



Policy Title:	Lockout/Tagout
Policy Number:	UNIV-425
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Policies Superseded:	1862; FINA-710
Policy Management Area(s):	Environmental Health and Safety

SUMMARY:

The purpose of this policy is to establish a lockout/tagout (LOTO) procedure to ensure that any individual performing work on any equipment or machinery on this campus is protected from the unexpected energizing of the equipment or machinery while it is being serviced, cleaned or repaired. The use of a tag will be a means to notify employees that equipment or a device is damaged or not operating within normal parameters and is not to be used until repaired or a replacement provided.

POLICY:

I. DEFINITIONS

- A. LOTO – Lockout/Tagout
- B. Affected employee – any employee whose job requires him/her to operate or use any machinery or equipment that could be in LOTO for maintenance or repairs.
- C. Authorized employee – any employee or contractor that has been trained and authorized to LOTO equipment or machinery to perform the necessary repairs to allow it to be operational again.
- D. Energy source – any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.
- E. Energized – connected to an energy source or containing residual or stored energy.
- F. Lockout – the placement of a locking device on any energized equipment or machinery to keep it in a safe position and to prevent the equipment or machinery from being energized. The individual who installed the lock and/or warning tag is the only person authorized to remove the lock once the equipment is deemed safe for use.

- G. Tagout – The use of warning tags that can be attached to equipment or machinery to warn other employees/contractors that someone is working on this particular item and that it is not to be energized by anyone except for the individual that placed the warning tag. The use of the tag also isolates the broken or damaged equipment/device from being operated or used. The individual that installed the warning tag is the only person authorized to remove the tag once the equipment is deemed safe for use.

II. PURPOSE

The purpose of this policy is to establish a lockout/tagout (LOTO) procedure to ensure that any individual performing work on any equipment or machinery on this campus is protected from the unexpected energizing of the equipment or machinery while it is being serviced, cleaned or repaired.

III. RESPONSIBILITIES

- A. The following areas/positions will be considered affected departments/employees:
1. Facilities, Planning and Management
 2. Information Technology Services
 3. University Housing
 4. Appropriate faculty and staff
 5. Electricians
 6. HVAC technicians
 7. Plumbers
 8. Mechanics
 9. Fire safety staff
 10. Environmental Health and Safety
 11. Laboratories, shops and art studios
 12. Contractors and vendors working on campus

IV. PROCEDURES

- A. The implementation of the LOTO procedure must only be performed by authorized employees. The affected employees will be notified that the LOTO procedure will be implemented on a specific piece of equipment or within a specific area.
- B. The established procedure for LOTO is as follows:
1. Prepare for shutdown – Before an authorized employee turns off any machinery or equipment, he/she should know the type of energy source that is involved. The appropriate affected employee can assist in the identification of all hazardous energy source(s) associated with the equipment.

2. Shutdown of equipment or machinery – The proper shutdown procedure will be implemented to avoid any possible hazard to employees.
3. Equipment or machinery isolation – All of the energized components of the equipment or machinery will be physically located and then operated (turned on and then off) to ensure the equipment or machinery is disconnected from its energy source.
4. Lockout/tagout – LOTO devices must be fastened to each hazardous energy source by an authorized employee. LOTO devices shall be attached to the energy source in a “safe” or “off” position. The tagout devices must be attached so that they clearly indicate that the energy source is in the “safe” or “off” position. The energy sources on which tagout devices are used must be able to be locked. If a tagout cannot be installed on the energy source itself, it will be installed close enough so that it is obvious that the equipment it is not operational.
5. Stored energy – If there is a possibility that the stored energy could reach a hazard level, then it must be isolated before any work is begun. Following the installation of a LOTO device, it must be verified that the stored energy has been safely eliminated.
6. Verify the isolation – The authorized employee must verify that the equipment or machinery is isolated and de-energized (by trying to turn on the equipment/machine).
7. LOTO release – Before the LOTO devices are removed and the energy source restored to the equipment or machinery, the following procedure must be followed:
 - a. The work area must be inspected to ensure that all non-essential items have been removed from the equipment or machinery.
 - b. The authorized employee must check the work area to ensure that employees are safely out of harm’s way or are evacuated from the area before the energy is restored.
8. LOTO device removal – The authorized employee who originally installed each LOTO device must be the same individual who removes the device(s) from each of the energy sources, the only exception being if the original installer is unavailable due to extreme circumstances, in which case the initial authorized employee’s supervisor must observe the following protocol:
 - a. Verify that the initial authorized employee, the individual who installed the LOTO device, is not in the area or available.
 - b. Contact Environmental Health and Safety.
 - c. Prior to return to work in the affected area, contact the initial authorized employee who installed the LOTO device and advise that the device has been removed by the supervisor.
9. Testing the repaired equipment or machinery – In the event that the installed LOTO device must be temporarily removed by the authorized employee from the energized equipment or machinery to test for normal operations or repairs, the following protocol shall be followed:
 - a. Clear the equipment or machinery of all tools and materials.

- b. Have all employees leave the area where the equipment or machinery is located.
 - c. Remove the LOTO device.
 - d. Energize the equipment or machinery and begin the test sequence.
 - e. De-energize all of the systems and reapply the LOTO device as needed.
- 10. Group LOTO – When maintenance on any equipment or machinery requires work by more than one individual or through more than one shift, then, for the protection of all the employees involved, each authorized employee shall place his/her personal LOTO device as follows:
 - a. The primary authorized employee will apply a multi-locking device to the energized equipment or machinery.
 - b. The primary authorized employee will attach his/her lock to the multi-locking device.
 - c. Each additional authorized employee will attach his/her personal LOTO device to the multi-locking device when beginning work and remove it when finished.
 - d. The primary authorized employee will remove his/her LOTO device on the multi-locking device when all work on the affected equipment or machinery has been completed.
- 11. Personnel changes – To ensure proper transfer of the responsibility for de-energization of affected equipment or machinery from one authorized employee to another authorized employee:
 - a. The oncoming employee will notify the departing employee of readiness for responsibility transfer.
 - b. The LOTO device(s) of the departing employee that is/are attached to the equipment or machinery will be removed and replaced with the LOTO device(s) of the oncoming employee.
 - c. The supervisor will be notified of the transfer and coordinate the activities of the departing employee and the oncoming employee so that the area is deemed safe.
- 12. Any equipment or device that is deemed damaged, broken or operating outside of normal parameters will be tagged with a “Do Not Operate” tag placed at or near the point of operation.
 - a. The tag will remain on the equipment or device until it has been repaired or replaced, and can only be removed by the person who originally tagged the unit.
 - b. The equipment or device must not be used or operated until the tag has been properly removed.

V. Training

- A. All authorized employees will be trained regarding the purpose of the energy control program. The program training will include recognition of energy sources, and the safe application and removal of LOTO energy controls. Each affected employee will be instructed in the use of the energy control procedures. All other

employees whose work operations may be affected by the need for LOTO controls should be trained on the regulations and procedures regarding startup of equipment or machinery that has an installed energy-controlling LOTO device.

- B. Employees will be trained on the limitations of the actual tags. Tags are essentially warning devices that are attached to the energized equipment or machinery; they do not provide the actual physical restraint that a lockout device does. When a tag is attached to something that can be energized, then it is not to be removed without permission of the authorized employee who installed the tag. The tag should never be bypassed, ignored or otherwise disregarded. Tags must be legible and understandable by all employees and contractors who may be in the area. Tags and their means of attachment must be made of materials that will withstand environmental conditions that are in the workplace. Tags must be securely attached to the energized equipment or machinery to avoid inadvertent or accidental detachment during use. Tags may evoke a false sense of security, so their worth needs to be understood as only a part of the overall energy control program.
- C. Retraining will take place when an authorized or affected employee has a change in job duties. This could include the operation of different or new equipment or machinery on campus.
- D. Any noted violation of this policy will result in retraining and possible disciplinary action.