# Lockout/Tagout Policy

1. **Introduction**
   a. Locking and tagging out equipment safeguards those working on the equipment from being injured by its being unexpectedly energized or releasing stored energy. This document describes the acceptable procedures on the Manchester College Campus for locking and tagging out equipment. It summarizes the applicable requirements for lockout/tagout procedures, and is intended to help campus departments comply with applicable OSHA regulations.

2. **Definitions**
   a. **Affected person:** Any person whose job requires that he/she operates or uses a piece of equipment on which maintenance or service is being performed; or whose job requires that he/she works in the area of the equipment; or any person in close proximity to the equipment.
   b. **High pressure steam:** Steam under pressure of more than 20 pounds per square inch.
   c. **Lock:** A keyed padlock with two keys: one in the possession of a qualified worker and the other retained by the head of the department. The lock is to be identified for use by a specific worker.
   d. **Primary voltage:** Voltages of 7200 volts A. C. or more to ground.
   e. **Qualified worker:** A worker who has demonstrated by experience or training that he/she understands the operation of the equipment and can safely service or repair the equipment.
   f. **Tag:** A printed or handwritten document that clearly indicates a device is not to be operated, who tagged out the equipment, and the time and date the equipment was tagged out. The tag should be made of appropriate material for the environment in which it is used.

3. **What This Policy Covers**
   a. This Policy applies to all work on the Manchester College campus involving the installation, service, maintenance, adjustment, or other handling of machines, powered equipment, or utility systems where the unexpected energizing of the equipment or a release of stored energy could cause injury or death. Potentially hazardous energies covered by this policy include electrical, mechanical, hydraulic, pneumatic, chemical, and thermal energies.
   b. Work on or around powered equipment is covered by this policy if:
      i. A person may contact electrified or otherwise energized components while performing the work.
      ii. A person is required to remove or bypass any guard, interlock, or other safety device (including equipment covers) to perform the work.
      iii. A person is required to place any part of his/her body into an area on the machinery or piece of equipment where work is performed during the equipment's operation.
   c. Examples of activities covered by these procedures include but are not limited to unjamming a printing press, adjusting the internal electronics of a piece of equipment, repairing boilers, repairing high voltage electrical service equipment, and changing the fan motor on an air handling unit.

4. **Work Not Covered**: This Policy does not apply to:
   a. Minor tool changes and adjustments and other minor service activities that take place during normal operations if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternate measures that provide effective protection. (An example of this would be changing a drill bit on a drill press.)
   b. Work on electrical equipment that is connected by a cord and plug where the hazard of the equipment being accidentally turned on or releasing stored energy is eliminated by unplugging the equipment. The person working on the equipment must have exclusive control over the plug.

c. Work on equipment that cannot be shut down, provided that:
   i. department management demonstrates that continuity of service is essential,
   ii. shutdown of the system is impractical, and
   iii. special equipment is provided or special protective procedures are used that will provide effective protection for personnel. (Examples include work on electrical circuits supplying network computer equipment or work on utility lines.)

5. **Who Should Follow This Policy**
   a. All Manchester College faculty, staff, and students who install, adjust, service, or maintain machines, powered equipment, or utility systems must comply with the policy and procedures in this document.
   b. Contractors are required to adhere to these procedures for work on Manchester College-owned equipment. The contractor's equivalent procedures may be applied to work on their own equipment.

6. **Responsibilities**
   a. **Department Chairs/Directors**:
      i. It is the responsibility of each department chair/director (hereafter referred to as "department head") to implement this policy in their respective department, and to provide lockout/tagout training. Department heads are also to provide funds for and make sure proper lockout/tagout equipment is provided to supervisors. Furthermore, it is the responsibility of the department head to provide lockout/tagout training for workers who could be injured by accidentally energized equipment or equipment that could release stored energy.
   b. **Supervisors:**
      i. It is the responsibility of each supervisor to issue the necessary lockout/tagout equipment to each of his/her workers. The supervisor is also responsible to see that the worker is qualified for the assigned job and follows the lockout/tagout procedures outlined in this document. He/she is also to make sure that the worker can apply and does apply the lockout/tagout equipment properly.
      ii. It is the responsibility of the supervisor to periodically review the procedures and equipment for inadequacies. If inadequacies in procedure or equipment are found, the supervisor shall draw them to the attention of the department head with recommendations for changes.
   c. **Qualified Worker:**
      i. It is the responsibility of each qualified worker to use lockout/tagout procedures and equipment as outlined in this document. He/she is also to inform his supervisor of the lack or loss of any of his/her lockout/tagout equipment.

7. **Lockout Procedure**
   a. All affected persons are to be notified that the equipment will be off and locked out.
   b. All energy sources for the equipment should be identified.
   c. The equipment shall be shut off or otherwise de-energized, being careful to de-energize all energy sources. This includes all valves, switches, breakers, or other controls that supplies energy to the equipment. In the case of mechanical energy, a block may be used to stop the release of stored energy.
   d. A lock is to be placed on each energy source disconnect or energy release block.
      i. The lock is to be placed directly on the equipment if provided with an integral lockout device.
      ii. If there is no integral lockout device on the equipment, securely attach an independently manufactured lockout device on the equipment and then place the lock on the lockout device.

iii. If none of the above is possible, use the tagout procedure.

e. A tag to be secured to the lock indicating that the equipment is not to be energized and who owns the lock.

f. It should be verified that the lockout does prevent the release of energy.

8. **Tagout Procedure**

a. This procedure is to be used only if it is not reasonable to use the lockout procedure.

b. All affected persons are to be notified that the equipment will be off and tagged out.

c. All energy sources for the equipment should be identified.

d. The equipment shall be shut off or otherwise de-energized, being careful to de-energize all energy sources. This includes all valves, switches, breakers, or other controls that supplies energy to the equipment. In the case of mechanical energy, a block may be used to stop the release of stored energy.

e. Securely place a tag on each energy source disconnect or energy release block.

9. **Authorization to Work on Energized Equipment**

a. College staff may oversee or perform work on energized equipment such as described in this document only if they are qualified for the work. Supervisors are to determine who is qualified to work on energized equipment. Only the supervisor may authorize work on energized equipment.

10. **Record Keeping**

a. **Training:** Records of lockout/tagout training are to be kept by the department head. These records should include the date, the name of the worker, and the name of the instructor.

b. **Locks:** Records of lock assignment are to be kept by both the department head and the supervisor.

c. **Lockout/Tagout Equipment:** Records of lockout/tagout equipment assigned to a worker are to be kept by the supervisor.

11. **Removal of a lockout or tagout**

a. Lockout/tagout equipment must be removed by the worker who placed it.

b. Before the removal of a lockout/tagout the following must be completed:

i. Removal of all non essential items.

ii. Check to see that all workers and bystanders are located in a safe position.

iii. Inform all affected personnel.

c. If the worker who applied the lockout/tagout is not present, and his supervisor deems it necessary to energize the equipment, the following must be done by the supervisor:

i. Verify that the worker is not on campus.

ii. Make all reasonable effort to contact the worker.

iii. Determine the purpose of the lockout/tagout, and whether it is safe to operate the equipment in its current condition.

iv. Remove all non essential items.

v. Inform all affected personnel.

vi. Check to see that all affected persons are located in a safe position.

vii. Inform the worker of the lockout/tagout removal before the worker starts to work for his/her next shift.

12. **Protecting More Than One Worker**

a. When more than one person works on the same equipment, multiple lockout devices must be used. Each qualified worker must put his/her lock on the multiple lockout device and remove it when he or she stops working on the equipment. Only when all locks are removed can the equipment be re-energized.

13. **Special Considerations**

a. **Primary Voltages**:

i. Lockout/tagouts applied to primary voltage electrical equipment should be considered a special situation. It is to be considered a special situation because:

(1) All work should be done in pairs on primary voltages since many of the work areas are confined spaces;

(2) safety jumpers are applied to ensure safety by grounding normally energized equipment;

(3) draining energy from capacitors is normally required.

ii. Only an electrician with qualifications in working with primary voltages should place or remove these lockout/tagouts. If a supervisor must remove a lockout/tagout on primary equipment, he/she should follow the procedures outlined for removal of a lockout/tagout, with the help and advice of another electrician qualified to work with primary voltages. This may mean using an employee of the electric utility company if no other qualified electricians are on campus.

b. **Boilers and High Pressure Steam**

i. Lockouts/tagouts should only be placed or removed by workers that are licensed for the operation of the boilers. The exception would be in the case where an electrician is asked to make an electrical repair on a boiler. In this case he/she may place and remove his/her lockout/tagouts, but may not start the boilers without a licensed boiler operator being present or his/her being qualified to operate the boiler.

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