



UNDERSTANDING GROUP LOTO

Important safety information for authorized personnel performing service and maintenance of machines, equipment, and systems in groups of two or more workers

EQUIPMENT MAINTENANCE AND SERVICING HAZARDS

During service and maintenance of equipment, machines, and systems, personnel may be injured if exposed to uncontrolled hazardous energy. Injuries can include shocks, fractures, amputations, and fatalities.

A set of safe work practices and procedures, along with locking and tagging out (LOTO) equipment with energy-isolating devices, are required to mitigate the potential exposure to hazardous energy sources inherent to the equipment.

Authorized Persons (AP)

- > An employee who locks out or tags out machines or equipment in order to perform service or maintenance
- > Any employee who implements a lockout and/or tagout system procedural element on machines or equipment (for servicing and/or maintenance purposes)

Authorized Persons (AP) must be provided with a **personal lock and tag** to ensure their control over hazardous energies to which they might be exposed when servicing or maintaining equipment.

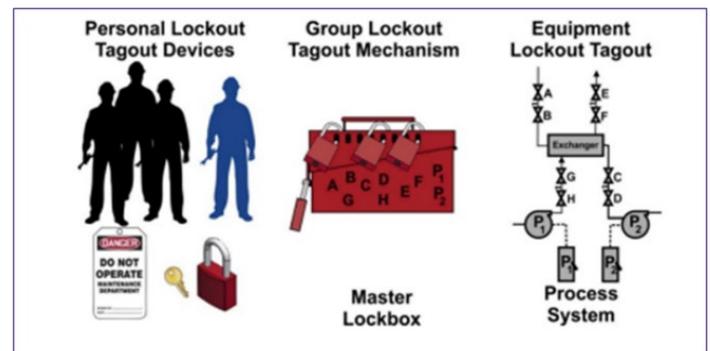
The *equipment can **only** be energized after the AP removes their lock and tag.*



Circuit breaker lockout device locked and tagged out

GROUP LOTO

The **group LOTO procedure must be utilized** when more than one AP is involved in the servicing or maintenance of equipment, machines, or systems.



Group LOTO using lockbox

Group LOTO requires the following:

1. Identify a Primary Authorized Person.
2. Develop an equipment-specific LOTO procedure.
3. Confirm that all APs have the opportunity to review the equipment-specific LOTO procedure and verify zero-energy status.
4. Confirm that all APs on the group LOTO apply their personal lock/tag on the group LOTO device (e.g., hasp, lockbox).

Primary Authorized Persons (PAP)

- > Overall responsibility for work
- > Identified on procedure as PAP
- > First one on the group LOTO device (hasp or lockbox)
- > Attaches lock and tag to group LOTO device when equipment is de-energized
- > Makes sure everyone on the system performing work places their lock and tag on the group LOTO device and has the opportunity to verify zero-energy status
- > Last person to remove their personal lock and tag from the group LOTO device when job is complete

CASE STUDY

[Group LOTO Fatality](https://blog.ehssoftware.io/safetyinsiderblog/lockout-tagout-accidents)

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Employees were performing repairs on an 8-ft-diameter pipeline that carried hot oil. They had properly locked and tagged pumping stations, pipeline valves and the control room prior to beginning repairs. When the work was completed and inspected, all lockout/tagout safeguards were removed and all elements were returned to their operating state. At this point, control-room personnel were alerted that the work was completed and they were requested to start up the system 5 hours earlier than was scheduled.

The two supervisors were not aware of the early start-up and decided to inspect the repairs themselves. They were needed to walk inside the pipe with lights to perform the inspection; however, **they did not perform any lockout/tagout procedures for the inspection process.** The supervisors also neglected to notify control-room personnel of their last-minute decision to inspect. As the control-room operators started the system as instructed, oil began to flow through the pipe, killing the two supervisors.

All personnel involved in the servicing and maintenance of equipment (including inspection) must be on the group LOTO.

The placement of a personal lockout or tagout system device enables that employee to have a degree of control over their own protection, rather than having to depend completely upon other people.

MORE INFORMATION

Refer to the [UW Hazardous Energy Control LOTO Program Manual](#) for more information on how to perform group LOTO.

Contact EH&S at 206.543.7388 or ehsdept@uw.edu for more information.

WHAT CAN YOU DO?

Supervisors

- Provide personal locks and tags to all your APs.
- Ensure all APs are trained in the UW Lockout/tagout program prior to performing LOTO. (Refer to the training section of the [UW Hazardous Energy Control LOTO Program Manual](#)).
- Ensure all service and maintenance activities that involve more than one AP have:
 - An [equipment-specific LOTO procedure \(example template on the EH&S website\)](#);
 - A PAP has been identified; and
 - All APs are documented on the procedure and have had the opportunity to verify zero energy status.
- Ensure your APs always have a personal lock and tag on the group LOTO device (hasp or lockbox).

Authorized Persons

- Always place your personal lock and tag on a group LOTO device when performing service or maintenance.
- Always place your personal lock and tag on a group LOTO device when involved in these LOTO steps: Isolating energy using isolation devices, applying locks and tags, relieving stored energy, verifying zero energy, releasing LOTO, testing and positioning.
- Complete the UW [EH&S LOTO training course](#) before servicing or maintaining equipment.
- Always verify zero energy status before performing service or maintenance.
- Report unsafe conditions or behaviors to your supervisor.
- Report all LOTO incidents to your supervisor and submit an [Online Accident Reporting System \(OARS\) form](#) on the EH&S website.



Be safe and follow LOTO procedures when servicing and maintaining equipment!