

Safety Manual Chapter 15

Lockout/Tagout - Issue Date 4/97

15-1 Introduction

- **15-1.1** This procedure establishes the minimum requirements for the lockout or tagout of energy isolating devices. Lockout is the preferred method of isolating machines or equipment from energy sources. It shall be used to ensure that the machine or equipment is isolated from all potentially hazardous energy, and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energizing, start-up, or release of stored energy could cause injury.
- **15-1.2** All Facilities Planning and Management (FPM) and Contractors' employees shall be instructed in the safety significance of the lockout/tagout procedure.

15-2 Preparation for Lockout/Tagout

- **15-2.1** Make a survey to locate and identify all isolating devices to be certain which switch, valve, 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.

15-3 Sequence of Lockout/Tagout System Procedure

- **15-3.1** Notify the Project Coordinator associated with the work being performed. Advise all affected employees that a lockout or tagout system is going to be utilized and the reason for the procedure. The Project Coordinator shall maintain a Lockout and Tagout log to track the Lockout and Tagout work. The contractor's employees shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the potential hazards.
- **15-3.2** If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.). Do not shut down with side- arm type disconnect switch on unit, unless there is an emergency.
- **15-3.3** Operate the switch, valve, or other energy isolating device so that the equipment is isolated from its energy source. 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.
- **15-3.4** Lockout and/or tagout the energy isolating devices with assigned individual locks or tags.
- **15-3.5** 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" POSITION AFTER THE TEST.****

- **15-3.6** The equipment is now locked or tagged out.

15-4 Restoring Machine or Equipment to Normal Operations

- **15-4.1** After the servicing and/or maintenance is complete and equipment is ready for normal operations, check the area around the machines or equipment to ensure that no one is in danger.
- **15-4.2** 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 circuit breaker to restore energy to the machine or equipment.

15-5 Procedure Involving More Than One Person or Craft

- **15-5.1** In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his or her 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. Each employee will then use his/her own lock to secure the multiple lockout device.

15-6 Guidelines For Using Lockout or Tagout System Procedure

- **15-6.1** All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel or property damage. Do not attempt to operate any switch, valve, or other energy isolating device when it is locked or tagged out.
- **15-6.2** Each FPM and Contractor's' employee shall be assigned individual locks. Each lock will have two keys, one key for the employee and one key which will be in a cabinet in his/her departmental office. Each lock will be identified in a unique manner.
- **15-6.3** In the event that locked out or tagged out equipment must be operated, every effort must be made to locate the person who locked his/her lock on the lockout device. The foreman or supervisor of the employee who placed his/her lock on the equipment will be notified. The supervisor will be responsible for deciding if the employee is not on the campus or cannot be located to use the spare shop key to personally unlock the lock, and notify the employee of his action as soon as possible. The employee shall have the responsibility of checking his or her lock or tag before resuming work after an absence.

**** NOTE **** Each supervisor will be responsible for instructing his/her crew in the implementation of this procedure and for its enforcement.