Lockout Tagout Employer's Guide Step 1: Definitions You Need To Know To Get Started

What You NEED To Do
Before you start evaluating, creating, or changing your LOTO procedures, you need to make sure that you and everyone else involved in the process is using a common language concerning the risks and hazards. You don't need to have a degree in electrical engineering, but you do need to know the difference between kinetic and potential energy, and why de-energization is so important. There are often hidden sources of energy still present even after the main energy source has been disconnected from the equipment. These hidden energy sources are commonly known as kinetic energy and potential energy. De-energization means removing the energy from machinery or equipment, and lockout refers to using lock(s) to isolate an energy source or to ensure machinery or equipment is inoperable. In order to properly de-energize equipment, it's essential that employers implement controls to eliminate or reduce the risk of these energy sources. BACK TO START | NEXT STEP OF 9

Before you start building or auditing your LOTO procedures, you need to have a common lexicon, or shared definition of the following key terms as per regulations.

What is de-energization and lockout?

De-energization means removing the energy from machinery or equipment. Lockout refers to using lock(s) to isolate an energy source or to ensure machinery or equipment is inoperable.

De-energization and lockout must be done in combination to effectively prevent the release of energy that could potentially cause injuries.

There are often hidden sources of energy still present even after

the main energy source has been disconnected from the equipment. These hidden energy sources are commonly known as kinetic energy and potential energy. To properly de-energize equipment, it’s essential that employers implement controls to eliminate or reduce the risk of these energy sources.

When is de-energization and lockout required?

Machinery or equipment must be de-energized and locked out when maintenance work is being done, or any time safeguarding is removed, bypassed, or circumvented.

Maintenance is any work performed to keep machinery or equipment in a safe operating condition. This includes installing, repairing, cleaning, and lubricating the equipment, as well as clearing any obstructions in the machinery.

Which Employees are at Risk of Injury?

Employees risk of injury from equipment and machines varies depending on what they are doing. There are two categories of employee:

- **Authorized Employees or Persons** – A qualified person who locks out or tags out specific machines or equipment in order to perform cleaning, repairing, servicing, setting-up, and adjusting operations on that machine or equipment. An Affected Employee becomes an Authorized Employee when that employee’s duties including performing cleaning, repairing, servicing, setting-up, and adjusting operations covered under this section.
- **Affected Employees** – An employee whose job requires them to operate or use a machine or equipment on which cleaning, repairing, servicing, setting-up or adjusting operations are being performed under lockout or tagout, or whose job requires the employee to work in an area in which such activities are being performed under lockout or tagout.

What are normal Production Operations? Using machines or equipment to perform their intended production functions.

What is a Prime Mover? The source of mechanical power for a machine.

Cord and Plug Connected Equipment: Equipment where the only energy source is electrical power provided by a plug in connection.

Energized: Connected to an energy source or containing residual or stored energy.

Energy Isolating Device: A mechanical device that physically prevents the transmission or release of energy. This includes: Valves, Breakers, Switches; Blank Flanges for piping systems; Restraining Devices to prevent movement of parts; etc.

Hydraulic Energy: The energy derived from the motion and pressure of a liquid, such as water or oil.

Mechanical Energy: The energy of moving parts of a machine.

Pneumatic Energy: The energy derived from the motion and pressure of a gas, such as air.

Potential Energy: The stored energy that can be drawn upon to do work (e.g., suspended loads and compressed springs).

Qualified Person, Attendant or Operator: A person designated by the employer who by reason of his training and experience has demonstrated his ability to safely perform his duties and, where required, is properly licensed in accordance with federal, state or local laws and regulations.

BACK TO START | **NEXT STEP**