



CALIFORNIA STATE UNIVERSITY, FULLERTON

Environmental Health & Safety

Lockout/Tagout Program

I. Policy

It is the policy of California State University, Fullerton to maintain, insofar as is reasonably possible, a campus environment for faculty, staff, students and the public that will not adversely affect their health and safety nor subject them to avoidable risks of accidental injury or illness. Furthermore, the University has an obligation to safeguard employees from hazardous energy while they are performing servicing or maintenance on machines and equipment.

II. Authority

Code of Federal Regulations, 29 CFR 1910.147; California Code of Regulations, Title 8, Sections 2320.1 and 3314; CSU, Fullerton Injury and Illness Prevention Program.

III. Scope

This program applies to all University departments whose employees service or maintain equipment and machines which could either unexpectedly start up, or work in areas where the possibility of the release of stored energy could cause injury to employees. This includes authorized employees who perform repair, servicing and maintenance operation and affected employees who work with the equipment to be locked or tagged out.

This program does not apply in the following situations:

- A. Servicing or maintaining of cord and plug connected electrical equipment.
- B. During hot tap operations that involve transmission and distribution systems for gas, steam or water when they are performed on pressurized pipelines.
- C. When employees are provided with an alternative type of protection that is equally effective.

IV. Definitions

Affected Employee - an employee who performs the duties of his or her job in an area in which the energy control procedure is implemented and servicing or maintenance operations are performed, or work with the equipment to be locked or tagged out.

Authorized Employee - an employee who performs servicing or maintenance on machines and equipment. Lockout or Tagout is used by these employees for their own protection.

Energy Isolating Device - any mechanical device that physically prevents the transmission or release of energy. These include electrical circuit breakers, disconnect switches, line valves, and blocks.

Energy Source - any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.

Energy Control Procedure - written documentation that contains all information needed for authorized employees to safely control hazardous energy during servicing or maintenance of machines or equipment.

Lockout - the placement of a lock on an energy isolating device such as a circuit breaker, disconnect switch, line valve or block in accordance with established procedure so that the equipment or machine controls cannot be activated until the lockout device is removed.

Tagout - placement of a tag, sign or label to an energy isolating device as a warning to others that the equipment or machine cannot be operated until the tagout device is removed.

V. Accountability

Department

The director, chair, or head of each department is responsible for determining if activities involving the use of hazardous energy sources are subject to and performed in accordance with the requirements of this program. Environmental Health & Instructional Safety (EH&IS) will be assisting departments in this determination.

Physical Plant

A majority of the hazardous energy sources on campus are the responsibility of the Physical Plant Department. They are responsible for the following:

- A. Identify all Plant maintained machinery or equipment which would be subject to this program.
- B. Identify "authorized" and "affected" employees within Physical Plant.
- C. Ensure that all authorized and affected employees in Physical Plant receive proper training on the Lockout/Tagout Program.
- D. Develop, document and utilize written energy control procedures for each potentially hazardous energy source.

- The procedures must designate the person-in-charge for each department/trade shop
- E. Ensure all new and refurbished equipment is capable of accommodating lockout devices.
- F. Provide ongoing funding of the Lockout/Tagout program.

Environmental Health & Instructional Safety

EH&IS will be responsible for the following:

- A. Develop and maintain a written program which complies with the requirements of OSHA and Cal/OSHA.
- B. Provide training to Physical Plant supervisors on the requirements of the program.
- C. Assist Physical Plant in identifying hazardous energy sources and choosing of proper lockout/tagout devices.
- D. Perform periodic inspections to ensure compliance with program procedures.

Authorized and Affected Employee

- A. Comply with the provisions of the Lockout/Tagout Program.
- B. Assist in the identification of hazardous energy sources and report these to their supervisor.
- C. Report to their supervisors whenever lockout procedures are not being followed.

VI. Program

Identification of Sources

Physical Plant and other departments which have hazardous energy sources must identify all machinery and equipment that is subject to the Lockout/Tagout program. All rooms and equipment will be signed with warning labels.

Energy Control Procedure

Written procedures for each energy source must identify the information authorized employees must know in order to control hazardous energy during servicing or maintenance. If the information is the same for a group of machines or equipment, then a single energy control procedure may be sufficient. Procedures will include the following:

1. Procedural steps to shutdown, isolate and secure machines or equipment.
 - A. Prepare for shutdown.
 - B. Shut down the machinery or equipment.
 - C. Apply the lockout or tagout device.

- D. *Tagout devices shall state the reason for the interruption of equipment usage.*
- E. Safely release all stored energy.
- F. Verify the isolation of the machine or equipment.

2. Procedural steps to shutdown, isolate and secure machines or equipment during a hazardous material abatement project.

- A. Contractor must contact EH&IS prior to commencement of abatement project.
- B. Contractor shall notify project manager, Inspector of Record (IOR), and EH&IS to coordinate shut down of mechanical air handler during actual abatement.
- C. Authorized Central Plant personnel will apply lockout/tagout devices in addition to the contractor's own lockout/tagout devices.
- D. Notification to Service Center and Central Plant Manager will be made by EH&IS once abatement time has been established.
- E. Notification to remove the lock will be made to Service Center, Central Plant Manager, and Authorized Central Plant personnel by EH&IS once confirmation of adequate safety measures has been established.

3. Procedural steps for re-energizing equipment after servicing is complete.

- A. Inspect the work area to ensure all items have been removed and that the equipment is intact and capable of operating properly.
- B. Notify affected employees immediately after removing locks or tags and before starting equipment or machines.
- C. Make sure tags or locks are removed only by those employees who attached them.

Exception:

When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed using a master key, under the direction of the Associate Director of Physical Plant, provided that the following conditions are met:

- 1. Verification by the employer that the authorized employee who applied the device is not at the facility
- 2. Make all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed.
- 3. Ensure that the authorized employee has this knowledge before he/she resumes work at the facility.

Lockout/Tagout Devices

In every instance, a lockout device is preferable to a tag because tags do not present a physical restraint to the startup of equipment. Tags are warning devices which can be easily removed, bypassed, obscured or ignored. When a tag is used, further steps must be taken such as removing a circuit fuse to ensure the safety of others.

The following are requirements for lockout/tagout devices:

- A. Departments are responsible for providing employees with a sufficient number of devices for control of hazardous energy. *Employees in each affected department will be issued locks to be used for lockout/tagout.*
- B. *Employees in each affected department will be issued tagout devices. It will be of re-usable type and will contain the employees identification and contact information.*
- C. *A designated color for lockout devices will be assigned for each department/shops. Identification of owner and contact information shall be clearly visible on lockout and tagout devices. Tagout devices shall clearly state the reason for the interruption of equipment usage.*
- D. Lockout/Tagout devices must be only used or controlling energy and shall not be used for other purposes.
- E. Lockout/Tagout devices must be capable of withstanding the environment for the period of time they will be applied. Tagout devices must be constructed and printed so that the exposure to weather, wet conditions or corrosive environments will not alter the tag or make it unreadable.
- F. Lockout/Tagout devices must be standardized within the University. Color, shape or size must be standard. With tagout devices, print and format must be standard.
- G. Lockout devices must be sturdy enough to prevent removal without the use of excessive force. Tagout devices must be sturdy enough to prevent inadvertent or accidental removal. Tagout attachment devices must be non-reusable and self-locking.
- H. Devices must indicate the identity of the employee applying the device. Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include warnings such as "Do Not Open, Do Not Close, Do Not Operate."

Note: Lockout devices issued for the Lockout/Tagout program are not intended for use to lockdown equipment that is out of service for an extended period of time. Please refer to Physical Plant's Maintenance Procedure for this type of situation.

Inspection Procedures

To ensure this compliance with this program, the department must conduct an annual inspection of the procedures.

- A. The inspection must be conducted by an authorized employee other than the one using the control procedures.
- B. The inspection must be designed to correct any deficiencies.

- C. The inspection shall include a review of procedures with the authorized employees.
- D. The inspection must be documented with the name of the machine or equipment for which the procedures are utilized, the date, the employees included and the person conducting the inspection. Records must be kept for five years.

Employee Training

EH&IS will be responsible for training to ensure the purpose and function of the Lockout/Tagout program is understood by all authorized and affected employees.

Employees

- A. Authorized employees must receive training in the recognition of hazardous energy sources and the methods used for isolation of these sources.
- B. Affected employees shall be instructed in the purpose and use of the energy control procedure.
- C. All other employees who work in the area must be made aware of the control procedures and about the prohibition on restarting equipment that has been locked or tagged out.

When tags are used, training must include the following:

- A. Tags are warning devices and do not provide physical restraint.
- B. Tags cannot be removed other than by the authorized person responsible for it.
- C. Tags must be legible and understandable by all employees.
- D. Tags must be made out of sturdy material and capable of withstanding the environment in which they are used.
- E. Tags must be securely attached so that they cannot be inadvertently detached.

Retraining

Retraining shall be provided whenever there is a change in job assignment, a change in machines, equipment or processes or when there is a change in the energy control procedures.

Record keeping

Documentation must be kept on the employee's name, date of training and name of trainer.

Contractors and Vendors

Contractors and vendors who perform work on University property must adhere to the *minimum Cal/OSHA requirement*. Training must be provided to contractor's employees by the contractor and must *adhere to the minimum training requirement established by Cal/OSHA*. It is the responsibility of the project manager to ensure these instructions have been carried out.

Policy Exceptions

A written procedure need not be developed for a particular machine or equipment, when all of the following elements exist:

- A. There is no potential for energy to be stored or re-accumulated after the shutdown.
- B. There is a single, readily identifiable source of energy isolation, and the isolation completely de-energizes the equipment.
- C. The machine is locked out during service.
- D. Application of a single lockout device provides a complete lockout condition.
- E. The lockout device is under the exclusive control of the employee performing the work.
- F. The maintenance or service does not itself create a hazard to other employees.
- G. There have been no accidents or incidents involving the unexpected activation of machines during service or maintenance.

Responsible Executive:

Vice President for Administration and Finance

Responsible Office:

Environmental Health & Safety

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