

Machine Lockout/Tagout Procedures



Equipment often requires maintenance or servicing, which triggers the lockout/tagout (LOTO) procedure to prevent accidental startup or release of stored energy. During LOTO, equipment is powered down, locked, and tagged, rendering it non-operational. However, there are key steps to follow to ensure safety before and during this process.

Before Lockout Happens

When new equipment is introduced, it's crucial to create energy-control procedures detailing shutdown methods, LOTO techniques, and responsibility assignments. These procedures should include:

- How to use procedures
- Steps to shut down, isolate, block, and secure machines
- Steps to place and remove LOTO devices
- How to identify responsibility for LOTO devices
- A process for testing machines to verify lockout devices and other energy-control measures are effective

Proper training is essential for all employees involved in LOTO. This includes affected employees who need to understand what a LOTO device is and that they are not to remove one.

The 8 Steps of a LOTO Procedure

Step 1: Notify Affected Employees - Inform employees about the shutdown through appropriate communication channels, ensuring they understand the equipment will be locked out for maintenance.

Step 2: Identify Procedure and Hazards - Assess the energy sources, potential hazards, and energy control methods for the equipment needing maintenance.

Step 3: Shut Down - Safely shut down the equipment using standard stopping procedures to avoid additional hazards.

Step 4: Isolate Machine from Energy Source - Disconnect the equipment from its energy source using energy-isolating devices, such as circuit breakers or valves. ON/OFF and STOP buttons **do not qualify** as energy-isolating devices.

Step 5: Apply Lockout/Tagout Devices - A LOTO tagout device holds the energy isolating device in a SAFE/OFF position. Safety padlocks prevent the removal of the energy-isolating device.

While tagout device warns others not to restore energy, the tag should include the name of the employee who applied it and why.

Step 6: Check Stored Energy - Once energy-isolating devices are locked out, this step requires checking for stored energy. Ensure all residual energy (pressure, liquids, gases, tension) is safely released or dissipated.

Step 7: Verify Isolation - This step is very important; it can save lives. Test the equipment to confirm it is fully isolated from the energy source and ensure it cannot be reactivated accidentally.

Step 8: Bring Equipment Back to Operation - After servicing, prepare the equipment and work area for safe operation, ensuring all personnel are ready for startup.