Evolution Maintenance, Inc

Lockout/Tagout Program

Effective Date:
Revision #:

OSHA

Reference Standard

Occupational Safety and Health Administration: The Control of Hazardous Energy (Lockout/Tagout) Subpart J, 29 CFR 1910.147

Purpose

This procedure establishes minimum standards for Lockout/Tagout in our facility. The goal is the prevention of accidents caused by the accidental energization of equipment or release of stored energy.

Scope

This procedure applies to all of our company employees, all contractors and vendors performing work on company property, and all other individuals who are visiting or have business with our company. This procedure covers the servicing and maintenance of machines and equipment in which the energization or start up of the machines or equipment, or release of stored energy, could harm employees. This standard establishes minimum performance requirements for the control of such hazardous energy.

Responsibilities

- Management is responsible for developing and periodically reviewing this program;
- Management is also responsible for appropriate employee training;
- Management and supervisors are responsible for enforcement of this program;
- Employees shall comply with all procedures outlined in this policy; and
- Contractors and vendors shall comply with all procedures outlined in this policy.

Definitions

Affected Employee: An employee whose job requires him or her to:

- operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout; or
- work in an area in which such servicing or maintenance is being performed.

Authorized Employee: A person who locks out or tags out machines or equipment in order to perform servicing or maintenance. An affected employee becomes an authorized employee when his or her duties include servicing or performing maintenance covered under this section.

Contractor: A non-company employee being paid to perform work in our facility.

Energy Sources: Mechanical, electrical, hydraulic, pneumatic, chemical, thermal, stored or other energy source.

Lockout: Placing a device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Stored Energy Source: A hidden energy source that is capable of releasing energy suddenly. These energy sources can cause injury or death. Examples include: springs, capacitors, heavy objects held against gravity, and hydraulic or pneumatic cylinders.

This policy is merely a guideline. It is not meant to be exhaustive nor be construed as legal advice. It does not address all potential compliance issues with federal, state, local OSHA or any other regulatory agency standards. Consult legal counsel to address possible compliance requirements. © 2005, 2011-2012 Zywave, Inc.

Tagout: Placing a device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout Device: A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Program Application

Our facility will always use Locks to achieve control of hazardous energy rather than tags except when an energy control device is not capable of being locked out.

Procedure

Energy Control Procedures

Our facility will maintain written energy control procedures for all equipment, unless the following elements exist:

- The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees;
- The machine or equipment has a single energy source which can be readily identified and isolated;
- The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment;
- The machine or equipment is isolated from that energy source and locked out during servicing or maintenance;
- A single lockout device will achieve a locked-out condition;
- The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance;
- The servicing or maintenance does not create hazards for other employees; and
- The employer, in utilizing this exception, has had no accidents involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

Written energy control procedures are available from the program administrator. These procedures are always available to authorized employees. (See Appendix A for the Machine Specific Energy Control Procedure)

Energy Control Hardware

- **Locks** - Each authorized employee will be assigned a sufficient number of locks to lock out the maximum number of energy control devices found on any equipment that he or she services or maintains. All locks used within our facility will have similar design and appearance. Each set of locks assigned to an authorized employee may be keyed alike, but only one key will be assigned for each lock;
- **Tags** - Each authorized employee will be assigned a tag for each lock. Additional tags can be obtained from the program administrator. Tags will always be used in conjunction with locks. All tags used in our facility will be the same; and
- **Other Equipment** - Hasps, valve and plug covers, chains, cables and other equipment to facilitate lockout is available in the maintenance department.

Preparation for Lockout

Prior to lockout, the authorized employee performing the task will do the following:

1. Review the Energy Control Procedure for the piece of equipment s/he will be working on. Be sure that all energy sources have been identified;
2. Procure all hardware needed to lockout all energy control devices;
3. Complete information on tags; and
4. Notify the "owner" of the equipment to be locked out (e.g. departmental supervisor, lead person, operator, etc.).

Lockout Sequence

1. Shut down all energy sources using normal stopping/shut down devices (stop buttons, switches, valves, etc.);
2. Isolate energy sources by applying a lock and tag to each control device. *Note: devices not capable of being locked will have a tag applied to the device or as close as possible to it*;
3. Stored energy must be dissipated or restrained;
4. Verify the energy isolation of the equipment by attempting to operate the machine using the normal operating controls *Note: check to be sure that it would be safe if restart actually happened*. Return the operating controls to off or safe; and
5. Barricade the work area as necessary and perform the work.

Restoration of Energy

1. Inspect the equipment to be sure that all tools and parts have been removed as necessary;
2. Replace guards and restore machine controls;
3. Notify the equipment "owner(s)" and other employees in the area;
4. Remove locks and tags;
5. Test operation of the equipment; and
6. Release equipment back to the "owner(s)."

Multiple Employee Lockout

When more than one employee is assigned to work on the same piece of equipment, each employee will apply her/his lock and tag to each energy control device. In cases where an energy control device cannot accept multiple locks a hasp or lock box may be used. In the case of a lock box, each energy control device will be secured with one lock but the key will be locked in a box that is capable of accepting the lock of every employee assigned to perform the work. The key cannot be obtained until all assigned employees have removed their locks.

Shift Change or Employee Reassignment

Whenever a job extends from one shift to the next, a change-over period will be established where the two or more employee's may change locks. The off-going employee will remove their locks and the on-coming personnel will apply theirs.

Prior to doing any work, the on-coming employee(s) will verify that all energy sources are safe and locked out. If an authorized employee is not available at shift change, a supervisor may serve as the on-coming shift employee.

Stored Energy

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

Testing or Positioning of Machines

In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

- Clear the machine or equipment of tools and material;
- Remove employees from the machine or equipment area;
- Remove the lockout or tagout devices;
- Energize and proceed with testing or positioning; and
- De-energize all systems and reapply energy control measures.

Emergency Lock Removal

Whenever Management determines that a lock must be removed the lock owner must be notified. If the lock owner is not in the plant, the following steps must be taken:

1. Call the lock owner at home. If an answering machine is in use, leave an appropriate message;
2. The supervisor, or another member of Management, will meet the employee at the entrance during the next scheduled shift and advise of the lock removal; and
3. The cut off lock will be placed on the owners work bench or tool box along with a note that explains where the lock(s) was removed.

Contractors

Contractors will be required to submit a copy of their Company's Lockout plan to our program administrator. Our facility will also submit a copy of our Lockout program to the contractor. Both the contractor and our program administrator will make their respective employees aware of significant differences in the programs.

We reserve the right to require that contractors use our facility lockout procedures if they are more protective than the contractor's program.

Training

Authorized Employees

Authorized employees will be trained, at the time of hire or at reassignment into an authorized employee position, in the following:

- Recognition of hazardous energy sources;
- Type and magnitude of energy in the facility; and
- Methods and hardware available for energy isolation and control.

Affected Employees

Affected employees and employees who may work in areas where equipment is locked out will be trained to recognize lockout locks and tags at the time of hire or assignment requiring this training. Training will include the purpose and use of the energy control procedure.

Affected employees will also be instructed that under no circumstances is anyone to remove a lock and/or a tag other than the person who applied it.

Authorized and Affected Employees

Retraining will be provided as follows:

- When the periodic inspection reveals a need for retraining;
- When a new hazard is identified;
- When the procedure changes; or

- When the program administrator determines that there is a need for additional training.

Other Employees

All other employees shall be trained on whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

When tagout systems are used, employees will also be trained in the following limitations of tags:

- Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock;
- When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated;
- Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective;
- Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace;
- Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program; and
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

Periodic Inspection

Annually, the program administrator will assign an appropriate authorized employee, other than the one utilizing the procedure under review, to review the following:

- All Energy Control Procedures for accuracy and need for updating;
- Each authorized employee and her/his responsibilities and understanding of the Lockout program (this may be accomplished through group meetings); and
- If any tagout only is utilized in our facility the inspector will also review the employee. responsibilities with all affected employees

The periodic inspection will certify the following:

- The identity of the equipment being utilized;
- Whenever there is a change in their job assignments;
- The inspection date; and
- Employees included in the inspection.

Revision History Record:

Revision Number	Section	Revised By	Description
0	NA	NA	Original document.

Appendix A

ENERGY CONTROL PROCEDURE

Lockout/Tagout Energy Control Procedure

Equipment or Process: _____

Location of Equipment: _____

Date prepared _____ **Prepared by** _____

Energy Sources

Type of Energy	Isolation Location	Type of Lockout Device
Electrical	1. 2.	1. 2.
Stored		
Mechanical		
Pneumatic		
Hydraulic		
Thermal		
Chemical		

Special Hazards	Procedure for Control of Special Hazard

Special Procedures

Stored Energy Release Procedure

Notes
Isolation Location shall positively identify the exact breaker, valve, switch or other disconnect or blocking device to be locked and tagged to isolate the source of energy from the work area.
Type of Lockout shall specifically name the exact type of locking device needed.
Stored Energy: Following the application of the lockout or tagout devices to the energy isolating devices, all potential or residual energy will be relieved, disconnected, restrained, and otherwise rendered safe.
Multiple Sources: use numbers to add multiple sources as listed under Electrical