Chapter 8
Lockout/Tagout

8-1. General

Lockout/Tagout procedures are designed to prevent accidents and injuries caused by the accidental release of hazardous energy. The lockout/tagout standard covers servicing and maintaining equipment where unexpected energization of equipment could injure employees. Energy sources include: electrical, mechanical, pneumatic, fluids and gases, hydraulic, thermal, and water under the pressure of gravity. Isolation of these energy sources might include repair and replacement work, renovation work and modifications or other adjustments to power equipment. Hazardous energy problems include: accidental start-ups, electrical shock, and disabling injuries and death.

8-2. Responsibilities

a. Installation Safety Office will:

(1) Serve as principle staff adviser and technical consultant.

(2) Conduct periodic inspections to ensure each activity is in compliance with this regulation and other Army and Federal policies governing lockout/tagout of machines, equipment, or electrical panels.

b. Activity commanders/directors will:

(1) Ensure lockout/tagout SOPs are developed, established, and implemented in each workplace as required, ensuring that consultation and bargaining obligations with the local union are met prior to implementation.

(2) Ensure authorized personnel responsible for performing lockout/tagout procedures are identified in activity SOPs, such as supervisors, line supervisors, operators, maintenance personnel.

(3) Ensure all machinery and equipment are listed in each section's lockout/tagout SOP.

c. Supervisors will:

(1) Establish lockout/tagout SOP isolating equipment/machinery at the energy source.

(2) Train affected employees in the purpose and use of the lockout/tagout procedures upon orientation and conduct annual refresher training. Document training sessions, to include individuals' signatures.

(3) Train authorized employees in performing lockout/tagout procedures.

(4) Ensure authorized employees perform lockout/tagout procedures as required.

(5) List all machinery and equipment in the lockout/tagout SOP.

(6) Obtain required lockout/tagout devices to isolate equipment/machinery in workplace.

(7) Assign required lockout/tagout devices to authorized personnel.

8-3. Requirements

a. Directors, commanders, and supervisors responsible for machinery and equipment will establish a lockout/tagout SOP. See figure 8-1 for a sample SOP. Procedures will be developed for each type of equipment.

b. Employees shall be instructed in the safety significance of the lockout/tagout procedure. Each new or transferred-affected employee and other employees whose work operations are or may be in the area shall be instructed in the purpose and use of the lockout or tagout procedure of affected employees, such as operators of equipment.

c. Authorized personnel, such as line supervisors and maintenance personnel, shall be trained on the lockout/tagout procedures to isolate energy from the machinery and equipment.

d. Inventory of equipment that requires lockout/tagout procedures shall be included in lockout/tagout SOP.

e. Leaders/supervisors/commanders will ensure that subordinates are required to lockout and tag the main source of power before any maintenance, inspection, cleaning, or contact with machinery, equipment or systems that have potential to cause injury or death.

f. The lockout will be by means of padlocks, blank flanges, and padlock with chains, or similar devices that physically prevent reactivation of a main power source.

g. Individuals required to use locks and tags will be issued a personal lock and key. To eliminate the chance of unauthorized lock removal, duplicate keys will not be provided.

h. The lockout device will be accompanied by a "Danger" tag that has the installer's full name, shop, telephone number, and date of installation.

i. In any instance where physical lockout of the main power source is not possible, a "watch stander" must be located at the control device during work efforts.

LOCKOUT/TAGOUT
STANDARD OPERATING PROCEDURE

1. Purpose. To establish procedures for lockout/tagout to safely isolate equipment and machinery in accordance with Fort Lee policy and 29 CFR 1910.147.

2. Responsibilities.

a. Supervisor. List supervisors' responsibilities.

b. Affected employees. Identify affected employees; carpenters, mechanics, plumbers, craft shop customers, and list responsibilities.

c. Authorized employees. Identify authorized employees and list responsibilities.

NOTE: Affected employees and authorized employees maybe the same person. Also, supervisors and authorized employees may be the same person.

3. Policy. Lockout/tagout procedures will be used on the following machinery/equipment whenever adjusting, servicing, or performing maintenance. List machinery or equipment; band saws, mortising machine, drill press, table saw, grinders, lathes, presses, shapers, etc.

4. Procedures. List general procedures in this section. When more than one type of machinery/equipment is operated, list procedures for each type in the appendix of the SOP.

Figure 8-1. Sample lockout/tagout standard operating procedure

8-4. Procedures

a. Make a survey to locate and identify all isolating devices to be certain which switches, valves or other energy-isolating devices apply to the equipment to be locked or tagged out. More than one energy source, electrical, mechanical, or others, may be involved.

b. Sequence of lockout or tagout system.

(1) Notify all affected employees that a lockout or tagout system is going to be utilized and the reason why. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.

(2) If the machine or equipment is operating, shut it down by normal stopping procedure, such as depress stop button, open toggle switch, etc.

(3) Operate the switch, valve, or other energy-isolating devices so that the equipment is isolated from its energy source. Stored energy, such as in springs, elevated, machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, and etc.

(4) Lockout and/or tagout the energy-isolating devices with assigned individual lock or tags.

(5) After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. Caution: Return operating controls to "neutral" or "off" after the test.

(6) The equipment is now locked or tagged out.

c. Restoring machines or equipment to normal production operations.

(1) After the servicing and/or maintenance are complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.

(2) 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.

d. *Procedure involving more than one person*. In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place their own personal lockout device or tagout device on the energy-isolating device. When an energy-isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) 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 their own lock to secure the box or cabinet which allows the use of multiple locks to secure it. As each person no longer needs to maintain their lockout protection, that person will remove their lock from the box or cabinet.

e. *Basic rules for using lockout or tagout system procedure*. All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device where it is locked or tagged out.