

LOCKOUT/TAGOUT FOR MACHINES & EQUIPMENT: TRAINING AND INSPECTIONS

Introduction

During normal operation, guards must be in place to protect employees from contacting moving or dangerous parts of machines or equipment that could lead to entanglement, amputation/laceration, and pinching, pinning, crushing, or other injury. However, it may be necessary to remove or inactivate guards during maintenance and repair operations. In these situations, a Lockout/Tagout (LO/TO) program must be observed.

Regulatory Basis

The content of this SOP and UNL's LO/TO program is based on the Occupational Safety and Health Administration (OSHA) general industry standard, 29 CFR 1910.147, *The Control of Hazardous Energy*.

Training

All "authorized" and "affected" employees must complete LO/TO training.

- An "**Affected Employee**" is an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under LO/TO, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed. Affected employees must be instructed in the purpose and use of the energy control procedure and advised to refrain from attempting to remove a LO/TO device or reenergize a machine or equipment during LO/TO. This training must be conducted by their supervisor or other knowledgeable authority.
- An "**Authorized Employee**" is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. Authorized employees must complete the general awareness training provided by EHS (available as a web-based module titled ***Lockout/Tagout for Machines and Equipment***) and supplemental specific training provided by a competent individual who is experienced with the machine/equipment and prescribed, written LO/TO procedures. Generally, this a supervisor or his/her delegate. Specific training must include:
 - Thorough review of the written LO/TO procedure (See EHS SOP, ***Lockout/Tagout for Machines & Equipment: Written Procedures***).
 - Hands-on demonstration of implementation of all steps of the procedure. The trainee should demonstrate his/her knowledge by performing the procedure for the trainer.
 - Review of the limitations of tags in the LO/TO procedure, if applicable.
 - Procedures to be used in the case of a shift change, if applicable.
 - Group LO/TO procedures, if applicable.

- Working with outside contractors, if applicable. This training must be performed each time a new project with an outside contractor is started.

Training Frequency

Employees must complete LO/TO training (EHS general training and supplemental task or machine/equipment-specific training) before being assigned to conduct any task that requires implementation or observance of LO/TO procedures and devices. Retraining must occur when there is:

- A change in job assignments;
- A change in machines/equipment;
- A change in energy control procedures or devices;
- A change in process that presents a new hazard;
- Indication that an employee has not retained the requisite skill or knowledge to properly implement LO/TO concepts and procedures;

Retraining must also occur as part of the annual review of written LO/TO procedures. The review should also include discussion with authorized and affected employees to reinforce each employee's responsibilities relative to the procedure. (See EHS SOP, ***Lockout/Tagout for Machines & Equipment: Written Procedures***).

Training Documentation

EHS will maintain documentation of persons completing the EHS general awareness training (Control of Hazardous Energy: Lockout/Tagout (LO/TO) for Machines & Equipment). Departments should maintain documentation of specific training provided by the supervisor (or delegate). All training records should be maintained for a minimum of three years.

Program Review and Inspections

Supervisors (or their authorized delegate) must periodically (at least annually) review written procedures & observe employees performing LO/TO to verify continued efficacy and employee adherence to established procedures. Reviews must be documented, to include:

- Date of review;
- Name of the person conducting the review;
- Identification of the procedure that was reviewed
- Names of the employee(s) involved in the review (generally the name(s) of the employee(s) who were actually implementing the procedure at the time of review).
- Deficiencies in the procedure or its implementation and corrective actions taken.

Review records should be maintained for a minimum of three years.