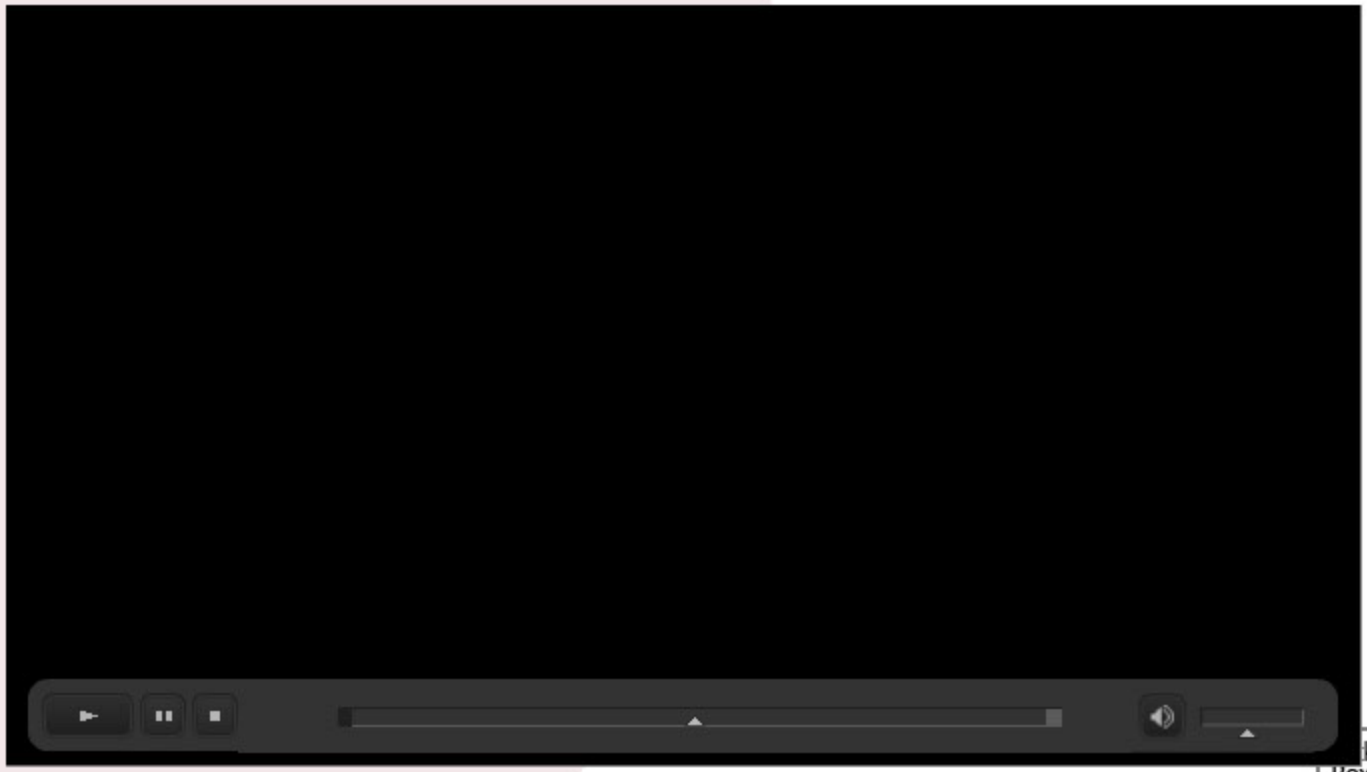
1.0 Introduction to Lockout/Tagout

Employees who perform service or maintenance on machinery and equipment may be exposed to injuries from the unexpected energization, startup of machinery or equipment, or the release of stored energy in the equipment. The OSHA standard entitled, “Control of Hazardous Energy (Lockout/Tagout)” (29 CFR 1910.147), requires the adoption and implementation of practices and procedures to properly shut down equipment, isolate equipment from its energy source(s), and prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed. As its name implies, it contains minimum performance requirements and definitive criteria for establishing an effective program for the control of hazardous energy.

There are provisions in the standard that provide flexibility to employers in their development of lockout/tagout programs that best suit their respective workplaces. Click play on the video tile to the right to learn more about Lockout Tagout and the various forms of hazardous energy.



k
Box

1.1 Purpose

The purpose of this important OSHA standard is to prevent injury to servicing and/or maintenance employees by avoiding the unexpected energization or startup of machines and equipment, or the release of stored energy. The standard deals with two energy types: direct and stored. Examples of direct energy are the direct electrical supply that operates the equipment, moving water that turns a wheel or other device, or flowing natural gas that powers equipment. Examples of stored energy are a compressed spring, a battery, gravity, a capacitor, or a pressurized pipe.

To accomplish this objective, the standard requirements include the establishment of an energy control program that consists of specific energy control procedures, employee training, and periodic inspections to ensure that before service and maintenance is performed, machines and equipment that could unexpectedly startup, become energized, or release stored energy, are isolated from their energy source(s) and rendered safe for further work on them.

Click Box

1.2 Scope & Application

As stated earlier, this standard covers employees who perform servicing or maintenance on machines or equipment and who are or may be exposed to the unexpected energization or release of hazardous energy. This standard is intended to apply to non-production operations of equipment in general industry. When production is taking place, this standard generally does not apply; however, when maintenance or service is being performed on the production machines and equipment, the standard applies. The important exception to the standard is that it does apply during normal production if a machine guard or other safety device has been removed or bypassed, or if an employee is exposed to a danger zone associated with the machine's operation.

This standard does not apply to construction, agriculture, maritime, electric utilities, or oil and gas wells. For most businesses and industry not covered by this general industry Lockout/Tagout (LOTO) standard, there are other standards that may apply.

1.3 Definitions

Within its scope, the standard incorporates a number of important terms defined as follows:

Authorized Employee: An employee who locks or tags machines or equipment to perform servicing or maintenance. Lockout tagout is used by these employees for their own protection, since they are responsible for implementing the energy control procedures and performing the service and maintenance. These employees are responsible to:

- Repair or service equipment as needed
- Ensure that all energy sources are locked
- Test equipment to verify residual energy is dissipated
- Place the appropriate tagout device on the equipment
- Remove locks and/or tags following LOTO

1.3 Definitions

Affected Employee: An employee who uses machines or equipment on which servicing is being performed or who performs other job responsibilities in an area where such service or maintenance is being performed under the Lockout/Tagout standard. These employees are those who do not meet the definition of "authorized employees," but who could interfere with energy isolation by removing a lock or tag or throwing a switch. With this definition, virtually anyone in the general area could be an "affected employee." These employees are responsible to:

- Notify maintenance when machinery or equipment needs repair
- Leave all lockout tagout devices in place
- Verify equipment is safe to operate following lockout tagout
- Follow all safety rules while operating the equipment

Other Employees or Outside Personnel: All employees who are or may be in an area where energy control procedures may be utilized.

Click Box

1.3 Definitions

Capable of Being Locked Out: An energy-isolating device is considered capable of being locked out if it:

- Is designed with a hasp or other means of attachment to which a lock can be affixed
- Has an integrated locking mechanism
- Can be locked out without dismantling, rebuilding, or replacing the energy isolating device or permanently altering its energy control capability

Energized: Machines and equipment are energized when they are connected to an energy source or they contain residual or stored energy.

1.3 Definitions

Energy Isolation Device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Click Box

1.3 Definitions

Lockout: The placement of a lockout device on an energy isolation device, in accordance with an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device: Any device that uses positive means, such as a lock, blank flanges, and bolted slip blinds, to hold an energy-isolating device in a safe position, thereby preventing the energizing of machinery or equipment.

Normal Production Operations: Utilization of a machine or equipment to perform its intended function.

Click Box

1.3 Definitions

Servicing and/or Maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing machines or equipment, including lubrication, cleaning or unjamming of machines or equipment, and conducting adjustments or tool changes, where employees could be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Tagout: The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout Device: Any prominent warning device, such as a tag and a means of attachment, that can be securely fastened to an energy-isolating device to indicate that the machine or equipment to which it is attached may not be operated until the tagout device is removed. Tagout devices are commonly used in conjunction with lockout devices.

2.0 Lockout Tagout Devices

All lockout/tagout devices must be standardized within the facility in at least either color, shape, or size, with standard print and format for ease in identification by employees. They must also be identifiable in that they indicate the name of the employee who applied the device. Obviously given their specific nature, the devices must not be used for any other purpose but for lockout or tagout purposes. They must be durable, so that they are capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected. Every lockout/tagout device should be documented on a LOTO log that is retained in the workplace and updated when new devices are introduced.

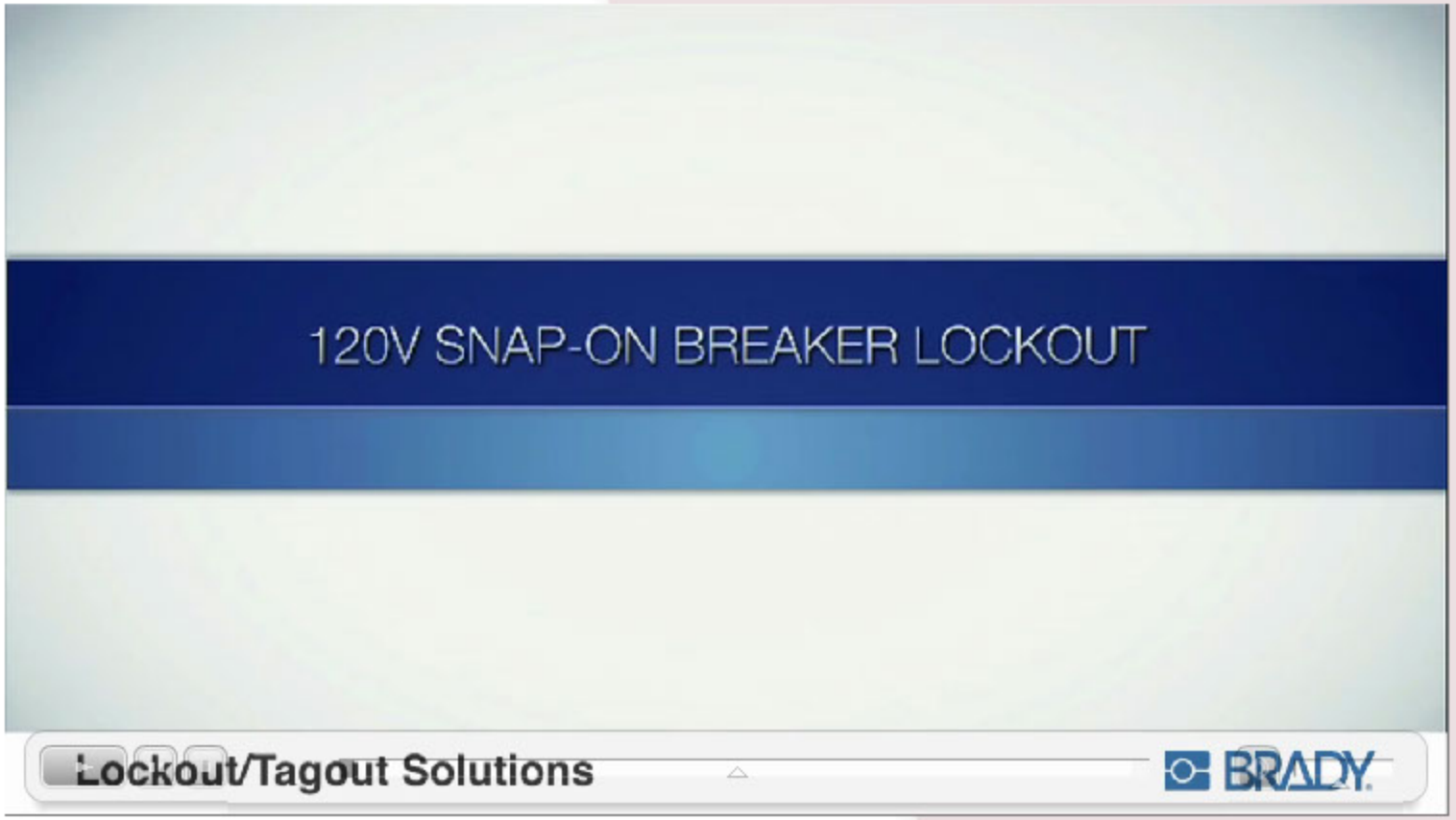
Click Box

2.1 Energy Isolation Devices

Prior to reviewing the various lockout and tagout devices, it is important to understand the concept of energy isolation devices. These devices are the control mechanisms that turn off the energy used by the equipment or machinery. Typically, they are:

- Switches
- Plugs
- Valves
- Breakers

Click the play button in the video provided to watch a brief video on various types of energy isolation devices and how they are applied.



Click Box

2.1 Energy Isolation Devices

A typical “on/off” switch can only be used as an energy isolation device if it can be verified as “off,” which is often verified by an authorized person using a voltmeter. This practice is not recommended, as many authorized personnel do not have the proper equipment, or the equipment may be faulty. A better solution is to install a local disconnect such as knife switch.

An “emergency stop button” can only be used as an energy isolation device if it truly removes energy. Most “e-stops” are nothing more than a normally closed push button that has internal mechanical plastic or metal tabs and grooves such that, when pushed, the circuit interruption is held in that position until twisted. E-stops can be easily overridden and are prone to fail. As a result, e-stops CANNOT be used as energy isolation devices.

Click Box

2.2 Lockout Devices

As a reminder, lockout devices use positive means to hold an energy isolation device in a safe position, thereby preventing the energizing of the machinery or equipment. Lockout devices make otherwise unlockable energy isolation devices lockable. As an example, most circuit breakers are not lockable; however, they still can be locked with a device such as a lockable circuit breaker cover.

Typical lockout devices include locks, chains, wedges, key blocks, adapter pins, or other manufactured lockout devices specific to a machine or piece of equipment.

The lock on a lockout device provides a physical barrier that cannot be removed without the appropriate key. A lock must always be used unless the equipment is not lockable and cannot be made lockable with the use of another LOTO device.

Click Box

2.2 Lockout Devices

There is a dangerous exception to the requirement for locks. If the equipment is not lockable and cannot be made lockable with the use of a lockout device, it is acceptable to OSHA to use a tag only. It is important to note that there are many specialized lockout devices to make an energy isolation device that does not accept a lock lockable. If such a device exists, it is not acceptable to use a tag only. In this case, when you replace, repair, or renovate that piece of equipment, you must make it lockable.

Locks used as a lockout device must be distinctive from any other locks in the facility. They may be color-coded or they may be distinctive in some other way. Lockout locks may not be used on lockers, toolboxes, or other items that are not served by the lockout process.

Requirements for lockout hardware are stringent and require that they be substantial enough to prevent their removal without the use of excessive force or unusual techniques, such as the utilization of bolt cutters or other metal cutting tools.

Click Box

2.2.1 Lock Removal

There is a very specific procedure that must be in the energy control plan in the event an employee's lock must be cut off machinery or equipment. Oftentimes, an authorized employee forgets to remove a lock upon completion of work on machinery or equipment. Once this employee finishes the work shift and leaves the facility, the employer is not to simply just cut off the lock.

First, attempts to reach this employee must be made through any communication means necessary. Two people should perform these attempts, one of which should be a supervisor, that acts as a witness who can verify that these attempts were made. Once the employee is contacted, inquiry should be made as to whether he/she intended to leave the lock on or not, since the maintenance work may not have been completed and it was expected to be finished on the next shift.

Click Box

2.2.1 Lock Removal

Lockout/Tagout Program Lock Removal Form

General Information:	
Date & time of initial request to remove lock:	Lock owner's department/shop:
Name of lock owner whose lock/tag is to be removed:	Name of lock owner's supervisor:
Equipment & location:	
Is it absolutely necessary for the equipment to be reenergized before the lock owner can return to personally remove the lock? ☐ Yes ☐ No	
If "Yes", explain why:	
Document Reason for Removing Lock: (i.e. Lock owner called in sick, lock owner forgot to remove lock before leaving site, etc.)	

Document attempts to contact lock owner prior to removal:		
Date & Time	**Method of Attempted Contact**	**Result**

Lock Removal:	
☐ Verify that the lock will be removed by the supervisor of the lock owner or the supervisor's direct designee.	
☐ Verify that the supervisor of the lock owner or the supervisor's direct designee has reviewed the equipment to ensure that it can be safely reenergized.	
Lock removed by:	Date & time of removal:
Notifications:	
☐ Verify that lock owner has been informed of lock removal prior to beginning the next shift.	

Signature of Lock Owner's Supervisor: _____

If communication attempts were unproductive, then it is important to be certain that the employee is not still in the building. Check the piece of equipment and be sure that the employee may not still be inside or around it. If still not found, instruct an authorized employee to check the piece of equipment to be sure it is in working order. The employee may have left their lock on the equipment intentionally because work was not finished. At this point, the lock may be cut off.

When the employee returns to work, there are two things that must be done. One is the application of discipline according to the workplace's established procedures. The second is retraining, because the employee has obviously demonstrated a lack of knowledge that is a requirement of the LOTO process. The retraining should include a review of the procedures that were violated, ensuring that the employee understands the required processes to be followed.

Procedures that include the means to verify the employee who placed the lock's availability, the reasonable attempts to be made to contact the authorized employee, and the communication information to be shared with the employee before he/she resumes work are to be documented.

Click Box

2.3 Tagout Devices

As stated earlier, tagout devices are any prominent warning device, such as a tag with a means of attachment, that can be securely fastened to an energy isolation device to indicate that the machine or equipment must not be operated until the tagout device is removed. The tag identifies for all employees that the energy isolation device is off and should remain so.

On the rare occasion when a tag only must be used, the tag fastener must be attached by hand, be self-locking and be strong enough to withstand 50 pounds of pressure without detaching. The tag must be able to resist the environment without fading or disintegrating and provide the same level of protection as a lock. This is a dangerous exception, since an employer is required to demonstrate that the tagout will provide full employee protection that is at least as effective as a lock, which may be unlikely given the security of a standard tagout device.

2.3 Tagout Devices

Other hardware requirements specific to tagout devices include the following:

- Must be constructed and printed such that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.
- Must not deteriorate when used in a corrosive environment.
- Must be substantial to prevent inadvertent or accidental removal.
- Must include a legend such as: **"Do Not Start," "Do Not Open," "Do Not Operate,"** or **"Do Not Energize."**
- Must warn against any hazardous conditions if the machine or equipment is energized.

It is important to note that tags have many limitations, as they are only intended to be used as a warning device and equipment can still be started. Tags often provide authorized and affected employees a false sense of security, which then may create other hazardous conditions as a result.

Click Box

2.4 Energy Control Program

The intent of the energy control program is to ensure that before any employee services or maintains equipment where the potential exists for unexpected energization, start-up of equipment, or the release of stored energy, the machine or equipment is isolated from the energy source and rendered inoperative. Under the standard, a written energy control program is required whenever the scope of the standard applies to the workplace. The program has three core components:

- Detailed energy control procedures for each piece of machinery or equipment in the workplace.
- Periodic inspections requirements to ensure that lockout/tagout procedures are properly applied at the workplace. This component also includes the means utilized to enforce compliance which includes the employment of progressive discipline.
- Employee training and retraining programs

An employer is expected to develop procedures, training and inspections that meet the needs of their particular workplace and the particular types of machines and equipment they use and service as long as they meet the requirements of the standard.

2.5 Lockout/Tagout Procedures

An employer is required to develop, document, and use specific procedures to control potentially hazardous energy when employees are servicing or maintaining machinery or equipment. Many lockout/tagout programs contain one generic set of procedures that say something like, "locate and turn off all energy sources." That is not an energy control program or even a procedure. Written step-by-step procedures for every piece of equipment must be put in place.

There is a very limited exception. That exception is a piece of equipment that has no potential for stored or residual energy, has only a single energy source that will deenergize and deactivate, is locked out by a single device under the exclusive control of the employee, and does not create hazards for other employees. There also must be no history of accidents with this particular piece of equipment.

Click Box

2.5 Lockout/Tagout Procedures

At a minimum, the procedures should depict:

- A specific statement of the intended use of the procedure.
- Specific procedural steps for shutting down, isolating, blocking, and securing machinery or equipment to control hazardous energy.
- Specific procedural steps for the placement, removal, and transfer of lockout or tagout devices, and a description of who has responsibility for them.
- Specific requirements for testing machinery or equipment to determine and verify the effectiveness of lockout and tagout devices, as well as any other energy control measures.

2.5.2 Machine-Specific Procedures

Specific procedural steps are the steps required for that particular piece of machinery or equipment. The standard requires that the procedures should clearly and specifically outline specific procedural steps for shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy with specific procedural steps for the placement, removal and transfer of lockout/tagout devices.

On the following slide is an example of specific lockout/tagout procedures that incorporate a description and location of the energy sources, as well as procedures for the lockout application steps and the lockout release steps for a piece of equipment in the facility:

Click Box

2.5.2 Machine-Specific Procedures

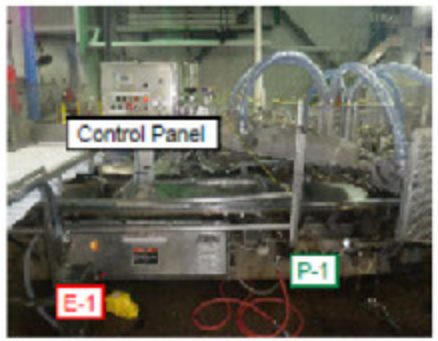
LOCKOUT PRO™

LOCKOUT/TAGOUT POSTED PROCEDURE

ID#: SAP 10003326

Description:	Cryovac #7	Created:	8/28/2010	by: Christopher M. Rogers
Facility:	Tar Heel	Revised:	2/11/2011	by: Christopher M. Rogers
Location:	Conversion (Polywrap)	Next Audit:	8/28/2011	by:

2 Lockout Points



Energy Source	Device	Location	Method	Check
Electrical 480 volts	Lock	Disconnect E-1 is located on the Bottom-Left side of the machine.	Turn Disconnect to the off position and lock out.	Attempt to restart at control panel.
Pneumatic 18 psi	Ball valve lockout	Ball Valve P-1 is located on the Bottom-Right side of the machine.	Turn Valve to the off position and lock out.	Open drain valve to dissipate pressure.

LOCKOUT PRO™

LOCKOUT/TAGOUT POSTED PROCEDURE

ID#: SAP 10003326

Notes

LOCKOUT APPLICATION STEPS

#	Step	Instruction	Additional Info
1	Notify Employees	Notify all affected employees that the machine or equipment will be shutdown and locked out.	
2	Review Procedure	Ensure that each authorized employee understands the type and magnitude of the energy present, the associated hazards and the proper methods of control.	
3	Shutdown Equipment	If the machine or equipment is operating, shut it down by the normal stopping procedure.	
4	Isolate Energy	De-activate the energy isolating devices(s) so that the machine or equipment is isolated from the energy source(s).	
5	Lockout Controls	Lockout the energy isolating device(s) as indicated on the front of this procedure.	
6	Dissipate Energy	Dissipate any stored or residual energy as indicated on the front of this procedure.	
7	Verify Isolation	Verify that the energy source has been isolated as indicated on the front of this procedure.	

LOCKOUT RELEASE STEPS

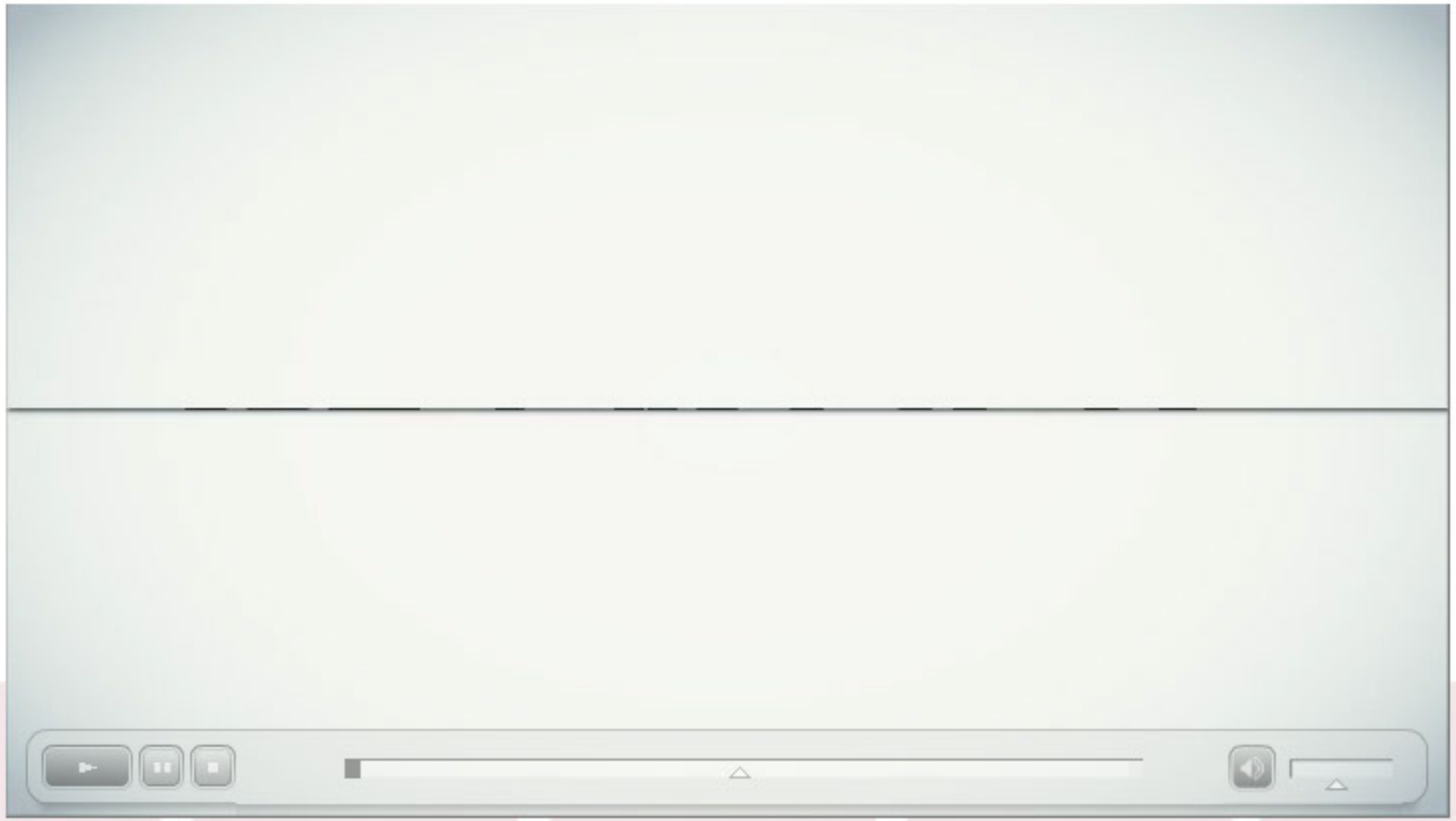
#	Step	Instruction	Additional Info
1	Inspect Equipment	Check the equipment to ensure that the components are operationally intact.	
2	Check Area	Check the immediate area to ensure that all employees have been safely positioned, and that any nonessential items have been removed.	
3	Check Neutral	Verify that operating controls are in neutral.	
4	Re-Energize	Remove the lockout device(s) and activate the energy isolating device(s) to re-energize the equipment.	
5	Notify Employees	Notify affected employees that the servicing or maintenance is completed and the equipment is ready for use.	
6	Startup Equipment	Startup equipment and monitor for several operating cycles to ensure it is functioning properly.	

Procedure Change Notification

Contact your supervisor if you have any questions or concerns about the accuracy or effectiveness of this procedure.

2.5.3 Group Lockout/Tagout

Group lockout/tagout refers to procedures to be followed when a group of employees is performing service or maintenance that offer the group the same protection that the standard provides to individual employees. Group LOTO is very often misunderstood, as it operates as if each individual had locked out and tagged every energy source and released all stored energy. This means that a supervisor should not go out on his/her own, lockout a piece of equipment, and then send maintenance employees to work on that same piece of equipment. This is because the maintenance employees would not have had the opportunity to check for themselves that the LOTO is correct and that they may not have the same level of protection as if they had done it themselves. Click play on the video provided to watch how a group lockout box can save both time and money.



Click Box

2.5.3 Group Lockout/Tagout

Group Device

A group device locks the energy isolation device and has multiple holes for multiple locks. It is designed such that it cannot be opened until every single lock is removed. With this type of group LOTO, each individual working on the piece of equipment places their own personal lock on these devices at every LOTO.

Click Box

2.5.3 Group Lockout/Tagout

Group Box

A group box involves the placing of only one lock at each LOTO point, then taking the only keys for these locks and placing them in a lockable box. Every employee working on the piece of equipment places their lock on the lockable box. This keeps anyone from retrieving the keys to unlock any of the locks until every employee has removed their lock from the LOTO box. Again, each employee would have the right to review a set of the procedures and ensure the LOTO was done correctly.

Either of these group LOTO types would satisfy the requirement to have each authorized employee affix a personal lockout or tagout device when work begins and remove it when work is completed. Along with this group LOTO requirement is the need to have a single authorized employee to be designated that coordinates the effort to ensure continuity of protection.

This continuity of protection should also be maintained during shift or personnel changes. This is accomplished by providing for the orderly transfer of device protection between outgoing and incoming employees, which will help to minimize exposure to hazards from the unexpected energization or start-up of a machine or equipment or the release of stored energy.

Click Box

2.5.4 Outside Personnel

Whenever contractors and other outside servicing personnel perform tasks covered by the lockout/tagout standard, they are to adhere to all of the requirements of the standard. The outside employer/contractor and the onsite employer must inform each other of their respective lockout/tagout procedures. Lastly, the onsite employee must ensure that their employees understand and comply with the restrictions of the outside employer's energy control program.

2.5.5 Testing Machines

Oftentimes, the authorized employee needs to temporarily restore energy to a machine or piece of equipment during servicing or maintenance to test and/or reposition the machine or equipment. Lockout or tagout devices may be removed temporarily in order to perform these tasks.

The following activities need to be performed in sequence for the temporary removal of the lockout/tagout devices:

- The machine or equipment must be cleared of tools and materials
- Employees must be removed from the machine or equipment area
- Devices may then be removed
- Authorized employees may then proceed to energize and test or position the equipment or machinery
- Once the testing or positioning process is complete, all systems must be de-energized and energy control measures reapplied to continue the servicing and/or maintenance

Click Box

2.6 Periodic Inspection

The purpose of a periodic inspection is to ensure that the energy control procedures continue to be implemented properly, the employees are familiar with their responsibilities, and any deviations or procedural inadequacies that are observed are corrected. The periodic inspection must be performed at least annually by an authorized employee not involved in the energy control procedure being inspected. This may mean that an employer must determine a rotation of audits over the course of each year to ensure that every procedure gets the attention that it deserves.

The employer is to identify any deficiencies or deviations in the current procedures and correct them. These may include employees not carrying out parts of the procedure, the procedures may be in need of updating due to new equipment or new conditions, the replacement of locks or tags, the updating of written procedure information, or any of a number of possible flaws in a given procedure.

Once the inspection is completed, a review process is to take place as part of the procedural audit. When the lockout process is utilized, the inspector must review each authorized employee's responsibilities under the written procedure with that employee. When the tagout process is utilized, the inspector must review both the authorized and affected employee's responsibilities with those employees for the energy control procedure being inspected.

2.6 Periodic Inspection

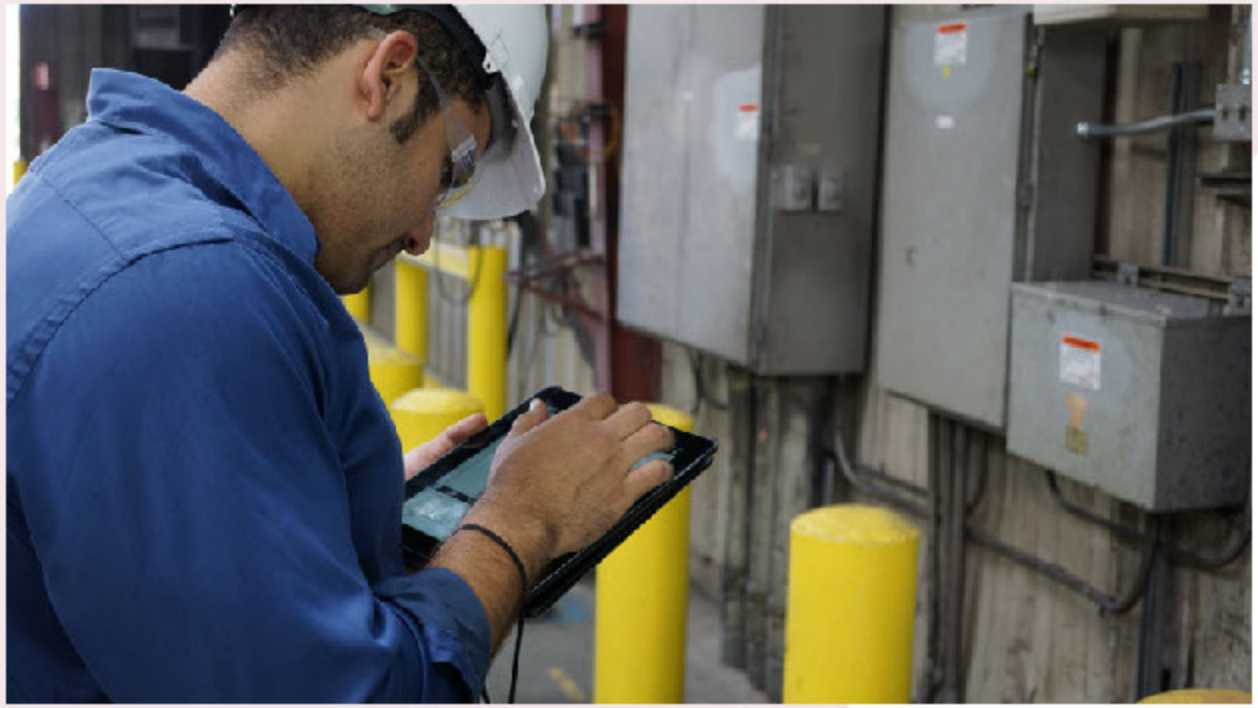
The final stage of the auditing process is an official certification by the employer. The employer must certify that the periodic inspections have been performed and include the following information in the certification:

- Identification of the machinery or equipment on which the procedure was utilized
- The date of the inspection
- Identification of the employees included in inspection
- Identification of the person who performed the inspection

Click Box

2.6 Periodic Inspection

Given that there may be numerous pieces of machinery and equipment in any workplace, OSHA has stated that an employer may group together separate machine-specific procedures into one procedure for purposes of complying with the standard, so long as the machines or equipment in the group have the same or similar types of control measures. Specifically, machines and equipment may be grouped together in one lockout tagout procedure if they all are listed or identified in the scope of the energy control procedure and if they all have the same or similar:



- Procedural steps for shutting down, isolating, blocking, securing, and dissipating stored energy in machines or equipment,
- Procedural steps for shutting down, isolating, blocking, securing, and dissipating stored energy in machines or equipment,
- Procedural steps for the placement, removal, and transfer of the lockout or tagout devices and the responsibility for them, and
- Requirements for testing a machine or equipment to determine and verify the effectiveness of LOTO devices and other control measures.

Click Box

2.6 Periodic Inspection

As an example, an employer might have 10 power presses that are the same or substantially similar. This employer can develop a single written machine specific procedure to cover all 10 of the presses. Therefore, the employer would only be required to conduct an inspection of that one procedure, as opposed to conducting 10 separate procedure inspections.

Should there be multiple employees authorized to implement one particular lockout tagout procedure, OSHA does not expect the inspector to observe *every* authorized employee implementing the energy control procedure on the machine or equipment on which he or she is authorized. Rather, the inspector performing the inspection may observe and talk with a representative number of such employees implementing the procedure in order to obtain a reasonable reflection of the servicing or maintenance work practices being evaluated.

Click Box

2.7 Employee Training

Employees must be trained so that they understand the purpose and function of the energy control program and acquire the knowledge and skills necessary for the safe application, usage and removal of the energy controls.

Click Box

2.7.1 Levels of Training

Beyond this training, when tagout systems are used, employers must train employees in the following limitations of tags:

- Tags are essentially warning devices affixed to energy isolating devices and do not provide the physical restraint on those devices that is provided by a lock
- When a tag is attached to an energy isolating means, it is not to be removed without authorization and it is never to be bypassed, ignored, or otherwise defeated
- Tags must be legible and understandable by all employees
- Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace
- Tags may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use

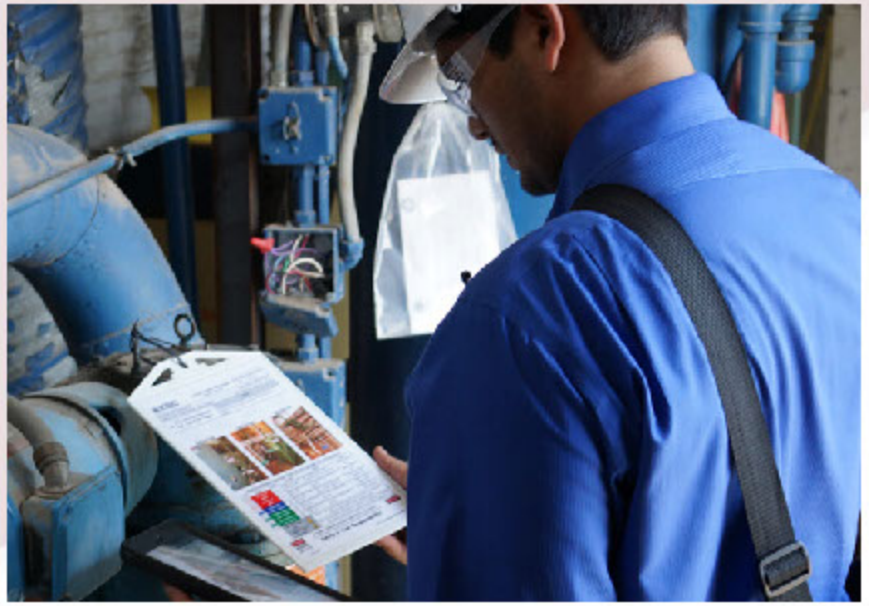
Click Box

2.7.2 Retraining

Those responsible for safety in their organizations know that the importance of safety training can never be emphasized enough. With this, all employees must be retrained in lockout/tagout procedures under the following conditions:

- A change in job assignments
- A change in machines, equipment, or processes that present a new hazard
- A change in the energy control procedures
- Periodic inspections reveal that there are deviations in the energy control procedure
- The employer believes that there are deviations from, or inadequacies in, the employee's knowledge or use of the energy control procedures

Retraining could be triggered by other events, as well. For example, an employee working with an energy control procedure might be injured during the course of his/her duties, or a "near miss" might occur in which no one is injured but a deviation from established energy control procedures occurred. Both of these cases would typically trigger the need for retraining.



2.7.3 Certification

The employer must certify that training or retraining took place. This certification must include each employee's name, the date of the training, and the signature of the employer representative conducting the training.

Click Box

2.7.4 Compliance and Enforcement

While an employer may have a compliant Energy Control Program, it may not necessarily be effective in avoiding the risk for injuries or even fatalities. It has been suggested that effective enforcement of appropriate lockout/tagout procedures is typically to blame. Weak supervision, ineffective training, or overlooking hazardous energy sources have often been the reasons that enforcement may not be adequate in a workplace.

Oftentimes, it takes a serious consequence to ensure that employees do not take shortcuts to avoid following established procedures. Progressive disciplinary steps should be adopted for those who violate the documented procedures, which could include discipline up to and including termination. While this graduated system of disciplinary actions for lockout/tagout may correlate with other standard safety personnel policies and procedures, some companies choose to take a “Zero Tolerance” policy when it comes to lockout tagout violations, meaning termination upon the first offense.

Click Box

2.7.4 Compliance and Enforcement

Since the primary investment for compliance to this important standard is the investment of time and energy to train employees, it is a good idea to incorporate a demonstration of the magnitude of the energy hazards in the training provided. Employees who operate heavy machinery every day sometimes lose respect for the energy when they aren't reminded of what it can do. Once the severity of a potential energy incident is reviewed in a training environment, it is likely that the training will enhance compliance to the established procedures in place.

Lastly, employees sometimes forget that there are many sources of energy. Often, employees just don’t understand the full scope of the hazards in terms of energy and need to be reminded that lockout/tagout is not exclusively a question of electricity as an energy source. Incorporating the fundamental concept of various energy sources, both primary and secondary, is key during any training.

Click Box