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 and California Code of Regulations, Title 8, Sections 2320.1 – 2320.6 and 3314.

III. Scope

This program applies to all University departments whose employee's service or maintain equipment and machines which could unexpectedly start up or who 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 operations 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 maintenance 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 whose job requires them to operate or use a machine or equipment on which cleaning, repairing, servicing, setting-up or adjusting operations are being performed under lockout or tagout, or whose job requires the employee to work in an area in which such activities are being performed under lockout or tagout.

Authorized Employee - A qualified person who locks out or tags out specific machines or equipment in order to perform cleaning, repairing, servicing, setting-up, and adjusting operations on that machine or equipment.

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 use of devices, positive methods and procedures, which will result in the effective isolation or securing of prime movers, machinery and equipment from mechanical, hydraulic, pneumatic, chemical, electrical, thermal or other hazardous energy sources.

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.

Hot Tap - A procedure used in the repair, maintenance and services activities which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

V. Accountability

A. 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 & Safety (EHS) will be assisting departments in this determination.

B. Facilities Maintenance

A majority of the hazardous energy sources on campus are the responsibility of Facilities Maintenance. They are responsible for the following:

1. Identifying "authorized" and "affected" employees within Facilities Maintenance.

2. Ensure all new and refurbished equipment is capable of accommodating lockout devices.

3. Provide ongoing funding of the Lockout/Tagout program.

C. Environmental Health & Safety (EHS)

EHS will be responsible for the following:

1. Develop and maintain a written program which complies with the requirements of OSHA and Cal/OSHA.

2. Provide training to Facilities Maintenance supervisors on the requirements of the program.

3. Ensure that all authorized and affected employees in Facilities Maintenance receive proper training on the Lockout/Tagout Program.

D. Authorized and Affected Employees

1. Comply with the provisions of the Lockout/Tagout Program.

2. Assist in the identification of hazardous energy sources and report these to their supervisor.

3. Report to their supervisors whenever lockout procedures are not being followed.

VI. Program

E. Energy Control Procedure

Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this section.

- Exception: The employer need not document the required procedure for a particular machine or equipment, when all of the following elements exist:
    - The machine or equipment has no potential for stored or residual energy or re-accumulation 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.

The written procedures for each energy source shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:

a) A specific statement of the intended use of the procedure.

b) Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy

c) *Specific procedural steps* for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them.

d) Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

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

a) Contractor must contact EHS prior to commencement of abatement project.

b) Contractor shall notify project manager, Inspector of Record (IOR), and EHS 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 EHS 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 EHS 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 to #3(c): When the authorized employee who applied the lockout/tagout device has left the premises or is otherwise unavailable, other persons may be authorized by the employer to remove the locking devices and tags in accordance with a procedure determined by the employer. Under the direction of EHS, the lock may be removed provided that the following conditions are met:

  - Verification by the employer that the authorized employee who applied the device is not at the facility.

  - Make all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed.

  - Ensure that the authorized employee has this knowledge before he/she resumes work at the facility.

F. 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:

1. 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.

2. Employees in each affected department will be issued tagout devices. It will be of re-usable type and will contain the employee's identification and contact information.

3. 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.

4. Lockout/Tagout devices must only be used for controlling energy and shall not be used for other purposes.

5. 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.

6. 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.

7. 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," or "Do Not Operate."

G. ,Inspection Procedures

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

1. The inspection must be conducted by an authorized employee other than the one using the control procedures.

2. The inspection must be designed to correct any deficiencies.

3. The inspection shall include a review of procedures with the authorized employees.

4. 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.

H. Employee Training

1. EHS will be responsible for training to ensure the purpose and function of the Lockout/Tagout program is understood by all authorized and affected 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.

2. 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.

3. 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.

4. Record keeping

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

I. 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.

Responsible Executive: Vice President for Administration and Finance
Responsible Office: Environmental Health and Safety
Originally Issued: 2/1996
Revised: 1/2002, 1/2008, 6/2018 4/2020