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## **Lockout/Tagout Policy**

### **Scope**

This policy applies to all employees engaged in the maintenance, repairing, cleaning, servicing, or adjusting of machinery or equipment on College property where the unexpected startup of the machines or equipment, or release of energy could cause injury to employees

### **Purpose**

To ensure that all individuals on the campus are protected from accidental or unexpected activation of mechanical and/or electrical equipment during maintenance, repairing, cleaning, servicing, or adjusting machinery or equipment.

### **Application**

Normal production operations are not covered by this policy unless: An employee is required to remove a guard or other safety device or is required to place any part of their body into the place of a machine where the work is being done.

This policy does not apply to equipment that can be unplugged and is under the exclusive control of the employee performing the servicing and maintenance nor does it apply to hot tap operations.

### **Energy Control Program**

The College has established a program consisting of energy control procedures, employee training, and periodic inspection to ensure that before any employee performs any servicing or maintenance on machines or equipment, the machine or equipment shall be isolated from the energy source and rendered inoperative.

#### *Lockout/Tagout*

1. If an energy isolating device is not capable of being locked out, a tagout system shall be used.
2. If an energy isolating device is capable of being locked out, a lock shall be used unless it can be demonstrated that the use of a tag will provide full employee protection.
3. After January 2, 1990, whenever replacement or major repair, renovation, or modification of a machine is performed, energy isolating devices for such machines shall be designed to accept a lockout device.
4. Whenever a tagout device is used it shall be attached at the same location that the lockout device would have been placed, and it shall be demonstrated that the tagout will provide a level of safety equivalent to that obtained by using a lockout.
5. In determining the level of safety, the College shall demonstrate full compliance with all tagout-related provisions of this policy together with additional elements 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.

#### *Energy Control Procedures*

1. Procedures shall be developed, documented, and utilized for the control of potentially hazardous energy. The procedures 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.
2. When the following conditions are met, energy control procedures are not required:
  - The machine has no potential for stored or residual energy
  - The machine 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
  - The machine is isolated from that energy source and locked out during servicing
  - A single lockout device will achieve a lockout condition
  - The lockout device is under the exclusive control of the authorized employee performing the servicing
  - The servicing does not create hazards for other employees
  - There have been no accidents involving the servicing of this machine

#### *Protective Materials and Hardware*

1. Locks, tags, chains, wedges, and other hardware will be provided by the College.
2. Lockout/tagout devices must be singularly identified and used.



3. Devices must be durable and able to endure the environment they are placed in; they shall be standardized as to color, shape, size, and print.
4. Devices must be identifiable as to who applied the lock and/or tag.

### *Periodic Inspections*

1. The energy control procedures will be inspected annually.
2. The inspection will be done by an authorized person other than the person utilizing the procedure.
3. The inspection will be used to correct deviations and inadequacies in the procedures.
4. Employees' responsibilities in the procedure will be an integral part of the inspection.
5. The College will certify that the periodic inspections have been performed. The certification shall identify the machine, the date of the inspections, the employees included in the inspection, and the person conducting the inspection

### *Training and communication*

1. The College will provide training to ensure that the purpose and functions of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees.
2. Training will occur at the time of initial assignment and anytime there is a change in the equipment or work site.
3. Each authorized employee will be trained in the applicable hazardous energy sources, type and magnitude of the energy available, and the methods for energy isolation and control.
4. Instruction will be given on the purpose and use of the energy control procedures.
5. All other employees impacted by the energy control procedure will be instructed about the procedure and the prohibition relating to attempts to restart machines that are locked or tagged out.
6. When tagout is used, employees must be told that they are warning and devices not physical restraints; tags must not be removed without authorization from the person responsible for it; tags must be legible and understandable; tags and their means of attachment must be made of materials which will withstand the environment; and they must be securely attached.

### *Retraining*

1. Retraining will be required when there is a change in job assignments, machines, and processes that present a new hazard.
2. Retraining will be required when inspections indicate that there are inadequacies or deviations in the employees' understanding of the energy control procedures.
3. Retraining serves to reestablish employee proficiency.
4. The College will keep records to show that employee training has been accomplished.

### **Application and Release of Control**

1. To prepare for lockout/tagout, the College must conduct a survey to locate and identify all isolating devices to be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked or tagged out. More than one energy source (electrical, mechanical, stored energy, or others) may be involved.
2. Affected employees must be notified that a lockout or tagout system is going to be utilized and the reason therefore. The authorized employee must know the type and magnitude of energy that the machine or equipment utilizes and must understand the hazards thereof.
3. If the machine or equipment is operating, the authorized employee will shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).
4. The authorized employee will operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
5. The authorized employee will lockout/tagout the energy isolating devices with assigned individual lock(s) or tag(s).
6. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, the authorized employee will operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating control(s) to neutral or off position after the test.



7. The equipment is now locked out or tagged out.
8. After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.
9. After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lockout or tagout devices. Operate the energy isolating devices to restore energy to the machine or equipment.
10. In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout/tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.
11. Where maintenance, repairing, cleaning, servicing, adjusting, or setting up operations cannot be accomplished with the prime energy source disconnected, such operations may only be performed under the following conditions:
  - a. The operating station (e.g. external control panel) where the machine may be activated must at all times be under the control of a qualified operator.
  - b. All participants must be in clear view of the operator or in positive communication with each other.
  - c. All participants must be beyond the reach of machine elements which may move rapidly and present a hazard.
  - d. Where machine configuration or size requires that the operator leave the control station to install tools, and where there are machine elements which may move rapidly if activated, such elements must be separately locked out.
  - e. During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

### Additional Requirements

- Testing of Machine – In situations where lockout/tagout devices must be temporarily removed from the energy isolating device and the machine energized to test or position the machine, the following actions shall be followed: clear the machine of equipment and tools; remove employees from the machine; remove the lockout/tagout; energize and proceed with the test; de-energize all systems; and reapply energy control measures.
- Outside Contractors – Whenever outside personnel are engaged in activities covered by this policy, the College supervisor and the outside contractor shall inform each other of their respective lockout/tagout procedures. The College supervisor shall ensure that their employees understand and comply with the restrictions of the outside contractor's energy control program.
- Group Lockout/Tagout – When servicing is performed by a group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lock or tag.
- Shift or Personnel Changes – Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of lockout/tagout protection, including the orderly transfer of lockout/tagout device protection between off-going and oncoming employees to minimize exposure to hazards from the unexpected energization of the machine.

### Authorized Personnel

- Mechanical Trades Technicians
- Mechanical Trades Supervisor
- Carpenters
- Grounds staff
- Mechanic
- Building Trades and Grounds Supervisor
- Director of Facilities Management
- Faculty members in Physics & Engineering, Theatre, and Art

### Responsibilities

1. Employees
  - a. Follow proper lockout/tagout procedures when necessary



- b. Contact supervisor if additional lockout/tagout devices are needed
- 2. Supervisors
  - a. Ensure that each employee engaging in work requiring locking/tagging out of energy sources understands and adheres to adopted procedures
  - b. Assure that employees have received training in energy control procedures prior to operating the machinery or equipment
  - c. Provide and maintain necessary equipment and resources, including accident prevention signs, tags, padlocks, seals and/or other similarly effective means
- 3. Risk Management
  - a. Ensure that the lockout/tagout procedures are in compliance with OSHA requirements
  - b. Inspect energy control procedures and practices annually to ensure that general and specific lockout/tagout procedures are being followed
  - c. Ensure training occurs when necessary to employees affected by lockout/tagout procedures
- 4. Human Resources
  - a. Maintain training documentation

### **Evaluation**

The Safety Committee shall be responsible for evaluating this policy annually.

### **Document History**

Created: 11/2006

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