Approved: 8/23/95

City of Lincoln
Lockout/Tagout Policy

PURPOSE

This policy outlines lockout/tagout requirements as per OSHA's "Control of Hazardous Energy Sources" standard (29 CFR 1910.147) for identifying hazardous energy sources, safe shutdown and startup, and isolation and dissipation of hazardous energy. Lockout/tagout covers repair and maintenance of all machines and equipment in which unexpected start-up or release of stored energy could cause injury. This policy will insure that machinery or equipment are isolated from all potentially hazardous energy and locked/tagged out before employees perform any servicing or maintenance activities where the unexpected energization, startup, or release of stored energy could cause injury. For the purpose of this policy, "energy source" is defined as, "any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other type of energy." It is the intent of this policy that only qualified persons should perform electrical work, in compliance with the City of Lincoln Electrical Code. In most instances, a qualified person will be licensed when performing electrical work.

OBJECTIVES

I. To establish minimum requirements for the safe lockout/tagout of energy isolating devices.

II. To ensure that all employees are protected from potentially hazardous energy when performing service or maintenance activities.

The potential for serious injury or fatalities exist for all employees working with or around powered equipment, including all mobile equipment. The proper use of lockout/tagout procedures eliminates the risk of accidental contact with direct or stored energy when operating or maintaining this equipment. Although each employee is primarily responsible for their own safety, in all instances where conditions are not covered by this policy, or the job is not completely understood, the employee shall obtain specific instructions from their supervisor before proceeding with the work.

RESPONSIBILITY

Department Heads Have the Responsibility to:

I. Implement this lockout/tagout policy by:

A. Directing all supervisors to identify activities where lockout/tagout should be used, and to identify employees this may affect.

B. Informing all affected employees of the impeding utilization of the lockout procedures.
Make it known to all employees:

1. Which equipment is to be locked out.
2. Why it is locked out and all hazards involved.
3. Who is affected.
4. Approximately how long this procedure will be in effect.

C. Ensuring that all necessary equipment is available to comply with this

II. Enforce compliance with this policy. All appropriate employees, presently employed and new employees, must be trained and responsible for the purpose and the use of this lockout/tagout policy.

Supervisors Have the Responsibility to:

I. Identify those areas or equipment where lockout/tagout can be used. Make a thorough survey to locate and identify all equipment or other sources of energy that might accidentally or inadvertently start-up and cause injury to personnel. Find switches, locks or other safety devices for this specific equipment. More than one machine or energy source may be involved, so a complete investigation is required.

II. Train all personnel in the location of the areas listed with the appropriate use of the lockout/tagout equipment.

III. Provide necessary equipment to properly perform lockout/tagout.

IV. Enforce compliance with this policy.

Employees Have the Responsibility to:

I. Understand their assigned tasks relating to lockout/tagout.

II. Comply with the directives of this policy.

III. Advise supervisors as to the need for lockout/tagout equipment.

IV. Maintain lockout/tagout devices and padlocks in good working condition.

V. Refrain from starting, energizing, or using that machine or equipment which has been observed to be locked or tagged out.

Risk Management Has the Responsibility to:

I. Assist each department in selecting an appropriate procedure of energy isolation if questions arise as to the proper means of control.

II. Train appropriate supervisors and assist in the training of employees in the City's lockout/tagout policy.

III. Audit each department's compliance with this policy on an annual basis.

APPLICATION

1. Residual energy should not be overlooked. Locking out a switch or turning off the power does not guarantee safety. Trapped air, gas, or chemicals, coiled springs, blocked or raised loads, and elevated machine parts must be bled, released or blocked.

2. The person who applies the lock must be the ***only one who removes it.*** No lockout/tagout device may be removed or cut by a person other than the one who originally installed the device, unless removal is authorized by the appropriate supervisor. The appropriate supervisor shall be the immediate supervisor of the employee who placed the lock and performed, or is performing, the designated work.

3. Before equipment restart, a thorough safety check must be performed. Survey the scene to make sure that all employees are at a safe distance. Verify the reinstallation of all safeguards to ensure that no tools or obstructions have been left inside the equipment. Double-check all switches, valves, and controls to ensure that they are in the "off"

position. In addition, all necessary personal protective equipment must be worn (hard hat, goggles, etc.).

4. To insure continuity of lockout/tagout protection during shift or personnel changes, an authorized employee will oversee the removal of all outgoing employee's lockout or tagout devices and the application of all oncoming employee's lockout or tagout devices.

5. Under this policy, when a device can be locked out, ***it must be locked out.*** The only exception to this is if it can be demonstrated that tagout provides the same degree of employee protection as lockout. In that case, tagout may be used.

6. Under this policy one may use both lockout and tagout when performing repairs on equipment. The tag should describe why the equipment is locked out, how long it will be locked out, and who locked it out. If there is any doubt, contact your supervisor or Risk Management. If tagout is used, it must be noted that there are limitations to tagouts. They do not provide a physical restraint, and are only warning devices. Unless their meaning is clearly understood, tags may provoke a false sense of security.

7. Employees may not remove, bypass or ignore tags without proper authorization. Failure to comply with this will result in disciplinary action. Tags must be legible and readily understood. Both tags and their means of attachment must withstand hostile environmental conditions and be securely attached.

LOCKOUT SEQUENCE:

1. Notify all affected employees that servicing or maintenance is required on a machine or piece of equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

2. Authorized employees shall refer to the equipment manuals to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.

3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open switch, close valve, etc.).

4. Operate any switches, valves, or other energy isolation devices so that the equipment is effectively isolated from any energy source. All stored energy from springs, rotating flywheels, elevated machinery members, hydraulic systems, air, gas, steam or water

pressure, or any other energy source must be dissipated or restrained by repositioning, blocking, bleeding or otherwise to prevent the release of the energy.

5. Using the appropriate locks and tags, lock the equipment and attach a clearly labeled tag completed in detail.

6. After ensuring that no personnel are exposed, test all switches and operating controls to confirm that the equipment cannot be either accidentally or deliberately operated. Test for the absence of energy sources. Make sure equipment, instruments, or meters, used to test for the absence of energy, are working properly by testing them on a known source. After testing, make sure all controls are in the "neutral" or "off" position before continuing.

RESTORATION:

1. After all servicing operations are complete, verify that no one is exposed to the start-up of equipment. Check to see that all tools have been removed, and the guards have been reinstalled.

2. Notify all affected employees of the ending of the lockout, and the impending start-up of the affected equipment.

3. Remove locks and tags.

4. Start-up equipment, if necessary.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

Procedure for more than one employee:

In addition to the preceding steps, if more than one individual is working on the same equipment, ***all are required to lockout equipment.*** Each shall place his or her own personal lockout device on the energy isolating device or devices. When an energy isolating device cannot accept multiple locks or tags, a multiple lockout device shall be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in the lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his or 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 or her lock from the box or cabinet.

Procedure for outside personnel (contractors, etc.):

The onsite employer and the outside employer must inform each other of their respective lockout/tagout procedures. Each employer must ensure that his/her personnel must understand and comply with all restrictions and/or prohibitions of the other employer's energy control program.

ELECTRICAL HAZARD PREVENTION

Hazard prevention is a key part of each employee's duties around electric power lines. Hazards include possible contact with bare, uninsulated or energized electrical components, and grounding fault. Pre-job safety planning is the greatest accident preventative in the work place.

Points to Remember:

1. Understand the work in progress. ***Preplan for safety!***

2. Do not touch any equipment operating near power lines or exposed to high or low voltage.

3. Use caution when carrying any long pieces of pipe, steel, survey equipment, or wood in the vicinity of overhead or energized lines.

4. Maintain a 10 foot distance from lines.

5. Consider requesting that lines be de-energized.

6. "Faulted circuits" may automatically be re-energized several seconds later. Victims may be re-shocked and rescuers endangered.

7. Understand what lockout/tagout includes when it applies to your work.

8. Power line contact kills or seriously injures hundreds of construction equipment operating personnel each year. Many of these victims were aiding the operation at the time of contact.

9. Look for applications and use the "danger zone" (marker tape, fences, and barriers) concept.

10. If a vehicle or piece of equipment you operate does make contact with an energized electrical line or component, your safest course of action will usually be to remain on the equipment until it is de-energized. If you must dismount, it is critical that you not touch the vehicle and the ground at the same time.

11. An equipment grounding program to check for grounding faults and equipment damage, is important, on a regular basis, with electrical extensions and equipment.

DEFINITIONS APPLICABLE TO THIS PROCEDURE

Affected Employee -An employee whose job requires he/she to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout or whose job requires he/she to work in an area in which such servicing or maintenance is being performed.

Authorized Employee-A person who locks or implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same when the affected employee's duties also include performing maintenance or servicing on a machine or equipment which must be under lockout/tagout.

Capable of Being Locked Out-An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

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

Energy Isolating Device-A mechanical device that physically prevents the transmission or release of energy. Push buttons, selector switches and other control circuit type of devices **are not** energy isolating devices.

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

Hazardous Energy-The unexpected release of energy or "stored" energy upon machines or equipment which could cause injury to employees.

Lockout-The placement of a lockout device on an energy isolating device in accordance with an an established procedure ensuring that the device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device-A device that utilizes a positive means such as a lock, key or combination to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

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

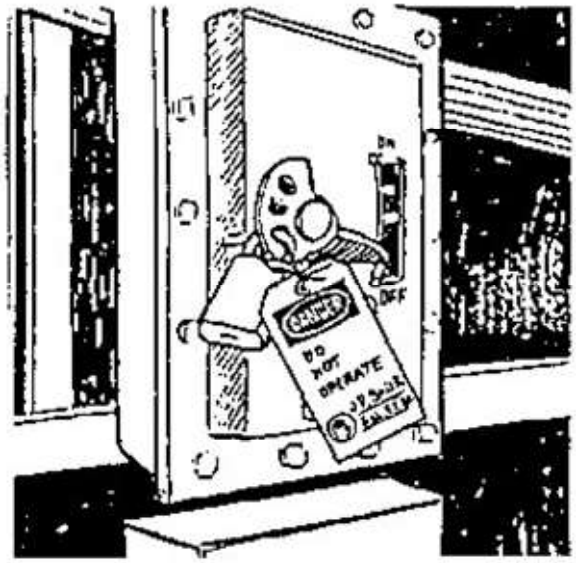
Tagout-Placement of a tagout device on an energy isolating device in accordance with an established procedure to indicate that the energy isolating device and the equipment being controlled may not be operated until a tagout device is removed.

Tagout Device -A prominent warning device such as a tag and a means of attachment which can be securely fastened to an energy isolating device in accordance with an established procedure to indicate that the energy isolation device and the equipment being controlled may not be operated until a tagout device is removed.

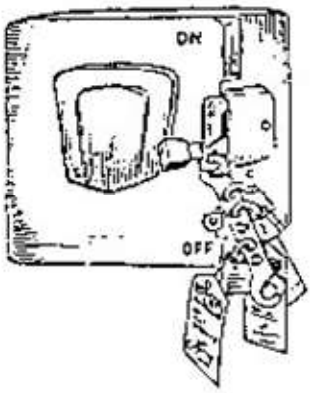
Questions concerning this policy will be addressed by:

Risk Management
233 South 10th Street
Lincoln, NE 68508
441-7671

EXAMPLES OF LOCKOUT/TAGOUT APPLICATIONS



Lock and tagout power at the main control box.



Use a hasp to accommodate more than one lock at a multi-employee work site.

Figure 2

Other examples where lockout/tagout devices are needed:

1. On electric breaker boxes.

2. On boiler steam valves.

3. On forklift control switches.
4. On sump pump power controls.

5. On out-of-service vehicles and equipment.

6. On water control or gate valves.

7. On mechanical equipment and tools.

8. On all hoist and overhead crane equipment.

9. On all machinery being repaired.

10. On work with any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other type of energy.