

## APPENDIX A LOTO General Procedure

<b>Name:</b>	<b>Date:</b>
<b>Equipment (Name, Make, Model):</b>	<b>Location (Bldg, Room #):</b>
<b>Department:</b>	
<b>Authorized Employee(s):</b>	
<b>Affected Employee(s):</b>	

This general procedure may be used for those situations where specific procedures are not in place.

Step	Description	Done
Prepare for Shutdown	Identify all types and magnitude of potentially hazardous energy associated with the specific machine/equipment. Remember, there easily can be more than one energy source. Types of energy to consider include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.	<input type="checkbox"/>
	Communicate with affected employees (including building automation and controls personnel) who work on or near machinery or equipment that is part of a LOTO process of the intent to perform work on that machinery or equipment and the application of LOTO. Affected employees must be advised to not attempt to restart the machinery or equipment or to implement some other action that may adversely impact safety during work on the machinery or equipment. Affected employees must be informed as to who is responsible for the LOTO process and how they will be notified once the LOTO process is complete.	<input type="checkbox"/>
Shutdown	Complete the machinery or equipment shutdown process using the standard shutdown procedures established for that specific machine or equipment (not emergency procedures or other shortened/simplified methods).	<input type="checkbox"/>
Isolate Energy	Physically locate the energy isolation devices for the machinery or equipment (NOTE: push-buttons, selector switches, safety interlocks, and other control circuit type devices are not energy isolation devices). Follow the machinery or equipment specific LOTO procedure to isolate energy sources. Communicate to affected employees (including building automation and controls personnel) that LOTO is being implemented and why. Isolate energy sources at the energy isolating device (for example, disconnect switch, control valve, etc.).	<input type="checkbox"/>
Apply LOTO Device	Lockout the energy source at the energy isolating device. Locks must be accompanied by a tag. The tag must list the Authorized Employee's name, reason for LOTO, and date. Locks must be affixed in a manner to that will hold the energy isolating devices in a "safe" or "off" position. For those situations where the energy isolating device cannot accommodate a physical lock, tags only may be used. Tags must be able to withstand the environment in which they are used and must be substantial enough to prevent inadvertent or accidental removal. The tag must clearly state "Do Not Energize", or an equivalent statement, and contain the Authorized Employee's name, reason for LOTO, and date.	<input type="checkbox"/>
Relieve Stored Energy	After installing the LOTO device to all energy isolating devices, potentially hazardous energy (stored or residual) must be relieved, disconnected, restrained, or otherwise rendered safe.	<input type="checkbox"/>

# Control of Hazardous Energy (Lockout/Tagout)



Verify LOTO	Verify that the LOTO procedure has effectively isolated and deenergized all energy sources. Verification must consider both primary and stored energy sources. Verify by visual inspection and physical testing. Visual inspection includes visually determining switches, valves, breakers, etc. are properly locked and tagged in the "safe" or "off" position. Visual inspection also includes determining that potential energy such as flywheels, saw blades, etc. have stopped motion. Physical testing includes activities such as attempting to start up machinery or equipment or using a test instrument such as a combustible gas indicator.	<input type="checkbox"/>
Service, Maintenance, and Repair	Once verification is complete, service, maintenance, or repair work can be completed.	<input type="checkbox"/>
Inspection	After the service, maintenance, or repair work is complete and before LOTO devices are removed, the area must be inspected to ensure that: Nonessential items have been removed. Machinery and equipment parts/components are operationally intact. Machine or equipment shields/guards are in place. Controls are in the "neutral" or "off" position. Personnel are safely positioned for startup.	<input type="checkbox"/>
Remove LOTO	Once the inspection process has determined a safe situation, LOTO devices may be removed by the Authorized Employee who installed the LOTO devices on the energy isolation device.	<input type="checkbox"/>
Communicate	Communicate with affected employees that the LOTO devices have been removed and that you are preparing to restart the machinery or equipment.	<input type="checkbox"/>
Reenergize	Reenergize the machinery or equipment following normal startup procedures or according to manufacturer's instructions. If there is a sequencing process to startup, be sure and follow the appropriate steps.	<input type="checkbox"/>