

UNIVERSITY OF ALASKA FAIRBANKS SAFETY SYSTEM POLICY AND PROCEDURE

DOCUMENT NUMBER: 803
ISSUE DATE: SEPTEMBER 1996
SUBJECT: Lockout and Tagout Procedures

LOCKOUT AND TAGOUT PROCEDURES

PURPOSE: This procedure establishes minimum requirements for lockout and tagout of energy isolation devices. It shall help to ensure that machines and equipment are isolated from all potentially hazardous energy before employees perform any servicing or maintenance activities where unexpected energizing, start up, or release of stored energy could cause employee injury.

OBJECTIVE: The University of Alaska Fairbanks (UAF), in its continuing effort to provide employees with safe, healthful working conditions, and to comply with Occupational Safety and Health Act Standard 1910.150, is implementing the following procedures for locking out and tagging out machinery and equipment.

SCOPE: This policy applies to all UAF employees, students, faculty, staff, and outside contractors working on UAF equipment who work with, or are around, potentially hazardous energy.

I. RESPONSIBILITIES

A. UAF Environmental, Health, Safety, and Risk Management (EHS&RM) Department

EHS&RM shall provide training to all UAF employees who are authorized to lockout and tagout machinery and equipment.

B. Physical Plant/Power Plant

The UAF Physical Plant and Power Plant shall determine what necessary procedural steps are to be taken for shutting down, isolating, blocking and securing machines and/or equipment to control hazardous energy.

C. Supervisors

Supervisors shall keep a list of names and titles of employees authorized to lockout and tagout machinery.

II. GENERAL

This procedure covers the servicing and maintenance of machines and equipment in which the unexpected energizing, or start up of machines and equipment, or release of stored energy could cause injury to employee(s).

This standard applies only to the control of energy during servicing and/or maintenance of machines and equipment. Normal operations are not covered by this standard.

III. EXCEPTIONS TO THE PROCEDURE

Work on cord and plug connected electric equipment, for which exposure to the hazards of unexpected energizing, or start up of the equipment, is controlled by the unplugging of the equipment from the energy source and by the plug being under exclusive control of the operator performing servicing or maintenance.

IV. APPLICATION

An employee whose job requires him or her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout and/or tagout; or whose job requires him or her to work in an area where servicing or maintenance is being performed.

NOTE: Those applicable employees who are affected must attend lockout and tagout safety training programs.

V. AUTHORIZED EMPLOYEE

A person who is trained and knowledgeable in lockout and tagout procedures, who locks out or implements a tagout system on machines or equipment to perform the servicing or maintenance, on that equipment. This individual may be the same person whose duties include performing maintenance on the machinery or equipment.

VI. LOCKOUT

An energy isolating device will be considered to be capable of being locked out if it's designed with a hasp, other attachment; or integral part to which, or through which, a lock can be affixed; or if it has a locking mechanism built into it. Other energy isolating devices will also be considered to be capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device.

Actual lockout is placement of a locking device on an energy source ensuring that the energy isolating device and the equipment cannot be operated until the locking device is removed.

VII. TAGOUT

OSHA has approved tagout devices, in place of lockout devices, on machines and equipment which are incapable of accepting a lock.

Tagout devices **SHALL NOT** be used on machines or equipment unless authorization is obtained from EHS&RM prior to tagging out. Tagout devices shall be signed and include a legend, such as: **DO NOT START, DO NOT OPEN, DO NOT ENERGIZE, DO NOT OPERATE, etc.**

Tagout devices shall be attached at the same location that the lockout device is normally placed. Tagout devices must be installed with wire and/or nylon straps, which will withstand a 50 pound pull test.

VIII. PROCEDURE

A. Employees in an area where machinery or equipment is to be shutdown, shall be notified by their supervisor or an authorized person. Notification shall be given prior to shutdown and again before start-up.

B. Only an authorized employee with the knowledge of the type and magnitude of energy, the hazards of the energy to be controlled and the method or means to isolate that energy, shall be allowed to lockout and/or tagout machinery or equipment.

C. Identify energy sources which must be lockout and/or tagout; i.e., electrical, compression, hydraulic, pneumatic, chemical, gravitational, etc.

1. ELECTRICAL

a. Shut down machines and/or equipment as you normally would.

b. Shut down electrical disconnects for machine, or equipment, that is being worked on.

NOTE: When shutting down or re-starting power disconnect to the "off" (open), or "on" (closed) position, stand to the side of the disconnect, face turned away, before disengaging, or engaging, switch lever.

c. Place lockout and/or tagout device on disconnect. If a lockout device is used, secure a danger tag to it with your name, date, and department. If more than one employee will be working on the machine, or equipment, each must place their own lockout or tagout device on the machine, or equipment. Multiple lockout devices will be used; when more than one employee is working.

Remember: ONE PERSON - ONE LOCK - ONE TAG - ONE KEY

d. Test the controls of the machine or equipment to be sure that all power has been disconnected.

2. COMPRESSION

Release energy from springs that may still be compressed, then lockout or tagout.

3. HYDRAULIC AND/OR PNEUMATIC

Locate sources of energy for hydraulic and/or pneumatic equipment. Bleed off energy by opening valves, closing air lines, then lockout and tagout each valve supplying this energy.

4. CHEMICAL

Locate valves supplying chemicals to machinery or equipment, shut them off, and place lockout or tagout device on valves.

NOTE: When working with chemical supplied equipment, purge the system so adequate ventilation is provided. Also, use personal protective equipment.

5. GRAVITATIONAL

a. Secure all parts of machinery or equipment.

b. Use a die block at the point of operations to prevent the ram from falling.

D. If you are finished with your work, prior to the end of your shift, follow procedures for start-up. If your work is not completed by the end of your shift, and your relief from the next shift arrives, have him/her place their lockout and tagout devices in place of yours. If your relief has not arrived, have your supervisor use his/her lockout and tagout devices in place of yours. Your supervisor must then inform the next supervisor that his lockout and tagout devices are on the machine or equipment. If it's a one shift operation, leave your lockout and tagout devices on the machine or equipment, but make sure that your supervisor has been informed.

NEVER LEAVE AN ENERGY SOURCE UNLOCKED OR UNTAGGED UNLESS WORK HAS BEEN COMPLETED AND RE-START PROCEDURES IMPLEMENTED.

E. If tagout is to be used instead of lockout, additional safety precautions must be implemented.

1. Have authorized electricians remove fuses and you maintain them until ready for start-up.

2. Place fixtures adjacent to the disconnects.