

UCI Environmental Health & Safety

Safety Moment



Controlling Hazardous Energy

How Lockout and Tagout Protect You

Machinery or equipment that starts up unexpectedly while someone is performing maintenance or repairs can be a serious safety hazard. Lockout and tagout rules are designed to protect workers from the unexpected startup or release of stored energy that could cause injury. Although only authorized employees can perform lockout/tagout (LOTO), all employees should understand the LOTO process. Do not attempt to start or use any equipment that has been locked or tagged out by someone else.

Keeping Energy “Off”

Electricity, gas, hydraulic and pneumatic systems, raised weights, pressurized fluids, or tightly coiled springs must be “neutralized” for safety during maintenance and repairs; that is, the power that operates the machine or equipment must be released or shut off. *Lockout* means putting a lock on a machine or equipment to ensure it stays off. Lockout locks must meet special requirements and be identified by the name of the worker who installs and removes them.

When equipment cannot be locked out, it must be “tagged out” with a special tag that warns other workers of the danger of starting up the machine. These tags must also meet special requirements and show the identity of the authorized employee.

Restarting Equipment

After the work is completed, only the same authorized employee who installed the lock may remove it and restart the equipment. Before restarting the equipment, ensure all other workers are a safe distance away, remove tools, reinstall missing guards and restore energy. Afterwards, notify nearby employees that the equipment is operational.

Take 8 Steps to Lock Out Hazards

1. Think, plan, and check. If you are in charge, think through the entire procedure. Identify all parts of any systems that need to be shut down. Find the switches, valves or other devices that need to be locked out.
2. Communicate. Tell affected employees you’ll be locking out the equipment and the reason why.
3. Locate all power sources including stored energy in springs or hydraulic systems.
4. Neutralize all power at its source and disconnect electricity. Block movable parts. Release or block spring energy. Drain or bleed hydraulic and pneumatic lines. Lower suspended parts to rest positions.
5. Lock-out all power sources. Use a lock designed only for this purpose. Use a lockout tag that includes your name, the time, date, and department.
6. Test operating controls. Turn on all controls to make sure the power doesn’t go on.
7. Turn controls back to “off.”
8. Perform necessary repairs or maintenance.

