the operation, routine, and other precautions are taken to assure the operator will not be injured. Removal of a guard and placement of any part of the operator's body into the point of the machine where work is performed on the product is NOT considered "minor," and lockout must be used. Routine set up and clearing jams is not considered to be taking place during production.

Responsibilities

The Maintenance Manager is the designated Lockout/Tagout Program Coordinator, and is responsible for the following:

1. Develop and administer the written Control of Hazardous Energy Program specific to the facility.
2. Assure training for all covered employees, and maintain documentation of the training sessions.
3. Assure that periodic inspections of the lockout/tagout procedures are performed by authorized employees, to assure that written procedures are followed. The Program Coordinator should maintain inspection records.

Area Supervisors are responsible for the following:

1. Inform machine operators and other affected employees in the area whenever lockout is to take place, including the piece of equipment to be serviced, when it will be down, and when it is safe to resume operation.
2. Assure that all employees in the area do not try to operate the equipment while it is locked out.
3. Assure that the authorized person performing the repair is using lockout according to this program.
4. Participate in the periodic inspections performed in their area.
5. Assure that contractors are notified on how to lockout equipment in their area.

6. Participate in the Failure to Remove a Lock procedure.
7. Assure the procedure for shift change on equipment in their department is followed.

Maintenance Supervisors are responsible for the following:

1. Develop written procedures for all pieces of equipment that have more than one source of energy. Potential sources include: Electric, Chemical, Compressed Air, Hydraulic, Pneumatic, or Thermal (heat).
2. Maintain an adequate supply of locks, tags, multiple lock adapters (hasps), and cable ties to secure tagout, that meet the requirements identified in section IV, Energy Control, for use by employees on multiple source equipment.
3. Assure that only employees trained as "Authorized" are allowed to perform repair on equipment.
4. Participate in the removal of someone else's lock under the specified procedure.
5. Assure that the procedure for shift change is followed.
6. Attend all periodic inspections performed by the program coordinator.

Employees have the following responsibilities:

1. All Authorized Employees must follow the procedures in this program.
2. Actively participate in their assigned training session, and adhere to the information provided therein.

Purchasing agents for the facility are responsible for:

1. Buying locks and tags that meet the specifications outlined in the Program.
2. Assuring that all new equipment purchased for the facility is capable of being locked out.

Energy Control

Lockout and Tagout devices must meet the following specifications:

1. All lockout locks are easily identified as (enter here) because they are all (enter here) in color. (For example: All lockout locks are easily identified as a maintenance department issue because they are all silver in color.) They are keyed differently, with each Authorized Employee having sole ownership of the key(s). No one in the facility is allowed to maintain a "master key." Locks are strong enough that, without the key, they must be cut off to be removed. Combination locks will not be used. Lockout locks will not be used for anything other than safety lockout.
2. Whenever it is possible to lock out an energy source, locks and tags will be used. In the event that the equipment will not accept a lock, a tagout may be used. Tags must be able to withstand the environment (for example chemical exposure) in which they are used. (Equipment that can only be tagged out will also have a written procedure on how to properly secure the equipment.)
3. The writing on all tags will be standardized, and provide adequate warning. Tags also have space available for the employee to sign their name. New equipment brought into the facility will be capable of being locked out. Because tagout may not afford the same protection as physical lockout, locks must be used whenever possible.
4. Tags must be attached on or near the energy cut off device with a non-reusable, self-locking mechanism that can withstand 50 pounds of force. Then, must be cut to be removed. This facility will use Nylon Cable Ties to meet these requirements.
5. Both locks and tags must identify the owner. This facility will meet this requirement by using signed tags in conjunction with the locks.

Basic Lockout Procedure: for equipment with only one energy source.

1. Notify the area Supervisor and/or affected employees what equipment is being taken out of service, and when.
2. Turn the power off by the normal stopping procedure.
3. Turn the main disconnect to the off or neutral position.
4. Apply the safety lock and tag to the disconnect switch, at the point where it is not possible for anyone to turn it back on without removing the lock. If more than one person is working on the same piece of equipment, use a multiple lock hasp, as all exposed people must attach their own lock/tag to the disconnect switch. Any stored energy must be relieved or restrained with a blocking wedge. (Examples of stored energy include: springs, elevated machine members, hydraulic, gas, steam, air pressure, etc.)
5. Make sure no one is exposed to the equipment, and try to run it. After this test, be sure to put the

start button back into the off position.

6. Following completion of the repairs, replace all guards, assure the equipment is safe to operate, remove the lock/tag, and notify the affected employees that the equipment is safe to operate.

Complex Lockout Procedures: for equipment with more than one source of energy.

The same process as outlined above is to be followed. However, each piece of complex machinery must have a specific written procedure that contains the following information:

1. Statement of the intended use of the procedure.
2. Specific steps for shutting down, isolating, blocking, and securing equipment to control the energy.
3. Specific steps for the placement of lock/tag devices.
4. Specific steps for testing to assure the equipment is disabled prior to starting the work.
5. Removal of lock/tag devices following job completion. (Often, following the steps of the lockout in reverse order is sufficient.)

Written procedures will be kept in the Maintenance Manager's office and the Human Resources Manager's office.

Testing and Repositioning equipment during the repair process: In order to re-energize equipment prior to the jobs completion, the authorized employee will:

1. Remove unnecessary tools from inside the equipment.
2. Assure that no employees are in or around the equipment.
3. Remove lock/tag.
4. After testing/repositioning, return main disconnect to the off position and reapply lock/tag.

Group Lockout Procedures: When more that one employee is needed to perform work on a project, each employee who is exposed to injury must lock out each energy source.

For major projects involving many employees and several points of lockout, it may not be feasible to string a long line of multiple lock adapters to each lockout point. (Time or economic constraints.) For this type of project, the group method of lockout will be used by performing the following:

1. An authorized employee must disable the equipment according to the written procedure.
2. Place the key(s) to the lock(s) used on the main disconnect(s) in a "lock box."
3. All employees exposed to injury if unexpected start up occurs must apply their own safety lock to the lock box, thereby securing lockout on the equipment.

Maintaining disconnect at shift change. If the job is not completed at the point that the authorized employee is to go off shift, the disabled equipment must remain secured. However, the individual Safety Lock will be removed by its owner. The employee going off shift must wait for the arrival of the next shift. The employee going off shift will remove his lock(s) and the employee coming on duty will place his lock(s) on the isolation devices.

Procedure for failure to remove a personal Safety Lock/Tag: When an employee could not, or did not remove his personal safety lock/tag from the equipment prior to leaving the facility, the following steps will be taken:

1. A Supervisor must make every effort to verify that the employee has left the facility.
2. The Supervisor must make reasonable efforts to try to reach the employee to notify him that he left his lock on the equipment. If possible, the employee will return to the facility to remove his lockout hardware.
3. If the employee cannot come in to remove his lock, the Supervisor and an Authorized Employee together must review the equipment, make sure it is safe to operate and then cut the employees lock off the disconnect.
4. The employee whose lock has been cut off will be notified of this prior to his/her resuming work at the facility. Placing a note on the time card will do this.

Outside Contractors

When outside contractors are called in to perform service or repair on equipment, they must follow their own Lockout Program. However, they may not know how to properly secure the equipment. Therefore, the following steps will be taken:

1. The person coordinating the project will notify the Program Coordinator when the project is to take place.
2. The Program Coordinator will notify the affected employees when and where the lockout will be in effect. Be sure to tell the employees that the contractor's Lockout hardware may appear different from that used in the facility, but they must treat this the same as if an in-house employee was performing the project.
3. Instruct the contractor on how to shut off and secure the equipment. Often, internal employees will be working on the same project. When that is the case, a (enter here) employee will secure the equipment using multiple lock adapters. The contracted employee(s) can then apply their own Lockout hardware to the adapters to assure zero energy state.

Periodic Inspections

Periodic (at least 1 per quarter) inspections will be performed to assure that employees are properly following procedure. The program coordinator and the Area Supervisor will participate in the inspection process. The inspection will include the following:

1. Ensure the employee(s) performing the work have been trained as authorized.
2. Ensure the locks and tags conform to the specifications of the program.
3. Ensure that all steps of the written procedure have been followed.
4. Review of any deficiencies uncovered during the inspection with the employee(s) performing the work assignment.

The program coordinator will maintain documentation of the following:

1. Date of Inspection and which Authorized person conducted the inspection.
2. All Authorized Persons involved in the inspection.
3. Identification of the equipment being serviced.
4. Comments regarding corrective action as needed.

Training Requirements

The Maintenance Manager will assure that all employees covered by this program receive proper training with documentation maintained by Human Resources.

Training will be conducted annually, and include the following information:

Authorized Employees (most extensive training):

1. A review of the aspects of this program.
2. How to recognize hazardous energy sources.
3. The types and magnitude of energy within your facility.
4. How to control and isolate energy prior to commencing repairs.
5. Location of equipment specific written procedures for complex lockout.

Affected and Other Employees:

1. A general explanation of this programs purpose and use.
2. A visual showing of a Safety Lock and Safety Tag. Explanation of the significance of this hardware to the authorized employee who uses it, and a serious discussion about the danger of anyone trying to remove this hardware or attempt to operate equipment that has been locked out by somebody else.

ALL Non-Authorized Employees are determined to be Affected Employees at this facility.

LIST NAMES OF AUTHORIZED EMPLOYEES:

1. 2.

3.	4.
5.	6.
7.	8.
9.	10.

NOTIFICATION OF SAFETY LOCK REMOVAL

_____
(Date Issued)

_____, on _____ _____
(Name of Employee Date Removed Supervisor Involved in Removal)

took part in the removal of safety lock(s)/tags identified as belonging to you, from the

_____. Under OSHA law, you must be notified of this prior
(Identify Piece of Equipment)

to your return to work at this facility. Please call, _____ at
(Employees Direct Supervisor)

_____ for review of the situation, and replacement of your personal
(Phone Number)

Safety Lockout Hardware.

_____ / _____
(Employee Signature Reviewing) / (Supervisor's Signature)

Reviewing Supervisor to return this form to Human Resources Manager for recordkeeping.

ENERGY CONTROL PROCEDURE INSPECTION

Company/Location:	Date:

Energy Control Procedure Inspected:

Machine/Equipment Inspected:

Authorized Inspector Name (print):

Authorized Employee(s) Working Under Inspected Procedure:
1.
2.
3.
4.

ENERGY ISOLATION

Inspection Steps	Yes	No
1. The written energy control procedure for the machine/equipment was reviewed prior to beginning lockout.		
2. Affected employees were notified that the machine/equipment must be shut down and locked out for service or maintenance.		
3. If operating, the machine/equipment was shut down using normal operating procedures.		
4. Any stored energy (gravity; trapped air, fluid, or gas; capacitors; springs; etc.) was dissipated and/or restrained by methods such as grounding, repositioning, blocking, bleeding, etc.		
5. Energy isolating devices were locked out with designated lockout locks. If more than one person participated, each person had a personal lock on every energy isolating device or a group lockout box was used and each authorized person had a personal lock on the group lock box.		
6. Energy dissipation and isolation were performed according to the written energy control procedures.		
7. The machine/equipment was reviewed to assure there were no exposed personnel, then the operating controls were activated to verify energy isolation. Operating controls were returned to "Off" or "Neutral" position.		
8. The inspected energy control procedure, as written, was adequate to properly protect authorized employees from injury due to unexpected activation of machinery/equipment		

RETURN TO SERVICE

Inspection Steps	Yes	No
1. The area around the machine/equipment was checked to ensure all non-essential items had been removed and that the machine/equipment components were operationally intact.		
2. The work area was checked to ensure all personnel were safely positioned or removed from the area.		
3. Controls were reviewed to verify they were in the "Off" or "Neutral" position.		
4. Energy isolation devices were removed according to the written energy control procedure.		
5. Affected employees were advised that the machine/equipment was ready for use.		

DEVIATIONS (describe in detail any "No" answers for any of the above; use another sheet if necessary)

ACTION PLAN (describe in detail the steps to be taken to correct deviations; use another sheet if necessary)

Action	Target Date	Person Responsible	Completion Date

Note: Any deviations require retraining which must be documented in the files of all employees authorized under the inspected energy control procedure.

SIGNATURES

Signature	Date
Inspector:	
Department Manager:	
Facility Manager:	

Safety Manager:	

CONTROL OF HAZARDOUS ENERGY SOURCES TRAINING LOG

INSTRUCTOR: _____ Authorized / Affected & Other
(Circle One)

I have trained the employees listed below on the Occupational Safety and Health Administration, 29 CFR 1910.147 Controls of Hazardous Energy Standard. A copy of the training outline is attached.

INSTRUCTOR'S SIGNATURE: _____

I have received training in this topic, understand the information provided, and have no further questions regarding this information.

EMPLOYEE'S NAME (PRINT)	EMPLOYEE'S SIGNATURE	DEPARTMENT	DATE

MACHINE INVENTORY

MACHINE INDENTIFICATION	ASSET#	ENERGY	DEPT	REF#

[redacted]

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