

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. New lockout and tagout rules are designed to protect workers from unexpected startup or release of stored energy that could cause injury. Although only authorized employees are permitted to perform lockout procedures and to remove locks and tags, all employees need to understand lockout and tagout procedures.

Keeping Energy "Off"

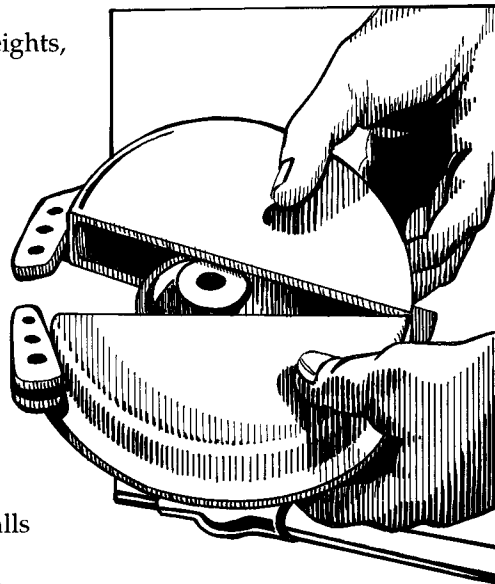
Electricity, gas, hydraulic and pneumatic systems, raised weights, pressurized fluids or tightly coiled springs must be "neutralized" for safety during maintenance and repairs; that is, the power that operates the machine or equipment must be released or shut off. *Lockout* means putting a lock on a machine or piece of equipment to make sure it stays off. Lockout locks must meet special requirements and must 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. When restarting the equipment, make sure all other workers are a safe distance away, remove tools from the equipment, reinstall machine guards, restore energy and notify others that the machines are working and back on.



Lockout devices are used to prevent startup, or the release of stored energy; they also secure valves when machinery or equipment is being maintained or repaired.

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 why.
- 3** Locate all power sources, including stored energy in springs or hydraulic systems.
- 4** Neutralize all power at its source. 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 and 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.