

## CONTROL OF HAZARDOUS ENERGY: GENERAL LOCKOUT/TAGOUT PROCEDURE – SINGLE ENERGY SOURCE

### Establishing a Lockout / Tagout

Step	Person	Action
1.	Authorized worker or supervisor	Establish permission. Contact the equipment custodian to establish <ul style="list-style-type: none"> <li>• permission to work on equipment and</li> <li>• additional contacts, if any, for work coordination</li> </ul>
2.	Authorized worker or supervisor	Notify affected parties prior to shut down. <ul style="list-style-type: none"> <li>• Notify all affected parties that a lockout/tagout is about to take place, the reason for it, and the specific affected machinery or equipment</li> <li>• Clear the area of people and any nonessential objects</li> </ul>
3.	Authorized worker	Identify and locate the energy source and energy isolating device. If electrical energy is involved, you must follow both this general LOTO procedure and perform zero voltage verification as described in Control of Hazardous Energy: Zero Voltage Verification Procedure. <sup>6</sup> Note: If more than one energy source is involved you must follow an equipment-specific lockout / tagout procedure.
4.	Authorized worker or equipment operator	Shut the machine or equipment down using the normal stopping procedure.
5.	Authorized worker or equipment operator	Operate the disconnect switch, circuit breaker, valve or other energy isolating device to isolate (disconnect) the machine or equipment from its energy source.
6.	Authorized worker(s)	Apply assigned lockout and tagout devices to the energy isolating device.
7.	Authorized worker(s)	Relieve and/or restrain stored energy. Exhaust or restrain stored or residual energy in the machine or equipment by grounding, blocking, bleeding down, etc.
8.	Authorized worker	Verify zero energy. <ul style="list-style-type: none"> <li>• Attempt to start the equipment using normal operating controls to check that the energy source has been successfully disconnected.</li> <li>• Return the operating control(s) to the neutral or off position before proceeding with servicing or maintenance work.</li> <li>• Assure zero energy state appropriate to the type of hazardous energy involved</li> </ul>
9.	Qualified electrical worker	Performs ZVV if worker(s) will cross the arc flash and shock hazard protection boundaries or touch exposed conductors.
10.	Authorized worker	Proceeds with servicing or maintenance work.

**Returning Equipment to Service**

Step	Person	Action
1.	Authorized worker	Checks the machine/equipment and surrounding area to ensure that nonessential objects have been removed, guards have been reinstalled, and that the machine/equipment is operationally intact.
2.	Authorized worker	Verifies machine/equipment controls are in the "neutral" or "off" position.
3.	Authorized worker	Verifies that all affected workers and other authorized workers are out of harm's way.
4.	Authorized worker	Removes lockout and tagout devices and reenergizes the equipment.
5.	Authorized worker	Before restarting machinery/equipment, notifies affected employees that work is complete and that locks and tags have been removed.
6.	Authorized worker	Notifies the client that the lockout/tagout process is complete, and that normal work may proceed on the equipment.