

# CONTROL OF HAZARDOUS ENERGY SOURCES (LOCKOUT/TAGOUT)

### 29 CFR 1910.147

The OSHA Lockout/Tagout standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines and equipment, or the release of stored energy could cause injury to employees.

This rule essentially requires that energy sources for equipment be turned off or disconnected and that the switch either be locked or labeled with a warning tag.

### Who Is Covered?

About three million workers actually servicing equipment face the greatest risk. These include craft workers, machine operators, and laborers. According to OSHA data, workers who operate packaging and wrapping equipment, printing presses and conveyors experience the highest number of accidents associated with lockout/tagout failures.

Workers who are involved in agriculture, maritime and construction are not currently covered by this rule. In addition, workers involved in the generation, transmission and distribution of electric power by utilities and work on electric conductors and equipment are excluded because the procedures for these specific industries are included in other safety and health standards.

### General Requirements Under The Standard:

Employers are required to:

• Develop an energy control program consisting of energy control procedures, employee training and periodic inspections to ensure that procedures are being followed;

- Use locks when equipment can be locked out;
- Ensure that new equipment or overhauled equipment can accommodate locks;
- Use additional means to ensure safety when tags rather than locks are used;
- Identify and implement specific procedures (usually in writing) for the control of hazardous energy including preparation for shutdown, shutdown, equipment isolation, lockout/tagout application, release of stored energy, and verification of isolation;
- Institute procedures for the release of isolated equipment including machine inspection, notification and safe position of employees and removal of the lockout/tagout device;
- Obtain standardized locks and tags which indicate the identity of the employee using them;
- Ensure the locks and tags used are of sufficient quality and durability;
- Require that each lockout/tagout device be removed **only** by the employee who applied the device;
- Conduct inspections of energy control procedures at least annually; and,
- Adopt procedures to ensure safety when equipment must be tested during servicing, when outside contractors are working at the site, when a multiple lockout is needed for a crew servicing equipment, and when shifts or personnel change.

## **Exclusions:**

- Normal production operations including repetitive or routine procedures and minor adjustments which would be covered under OSHA's machine guarding standards.
- Work on cord and plug connected electric equipment when it is unplugged, and the employee working on the equipment has complete control over the plug.
- Hot tap operations involving gas, steam, water, or petroleum products when the employer shows that continuity of service is essential, shutdown is impractical and documented procedures are followed to provide proven effective protection for employees.