

Chapter 13 LOCKOUT/TAGOUT PROCEDURE

Purpose

This program establishes the minimum requirements for lockout of energy sources that could cause injury to personnel. All employees shall comply with the procedure.

Responsibility

The responsibility for seeing that this procedure is followed is binding upon all employees. All employees shall be instructed in the safety significance of the lockout procedure by the Production Supervisor. Each new or transferred affected employee shall be instructed by the Production Supervisor in the purpose and use of the lockout procedure. A competent person, designated by the Safety Committee, is responsible for periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, startup or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source and rendered inoperative.

Training

The Production Supervisor shall train all employees to ensure that the purpose and function of the energy control program are understood, and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees. The training shall include the following:

1. Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control. This training will cover equipment in all departments.
2. Each affected employee shall be instructed in the purpose and use of the energy control procedure.
3. All other employees 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 shall also be trained in the following limitations of tags:

1. 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.
2. 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.
3. 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.

4. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
5. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
6. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

Additional retraining shall also be conducted whenever a periodic inspection under section reveals, or whenever the employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures. The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

Sign Designs, Inc. will issue a certification that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

Preparation for Lockout

Employees authorized to perform lockout shall be certain as to which switch, valve, or other energy isolating devices apply to the equipment being locked out. More than one energy source (electrical, mechanical or others) may be involved. Any questionable identification of sources shall be cleared by the employees with their supervisors. Before lockout commences, job authorization should be obtained. Proper lockout of each piece of equipment is noted in the Workstation/Operation Procedural Guide section of this program.

Sign Designs, Inc. can easily identify the equipment located in the production facility. The same is not true of on-site service and installation where the greatest hazards exist. Any number of lockout devices are available for use in the field. Hasps, switch locks, circuit breaker locks and panel locks are to be used to isolate electrical energy while servicing or installing signage.

If an energy isolating device is not capable of being locked out, the employee shall use a tagout system. Proper tags are provided for this purpose. A tag stating "Danger, Do Not Operate, Equipment Locked Out" shall be used and signed by the person working on the sign.

Prior to shutdown, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

Sequence of Lockout Procedure

1. Notify all affected employees that a lockout is required and the reason therefore.
2. If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).

3. All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).
4. Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees. Lockout devices, where used, shall be affixed in a manner to that will hold the energy isolating devices in a "safe" or "off" position. Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited. Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached. Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
5. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, other) is disconnected or isolated from the equipment. Stored energy, such as that in capacitors, springs, elevated machine members, rotation fly wheels, hydraulic systems, and air gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down. CAUTION: Return operating controls to neutral position after the test.
6. 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.
7. Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.
8. The equipment is now locked out.

Restoring Equipment to Service

Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

1. The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.

2. The work area shall be checked to ensure that all employees have been safely positioned or removed.
3. After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.
4. Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device. When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the on-site supervisor.

Testing

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:

1. Clear the machine or equipment of tools and materials in accordance with section.
2. Remove employees from the machine or equipment area in accordance with this section.
3. Remove the lockout or tagout devices as specified in this section.
4. Energize and proceed with testing or positioning.
5. De-energize all systems and reapply energy control measures in accordance with this section to continue the servicing and/or maintenance.

Service and install employees shall inform the clients supervisor of the lockout or tagout procedures. In the event that the client has their own procedures, employees shall communicate to assure that both procedures are satisfied.

Group Lockout or Tagout

When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.

Group lockout or tagout devices shall be used in accordance with the procedures required by this section including, but not necessarily limited to, the following specific requirements:

1. Primary responsibility is the Production Supervisor for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock)
2. The Production Supervisor will ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment.
3. When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to the Production Supervisor to coordinate affected work forces and ensure continuity of protection.
4. The Production Manager and each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.

During a shift change the new authorized employee shall affix a personal lockout or tagout device prior the removal of the retiring shift employee. This transfer shall be under the direction of the Production Supervisor to minimize exposure to hazard from the unexpected energization or start-up of the machine or equipment, or the release of stored energy.

Procedure Involving More Than One Person

In the preceding steps, if more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s). One designated individual of a work crew or a supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. Additionally, the designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

Rules for Using Lockout Procedure

All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device bearing a lock.

The authorized employee should ascertain the exposure status of individual group members. Each employee shall attach a personal lockout or tagout device to the group's device while he/she is working & then removes it when finished. During shift change or personnel changes, there should be specific procedures to ensure the continuity of lockout or tagout procedures. Documentation should be specific.