

LOCKOUT/TAGOUT



Energy Hazards that requires **LOTO** before beginning work:

- ✓ Electrical
- ✓ Mechanical
- ✓ Chemical
- ✓ Thermal
- ✓ Pneumatic
- ✓ Hydraulic
- ✓ Gas

POINTS OF DISCUSSION

Unintended release of energy is hazardous.

Use a documented program to control hazardous energy, including:

1. Isolating all hazardous energy sources at the site.
2. Installation, servicing and use of equipment associated with hazardous energy.

FIRST STEPS IN LOTO

- Know your Equipment - Working on unfamiliar equipment is a Hazard!
- Identify the energy hazards
- Where are the isolation points?
- What equipment is needed for **LOTO**?
- Ensure Energy is isolated before beginning work.

LOCKOUT/TAGOUT

WHO CAN LOCK OUT?

- Any trained and authorized employee who has to perform work or perform maintenance on a piece of equipment.
- Each person working on the equipment must place their own locks and tags to ensure their safety.

Note: Only the employee doing the work holds a key to their lock and has the authority to remove it OR a supervisor, after obtaining permission from the worker who placed the tag.

HOW DO I LOCKOUT?

- Prepare for shutdown
 - Understand equipment hazards and notify other workers
- Shut the machine down properly
- Isolate all energy sources - Valves, breakers, insert blanks, etc...
- Apply lock(s)/tag(s) to **ALL** energy sources
- Release or block residual energy
 - Discharge capacitors, block or release springs, stop rotating flywheels, relieve system pressure, drain any fluids or vent gases and allow system to cool down
- Verify energy isolation
 - Check isolation, attempt normal startup, and return controls to OFF/Neutral

RELEASE FROM LOTO

- Inspect area and equipment
- Ensure that all machine guards are in place
- Move tools away from equipment
- Inform other employees of startup
- Restore system connections
- Remove Locks & Tags
- Restore equipment to normal operation
- Conduct normal startup

EXPECTATION = SAFETY FIRST!

It is important to plan your work ahead of time, documenting what needs to be Locked Out and Tagged Out.

