

EQUIPMENT LOCKOUT/TAGOUT

UNO Campus Safety Policy

The Equipment Lockout/Tagout program is designed to maximize personnel safety when servicing and maintaining equipment. The Lockout/Tagout (LOTO) Policy requires that the person(s) servicing equipment be in control of the energies present in the equipment. All affected employees must be aware of this policy to avoid attempts at restarting equipment that has been locked out. Areas of this program include: Scope + Departmental Equipment Lockout Procedure + Proper Sequence of Lockout + Periodic Inspection + Hardware Identification + Training and Communication + Employee Responsibility and Enforcement + Definitions.

Scope

This program covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees. This program establishes minimum performance requirements for the control of such hazardous energy.

This program also applies when:

- A. An employee is required to remove or bypass a guard or other safety device; or
- B. An employee is required to place any part of his or her body into an area or piece of equipment where an associated danger zone exists during a machine operating cycle.

The control of hazardous energy must be controlled through the use of locks (and chains if necessary). Tags will be used as communication tools only.

Departmental Equipment Lockout Procedure

Written department procedures for specific equipment lockout must be documented by the operating department and will include: equipment identification, department number, type and magnitude of energy, type and location of energy isolation devices, type of stored energy and methods to dissipate or restrain it.

While departmental equipment procedures must be detailed and specific, they are not required for every piece of equipment. Similar design equipment (using the same type and magnitude of energy) which have similar types of control can be covered with a single procedure (water conditioning systems, HVAC systems, etc.). Equipment numbers and names must be listed for the applicable common procedures.

Procedures will be written and maintained by the department to which the equipment is assigned or in cooperation with the Maintenance department. These procedures must be kept current and accessible to the persons servicing the equipment.

Proper Sequence of Lockout

To protect personnel during equipment maintenance, the following procedures must be performed in the order presented:

1. Secure the department procedure for equipment to be locked out.
2. Notify affected employees that a lockout will be performed on their equipment.
3. Shut the equipment down in an orderly fashion.
4. Operate energy isolation devices to isolate equipment from energy sources and apply locks to energy isolation devices.
5. Relieve, blank, disconnect secondary (stored) energy.
6. Verify the lockout (attempt to start).
7. Keep the lockout in force.
8. Finish safely.

Periodic Inspection

To ensure that the equipment lockout procedure is being performed as described in this program, inspections must be scheduled in each department annually. The inspection must be performed by an "authorized" employee from a department different than the one being inspected. The inspector will:

- Identify any inadequacies and review those with "authorized" employees in the department.
- Review "authorized" personnel responsibilities in this program.
- Document the following information:
 - Equipment serviced during the lockout
 - Date of inspection
 - Employees included in the inspection
 - Inspector's name
 - Inadequacies identified and shared with "authorized" personnel.
 - Forward a copy of the inspection report to Environmental Health & Safety

Hardware Identification

A. Lockout devices must indicate the identity and department of the employee who attaches the device.

B. The safety lock used on campus is a "BEST" lock ZZ option with the inscription "Safety First" on the case and two holes in the extended skirt.

Safety Locks Must Not Be Used for Other Purposes. It is imperative that the campus safety lock be readily identified as such in all departments on campus.

C. Lockout Tags will be used as communication tool only. Tags cannot stand alone as a lockout device, except when applying a lock at the isolation point has no value in securing a lockout condition. Examples - locks on blocks, wedges, pipe blanks or skilllets cannot help secure these isolation points. Tags should be attached to those locations to identify the "lockout" condition and person working on that equipment.

D. The lockout tag (Brady #66080). DO NOT OPERATE.

Training and Communication

Training will be provided to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of energy control are acquired by employees. The training should include the following:

A. Each authorized employee will 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.

B. Each affected employee will be instructed in the purpose and use of the energy control procedure.

C. All other employees whose work operations are or may be in an area where energy control procedures may be utilized, will be informed about the procedure, and about the prohibition toward attempting to restart or reenergize machines or equipment which are locked out.

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 will also be conducted whenever a periodic inspection reveals that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

The manager of the department will certify that employee training has been accomplished and is being kept up-to-date. The documentation shall contain each employee's name and dates of training.

Employee Responsibility and Enforcement

It is the responsibility of all employees to obey established safety rules. Lockout/tagout is an established safety program at UNO. Employees will comply with the lockout/tagout procedures.

If at any time an employee is unsure of the procedure, they will consult with the supervisor. Employees who do not follow these lockout procedures are subject to discipline outlined in the UNO Employee Handbook. Disciplinary action could range from a verbal reprimand to termination.

Special Conditions

Contractors - Contractor personnel must be aware of this lockout program and applicable procedures. The scope of this procedure will be communicated to contract personnel by construction services personnel or by the department supervisor if construction services is not involved with the project. Contractors should also provide to campus Maintenance/Grounds Supervisor their energy control program, i.e., locks and tags used in their lockout program.

Lock Removal - If the employee who placed a lock on the equipment is absent from the site, the lock may be removed provided:

1. The supervisor will attempt to contact the employee, determine the status of the work and the reason the lock was left at the job site.
2. If the equipment can be returned to service, Campus Security will remove the lock only in the presence of the supervisor. All of the above will sign the "Lock Removal Authority" form (See Attachment 1.) provided by Campus Security. A copy of this form will be forwarded to the Manager of Maintenance and Operation Services.
3. The supervisor ensures that the employee is notified that his lock has been removed before he resumes work.
4. No lock or chains will be cut.

Group Lockouts - Group lockouts can be accomplished through a lockbox and multiple lock system. One employee must take responsibility for a set of employees. If more than one crew is involved, one employee must coordinate the affected groups to ensure continuity for the protection of all.

Multiple Person Lockout - If more than one person is working on a piece of equipment. Each person must use their personal safety lock to secure the equipment. This can be accomplished by using hasps, daisy chaining the locks (by placing your lock through the holes in extended skirt of the lock), or a lockbox.

Keeping the Lockout in Force - If the maintenance on equipment extends beyond your shift receive a departmental safety lock from the Supervisor and place that lock on the equipment in place of your lock. The key to the departmental safety lock is returned to the Supervisor. **PERSONAL SAFETY LOCKS MUST NOT REMAIN ON EQUIPMENT AFTER YOUR SHIFT.** Be certain to follow the 8-step lockout procedure when you return to the job to ensure the equipment is still locked out in the proper manner before beginning work on the equipment.

Definitions

Affected employee - an employee whose job requires him/her to operate equipment on which maintenance is being performed under lockout, or whose job requires him/her to work in an area in which such maintenance is being performed.

Authorized employee - a person who locks equipment to perform the maintenance on that equipment. An authorized employee and an affected employee's duties also include performing maintenance on equipment which must be locked out.

Departmental safety locks - The departmental lock is a lock or set of locks under control of the area supervisor. They could be used when:

- work on the equipment has been suspended or interrupted
- on group lockouts
- on equipment that has multiple energy isolation devices, i.e., boilers, chillers.

Departmental lock sets will be placed on lockout boards in the Utilities Plant and ASH Maintenance Shop.

Energy isolating device - a mechanical device that physically prevents the transmission or release of energy. Examples: a manually operated electrical circuit breaker; a line valve; a block. The term does not include a push button, selector switch, and other control circuit type devices.

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

Lockout - the placement of a lockout 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.

Maintenance - workplace activities such as construction, installing, setting up, adjusting, inspecting, modifying, and maintaining equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.