

Appendix F – Minimal Lockout/Tagout Procedure Outline

The following minimal lockout procedure outline has been adapted from [OSHA's Appendix A to 1910.147 – Typical Minimal Lockout Procedure](#). This document is provided to assist Authorized Individuals in developing their own documented procedures, so they meet the requirements of the Academic & Research Operations LOTO Policy. When the energy isolating devices are not lockable, tagout may be used, provided the individual(s) comply with the provisions of this policy which require additional training and more rigorous periodic inspections. **NOTE:** For more complex systems, a more comprehensive Lockout/Tagout procedure may need to be developed, documented, and utilized.

Lockout/Tagout Procedure

Identify the machine or equipment.

Purpose

This procedure establishes the minimum requirements for the lockout/tagout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before Authorized Individuals perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

Compliance With This Program

All individuals are required to comply with the restrictions and limitations imposed upon them during the use of lockout/tagout. Authorized Individuals are required to perform the lockout/tagout in accordance with this procedure. All individuals, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

Sequence of Lockout

(1) Notify all Affected Individuals that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

Identify the Name(s)/Title(s) of Affected Individuals and how to notify them of the LOTO operation.

(2) The Authorized Individual(s) shall refer to the university procedure 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.

Identify the type(s) and magnitude(s) of energy, its hazards, and the methods to control the energy effectively.

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

Identify the type(s) and location(s) of all applicable machine or equipment operating controls. Consult machine or equipment manufacturer documentation and written SOPs for proper shutdown procedures.

(4) De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

Identify the type(s) and location(s) of all applicable energy isolating devices.

(5) Lock out the energy isolating device(s) with assigned individual lock(s).

(6) Stored or residual energy (such as that in capacitors, 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 grounding, repositioning, blocking, bleeding down, etc.

Identify the type(s) of stored energy. Provide detailed information on the methods required to dissipate or restrain energy sources to ensure the safety of individuals working on the machine or equipment.

(7) Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Describe the method required to verify the effective isolation of the machine or equipment.

(8) The machine or equipment is now locked out.

Restoring Equipment to Service

When the servicing or maintenance work is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:

(1) Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

(2) Check the work area to ensure that all individuals have been safely positioned or removed from the area.

(3) Verify that the controls are in neutral.

(4) Remove the lockout devices and reenergize the machine or equipment.

(5) Notify Affected Individuals that the servicing or maintenance is completed, and that the machine or equipment is ready to be placed back in operation.