



ILLINOIS STATE UNIVERSITY LOCKOUT TAGOUT PROCEDURE



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1. PURPOSE AND SCOPE

The purpose of this procedure is to establish minimum guidelines to ensure the safety and health of personnel who may be required to work on any type of equipment capable of being energized or harboring stored energy. This program will be used to ensure that a machine or equipment is stopped and isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization, start-up of the machine/equipment, or release of stored energy could cause injury.

This procedure applies to all Illinois State University employees who may be required to work on this type of equipment or otherwise be exposed to the unexpected energization of this equipment.

2. RESPONSIBILITIES

Everyone involved in Lockout Tagout Program has certain responsibilities. It is very important that every individual is familiar with his/her responsibilities.

a. ENVIRONMENTAL HEALTH AND SAFETY

- Will monitor implementation of this procedure for compliance. Non-compliance will be reported to responsible supervision for appropriate action.
- Shall perform an annual inspection of departmental energy control programs/practices to ensure that requirements of this procedure are being followed. Non-compliance will be noted in a written report to the Department head.

b. DEPARTMENTS

- Shall assume ownership and responsibility for implementation of this procedure. Illinois State University personnel are to be cognizant of the requirements established for implementation of this procedure.
- Will assure that the locks, tags and other devices required for compliance with lockout/tagout procedures are provided to their employees.
- Supervisors are to ensure that personnel assigned to perform work requiring a lock-out/tag-out are formally trained to do so and strictly comply with all requirements established in this procedure.

c. EMPLOYEES

- Employees performing work tasks covered by this lock-out/tag-out procedure are required to comply with the requirements set forth in this procedure.

3. DEFINITIONS

Affected Employee – an employee who is required to use machines or equipment on which servicing is performed under the Lockout Tagout Program or who performs other job responsibilities in an area where such servicing is performed.

Authorized Employee – a person who locks or tags out machines or equipment in order to perform work on that machine or equipment.

Energized- connected to an energy source or containing residual or stored energy.

Energy Isolation Device – a mechanical device that physically prevents the transmission or release of energy.

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

Lock-out – the placement of a lock-out device (usually a lock) on an energy isolating device to ensure that the energy isolating device and the equipment being controlled may not be operated until the lock-out device is removed.

Lockout Device- a device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolation device in a safe position and prevents the energizing of the machine.

Note: It is possible and, in fact, likely for an individual to be considered “qualified” with regard to certain equipment in the workplace, but “unqualified” as to other equipment.

Servicing and Maintenance- Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment.

Tag-out – the placement of a tag-out on an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tag-out device is removed. Note: Tag-out device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all environment-tolerant nylon cable tie.

4. TRAINING

- All affected employees must receive training on the purpose of this procedure to ensure they have a clear understanding of the meaning of equipment locks and tags, and that they are not to be altered in any way. This will typically be included in the new-hire safety orientation.

- All authorized employees must receive formal training on the requirements of this procedure so that they can effectively lock-out/tag-out equipment as needed, ensuring for safety of themselves and others who may be in the immediate area.
- The training will include the following:
 - How to recognize energy sources, the type and magnitude of the energy available in the workplace.
 - How to perform an equipment shutdown.
 - How to isolate equipment.
 - How to safely release stored energy to reach a zero energy state.
 - How to apply and remove lock-out/tag-out devices.
 - Procedures/requirements for over-ride removal of lock-out/tag-out devices.
- 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 to the Energy Control Procedure. Retraining shall also be provided when the annual inspection reveals, or whenever there is reason to believe that there are inadequacies in employees' knowledge or use of the energy control procedures.
- Documentation of all training is to be maintained by the employees' department.

5. ENERGY ISOLATING DEVICES (LOCKS/TAGS)

- Locks
 - Locks used for the purpose of isolating an energy source shall not be used for any other purpose. Locks must be individually keyed, and while in use, the key shall remain in the possession of the individual who placed the lock.
- Tags
 - Each tag must contain the **name, picture, and department** of employee locking out the equipment. Blank tags can be requested through the Environmental Health and Safety Department.
 - Only the individual tag holder may apply and remove his/her tag. [Note: In special cases, a non-picture tag may be utilized, and is to be requested by a supervisor from the Environmental Health and Safety Department.]

- Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 lbs. and having the general design and basic characteristics of being at least equivalent to a one-piece, all environment-tolerant nylon cable tie.

6. ISOLATION

- The supervisor should discuss the need for a lock-out/tag-out when special isolation conditions apply.
- The machine or equipment to be isolated shall be turned off or shut down using the procedures established for the machine or equipment.
- All energy sources that energize the piece of equipment to be serviced are to be identified and physically located.
- The employee is to lock out all energy sources involved by applying his/her lock and personal tag. De-energization may include, but not limited to, pulling a plug, opening a disconnect switch, removing a fuse, closing a valve, bleeding the line, or placing a block in the equipment.
- If an energy isolating device is not capable of being locked out, a tagout (alone) may be utilized. In these cases, additional safety measures should be used, such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization are required to be taken.
- If several people are needed to work on a piece of equipment, **each** person must apply their own lock/locks. This prevents any accidental start-ups while another employee may still be working on the machinery. In this case, employees will need to use a lockout hasp that accepts multiple locks.
- Each employee's lockout devices will be individually keyed.
- Live parts to which an employee may be exposed must be de-energized before the employee works on or near them.

Note: Only **qualified employees** may work on or in close proximity to electric circuits or equipment that has not been de-energized. Such persons must be capable of working on energized circuits and will be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials and insulated tools.

7. SAFE RELEASE OF STORED ENERGY

- Equipment is to be at "zero energy state" before servicing. All potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe i.e.

drain all valves, bleed off air from a system, and eliminate stored hydraulic pressure. In addition, you may need to use other safe method to release existing energy.

- Follow the equipment's maintenance manual where guidance is provided regarding release of stored energy.

8. VERIFICATION OF ISOLATION

- Following de-energization of the power source(s) and application of lock and tag, one should attempt to activate/operate the equipment to confirm that it has been de-energized. (Ensure all employees are secured away from equipment.)

9. REMOVING LOCKOUT TAGOUT DEVICES

- After servicing is finished, tools & material are to be cleared away and guards replaced.
- The area is to be cleared, as warranted, in case re-energization does not go as planned.
- All locks & tags and other isolation devices are to be removed.
- After lockout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout device(s) have been removed and the equipment is to be re-energized.
- The equipment is to be restarted, following the standard operating procedure for that piece of equipment.

10. EQUIPMENT CONNECTED VIA CORD AND PLUG

- Machinery/equipment where the only source of energy is from connection to an electrical outlet cord and plug shall be considered in compliance with lockout/tagout procedure if the following conditions are met:
 - The plug is removed from the electrical source.
 - The person servicing the equipment can be in control of the cord and plug at all times during the servicing.
 - All affected employees shall be notified of the equipment being serviced.
- An alternative means of compliance is to have a plug cap device in which lockout/tagout devices are affixed to the plug.

11. OVER-RIDE SAFETY LOCKOUT TAGOUT REMOVAL

- In the event that an employee cannot be reached to remove his/her personal lock and it is necessary to unlock the equipment.
- The following sequence of events should take place before the emergency removal of someone else's lock/tag.
- Attempt to determine the location of the employee and exhaust all reasonable efforts to have the lockout removed.
- If the employee is not on-campus, and cannot be located or is unable to report to the campus, a department supervisor (with knowledge of the equipment) should check the machine or process to be sure it is clear before removing the lock.
- The supervisor [who removes the lock(s)] is responsible for following all of the requirements for restoring power. (See "Removing Lockout and Tagout Devices")
- The supervisor will be responsible for contacting the employee ASAP to advise him of the removal of his lock & tag.

12. SHIFT CHANGE

- If the piece of equipment is locked out at shift change and the person on the next shift needs to service the piece of equipment, he/she must apply their lockout and tag before the employee leaves.

13. OUTSIDE CONTRACTORS

- Contractors are to follow a lock-out/tag-out procedure in full compliance with OSHA 1910.147.
- Each outside contractor working in areas on campus have been contractually informed that they are responsible for the safety of their employees.
- Contractors are to be informed that any de-energization of Illinois State University equipment is to be approved by the project manager or other responsible Illinois State University supervisory employee having project oversight responsibilities.
- Sometimes equipment under the control of Illinois State University is required to be locked out prior to a contractor working on the piece of equipment. The ISU lock/tag is to be applied first and removed last, after work is complete. The contractor must also apply their lock/tagout lock on the equipment and must verify the equipment is deenergized.

14. SPECIFIC PROCEDURES FOR INDIVIDUAL EQUIPMENT AND AREAS

All Illinois State University employees should follow their individual departmental Lockout Tagout Procedure/Programs. If your department does not have a procedure/program contact Environmental Health and Safety Department.

15. AUDITS

- The Office of Environmental, Health & Safety shall perform an annual audit of all Energy Control Programs. A written report shall be distributed to affected parties, outlining identified deficiencies.
- Departments will conduct periodic audits of their employees. The Periodic Inspection Form will be used. Anyone found not complying with this procedure will be required to go through retraining.

Lockout/Tagout Periodic Inspection Form

Shop/Department	
Name of Equipment and Location	
Date of Inspection	

Inspection Items	Yes	No
1. Are the steps in the Energy Control Procedure being followed?		
2. Do the involved employees understand their responsibilities?		
3. Are there any inadequacies in the employee's knowledge and abilities?		

Name of Employee(s) Being Reviewed	
1.	4.
2.	5.
3.	6.

Corrective Action- Use the space provided below to describe any problems identified during the inspection, along with a description of any corrective action needed. Appropriate action must be taken to ensure that the deficiencies are corrected. This may involve making changes to the procedure, providing retraining to employees, and/or taking additional steps to ensure compliance.

Inspected By
Name _____ Title _____

Signature _____



Facilities Services Lock Removal Form

General Information:	
Date & time of request to remove lock:	Work Unit or Department of lock owner:
Name of lock owner whose lock/tag is to be removed:	Name of lock owner's supervisor:
Equipment & Location:	
Is it absolutely necessary for the equipment to be reenergized before the lock owner can return to personally remove the lock? Yes No	
If "Yes", explain why:	
Document Reason for Removing Lock: (Lock owner called in sick, lock owner forgot to remove lock before leaving site, etc)	

Document attempts to contact lock owner prior to removal:		
Date & Time	Method of Attempted Contact	Result
@		
@		
@		

Lock Removal:	
<input type="checkbox"/> Verify that the lock will be removed by the supervisor of the lock owner or the supervisor's direct designee.	
<input type="checkbox"/> Verify that the supervisor of the lock owner or the supervisor's direct designee has reviewed the equipment to ensure that it can be safely reenergized.	
Lock removed by:	Date & Time of removal:

Notifications:	
<input type="checkbox"/> Verify that the OPP Safety Coordinator has been notified (i.e. via e-mail or phone call/message) of lock removal within 24 hours of removal.	
<input type="checkbox"/> Verify that the lock owner has been informed of lock removal prior to beginning their next shift.	

Supervisor Signature: _____ Date: _____